APPENDIX 1.1:

APPROVED TRAFFIC STUDY SCOPING AGREEMENT

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January 25, 2019

Mr. David Hammer
City of Chino
13220 Central Avenue
Chino, CA 91708

SUBJECT: SCOPING ASSUMPTIONS FOR THE OC PRADO TRAFFIC IMPACT ANALYSIS

Dear Mr. David Hammer:

Urban Crossroads, Inc. has conducted an initial assessment of the proposed OC Prado development (**Project**) to establish a traffic impact analysis (**TIA**) scope of work that would be prepared in support of a Project Environmental Impact Report (**EIR**). The Project is located on the southeast corner of Mountain Avenue and Bickmore Avenue in the City of Chino. Based on the results of this assessment, the following memo outlines the project-related trip generation, trip distribution patterns, proposed study area and analysis scenarios expected to be included in the Project traffic impact analysis. The following outlined scoping assumptions also can be utilized in the preparation of a traffic scoping agreement for the future Project TIA, which would be reviewed and approved by City staff.

PROJECT DESCRIPTION

Exhibit 1 illustrates a preliminary site plan for the Project. The proposed Project is anticipated to be developed by Year 2022. As indicated on Exhibit 1, the total development is proposed to consist of up to 2,082,700 square feet of industrial uses. For purposes of scoping the TIA, the following land uses are assumed:

- Building 1: 1,168,700 square feet of High-Cube Fulfillment Center Warehouse use
- Building 2: 814,000 square feet of High-Cube Without Cold Storage use
- Remainder of Building 2: 100,000 square feet of High-Cube with Cold Storage use
- Total of 2,082,700 square feet

Access to the proposed Project would be provided via the site adjacent streets of Bickmore Avenue and Mountain Avenue. Exhibit 2 illustrates the Project location.

PROPOSED ANALYSIS SCENARIOS

The following analysis scenarios are proposed:

- Existing (2018)
- Existing plus Project, with analysis broken down for:
    - Building 1
    - Building 1 + Building 2
- Opening Year Cumulative (2022) Without Project
- Opening Year Cumulative (2022) With Project (Building 1 + Building 2)
- Horizon Year (2040) Without Project – With Limonite Avenue Extension
- Horizon Year (2040) With Project (Building 1 + Building 2) – With Limonite Avenue Extension

TRIP GENERATION

Trip generation represents the amount of traffic that is attracted and produced by a development, and is based upon the specific land uses planned for a given project. Trip generation rates for the Project are shown in Table 1 for both passenger car equivalent (PCE) and actual vehicles. The trip generation summary illustrating daily, and peak hour trip generation estimates for the proposed Project in actual vehicles and PCE are shown in Table 2. The trip generation rates used for this analysis are based upon information collected by the Institute of Transportation Engineers (ITE) as provided in their Trip Generation Manual (10th Edition, 2017) and the DRAFT TUMF High-Cube Warehouse Trip Generation Study (WSP, November 6, 2018). The following land uses, and vehicle mixes have been utilized:

- High-Cube Fulfillment Center Warehouse has been used to derive site specific trip generation estimates for up to 1,982,700 square feet of the proposed Project. The ITE Trip Generation Manual (2017) has trip generation rates for high-cube fulfillment center use (ITE land use code 155), however, these rates are unreliable because they are based on limited data (i.e., one to two surveyed sites) and the ITE Trip Generation Manual recommends the use of local data sources where available. As such, the trip-generation statistics published in the DRAFT TUMF High-Cube Warehouse Trip Generation Study (WSP, November 6, 2018) which was commissioned by the Western Riverside Council of Governments (WRCOG) in support of the Transportation Uniform Mitigation Fee (TUMF) update, has been utilized for the high-cube fulfillment center use. The WSP trip generation rates were published in November 2018 and are based on data collected at 11 local high-cube fulfillment center sites. However, the WSP study does not include a split for inbound and outbound vehicles, as such, the inbound and outbound splits per the ITE High-Cube Warehouse Vehicle Trip Generation Analysis (October 2016) have been utilized.
- ITE land use code 157 (High-Cube with Cold Storage Warehouse) has been used to derive site specific trip generation estimates for up to 100,000 square feet of the proposed Project. The

truck percentage was obtained from the ITE's High Cube Warehouse Vehicle Trip Generation Analysis (October 2016). The vehicle mix varies by peak hour and overall daily: 69.2% passenger cars in the AM peak hour, 78.3% passenger cars in the PM peak hour, and 67.8% passenger cars weekday daily, with the remaining percentages associated with heavy trucks. Trip generation for heavy trucks was further broken down by truck type (or axle type). The total truck percentage is comprised of 3 different truck types: 2-axle, 3-axle, and 4+-axle trucks. For the purposes of this analysis, the percentage of trucks, by axle type, were obtained from the SCAQMD Warehouse Truck Trip Study Data Results and Usage (2014) recommended truck mix. The SCAQMD has recently performed surveys of existing facilities and compiled the data to provide interim guidance on the mix of heavy trucks for these types of high-cube warehousing/distribution facilities. Based on this interim guidance from the SCAQMD, the following truck fleet mix was utilized for the purposes of estimating the truck trip generation for the site (with cold storage): 34.7% of the total trucks as 2-axle trucks, 11.0% of the total trucks as 3-axle trucks, and 54.3% of the total trucks as 4+-axle trucks.

Finally, PCE factors were applied to the trip generation rates for heavy trucks (large 2-axles, 3-axles, 4+-axles). PCEs allow the typical "real-world" mix of vehicle types to be represented as a single, standardized unit, such as the passenger car, to be used for the purposes of capacity and level of service analyses. The PCE factors are consistent with the recommended PCE factors in Appendix B of the San Bernardino County Congestion Management Program (CMP), 2016 Update.

As shown in Table 2, the proposed Project is anticipated to generate a net total of 4,596 actual vehicle trip-ends per day with 261 AM peak hour trips and 351 PM peak hour trips. In comparison, the proposed Project is anticipated to generate a net total of 5,916 PCE trip-ends per day, 330 PCE AM peak hour trips and 420 PCE PM peak hour trips (see Table 2).

TRIP DISTRIBUTION

The Project trip distribution and assignment process represents the directional orientation of traffic to and from the Project site. The E+P and Opening Year Cumulative trip distribution patterns utilize the existing roadway system while the Horizon Year trip distribution patterns assumes future roadway connections based on the City of Chino and City of Ontario General Plans (and those of surrounding agencies).

Exhibit 3 illustrates the E+P and Opening Year Cumulative passenger car trip distribution patterns that are based on a SBTAM select zone run for a zone containing the Project, with modifications to utilize existing roadways. Exhibit 4 illustrates the passenger car trip distribution patterns for Horizon Year (With Limonite Avenue Extension) traffic conditions. The Horizon Year passenger car trip distribution patterns are based on a SBTAM select zone run.

Exhibit 5 illustrates the truck trip distribution patterns for E+P and Opening Year Cumulative conditions. As shown on Exhibit 5, trucks are anticipated to utilize designated truck routes such as Bickmore Avenue

to Euclid Avenue (SR-83), Kimball Avenue, El Prado Avenue, Central Avenue, Mountain Avenue, Pine Avenue, Archibald Avenue, and Limonite Avenue to reach regional State highways such as the SR-71, SR-60, and I-15 Freeways. These travel patterns are anticipated to change with the addition of new future facilities for Horizon Year traffic conditions (i.e., the SR-71 Freeway and Pine Avenue access via future extension of Pine Avenue). As such, Exhibit 6 shows the truck trip distribution patterns for Horizon Year (With Limonite Avenue Extension) traffic conditions.

INTERSECTION ANALYSIS LOCATIONS

Exhibit 2 depicts the recommended intersection analysis locations, based upon the Project trip generation and trip distribution patterns included as part of this letter. The recommended intersection analysis locations are based on the highest Project traffic contribution presented for either Opening Year Cumulative or Horizon Year scenarios (i.e., 50 peak hour trip criteria). A list of study area intersections is provided in Table 3.

The San Bernardino County Transportation Authority (SBCTA) Congestion Management Program (CMP) intersections, where applicable, are illustrated on Exhibit 2. The general preparation of the traffic impact study for this Project will continue to be in conformance with the typical requirements of the San Bernardino County CMP.

FREEWAY OPERATIONS ANALYSIS

Based on the Project's anticipated contribution to the near-by State Highway System and at the request of Caltrans District 8 on other recent projects in the area, the following State highway facilities should also be evaluated in the TIA:

Basic Freeway Segments:

- SR-71 Freeway, North of Central Avenue
- SR-71 Freeway, Central Avenue to Pine Avenue
- SR-71 Freeway, Pine Avenue to Butterfield Ranch Road/Euclid Avenue (SR-83)
- SR-71 Freeway, south of Butterfield Ranch Road/Euclid Avenue (SR-83)
- SR-60 Freeway, west of Euclid Avenue (SR-83)
- SR-60 Freeway, east of Euclid Avenue (SR-83)

Merge/Diverge Ramp Junctions:

- SR-71 Freeway Southbound, Off-Ramp at Central Avenue
- SR-71 Freeway Northbound, On-Ramp at Central Avenue
- SR-71 Freeway, Southbound, On and Off Ramps at Pine Avenue

- SR-71 Freeway Northbound, On and Off Ramps at Pine Avenue
- SR-71 Freeway Southbound, Loop On-Ramp at Butterfield Ranch Road
- SR-71 Freeway Northbound, Off-Ramp at Euclid Avenue (SR-83)
- SR-60 Freeway Westbound, On and Off Ramps at Euclid Avenue (SR-83)
- SR-60 Freeway Eastbound, On and Off Ramps at Euclid Avenue (SR-83)

LEVEL OF SERVICE (LOS) CRITERIA

The definitions of an operational deficiency for each of the applicable jurisdictions are as follows:

CITY OF CHINO

According to the City of Chino, LOS D is the minimum acceptable condition that should be maintained during the peak commute hours. Therefore, any intersection operating at LOS E or F is considered deficient. LOS will also be reported by movement for the City's review.

CITY OF ONTARIO

The City of Ontario utilizes a minimum acceptable LOS of LOS E.

CMP

The CMP definition of deficiency is based on maintaining a level of service standard of LOS E or better, except where an existing LOS F condition is identified in the CMP document.

CALTRANS

For the study intersections at Caltrans freeway-to-arterial ramps, LOS D is the minimum acceptable condition that should be maintained during the peak commute hours.

SPECIAL ISSUES

The following special issues will be addressed in the traffic study:

- Truck turning templates will be used to address how Project truck traffic (e.g., large trucks such as a WB-67) would enter and exit the Project site to determine radii at curb returns, radii of streets per Highway Design Manual, and widths/radii required for on-site maneuvering for two-way truck traffic. Truck turn templates will be utilized at each applicable Project driveway and the site adjacent intersections of Mountain Avenue at Bickmore Avenue and Mountain Avenue at El Prado Road.
- Provide a queuing analysis for the Project driveways and site adjacent signalized intersections for Horizon Year (2040) traffic conditions to determine necessary storage lengths. Site plan and proposed driveway placement/median openings will need to be reviewed for locations and

queuing of trucks/cars based on proximity to the intersection of Mountain Avenue/Bickmore Avenue and distances to other driveways. This review shall occur prior to finalizing site plan.

- Traffic signal warrant analysis will be conducted for all unsignalized study area intersections.
- "Fair-share" contributions for improvements not within the City's DIF program or located within other jurisdictions will be included in the TIA.

CUMULATIVE DEVELOPMENT PROJECTS

Exhibit 7 illustrates a cumulative development location map. A summary of the cumulative development projects is shown in Table 4. Please review to let us know if there are any projects that should be removed or provide information on new cumulative projects that should be added. Cumulative development projects will be utilized for evaluating Opening Year Cumulative traffic conditions, in conjunction with the addition of background growth (i.e., compounded growth of 2.0 percent per year over 4 years).

CONSTRUCTION ANALYSIS

Haul trips for the soil import from each borrow site will be determined based on information provided by the Project team. The four borrow sites are shown on Exhibit 8. Exhibit 9 illustrates the haul routes from the site to each of the borrow sites. It is our understanding that haul routes to each of the borrow sites will not occur concurrently. Weekday AM and PM peak hours will be evaluated, if applicable, based on the anticipated hours of construction activity. Up to 6 study area intersections will be evaluated for the following analysis scenarios based on the anticipated construction traffic between the Project site and the adjacent borrowed sites for soil:

- Existing plus Construction Traffic from Borrow Site #1
- Existing plus Construction Traffic from Borrow Site #3
- Existing plus Construction Traffic from Borrow Site #6
- Existing plus Construction Traffic from Borrow Site #2

CONCLUSION

Urban Crossroads, Inc. is pleased to submit this letter documenting the Project trip generation, trip distribution, and the recommended intersection analysis locations for the OC Prado Traffic Impact Analysis. We will continue to move forward towards completing the traffic study after receiving jurisdiction approval or comments finalizing the study area.

If you have any questions, please contact me directly at (949) 336-5978.

Respectfully submitted,

URBAN CROSSROADS, INC.

Aric Evatt, PTP
President

Charlene So, PE
Senior Associate

Attachments

EXHIBIT 1: PRELIMINARY SITE PLAN

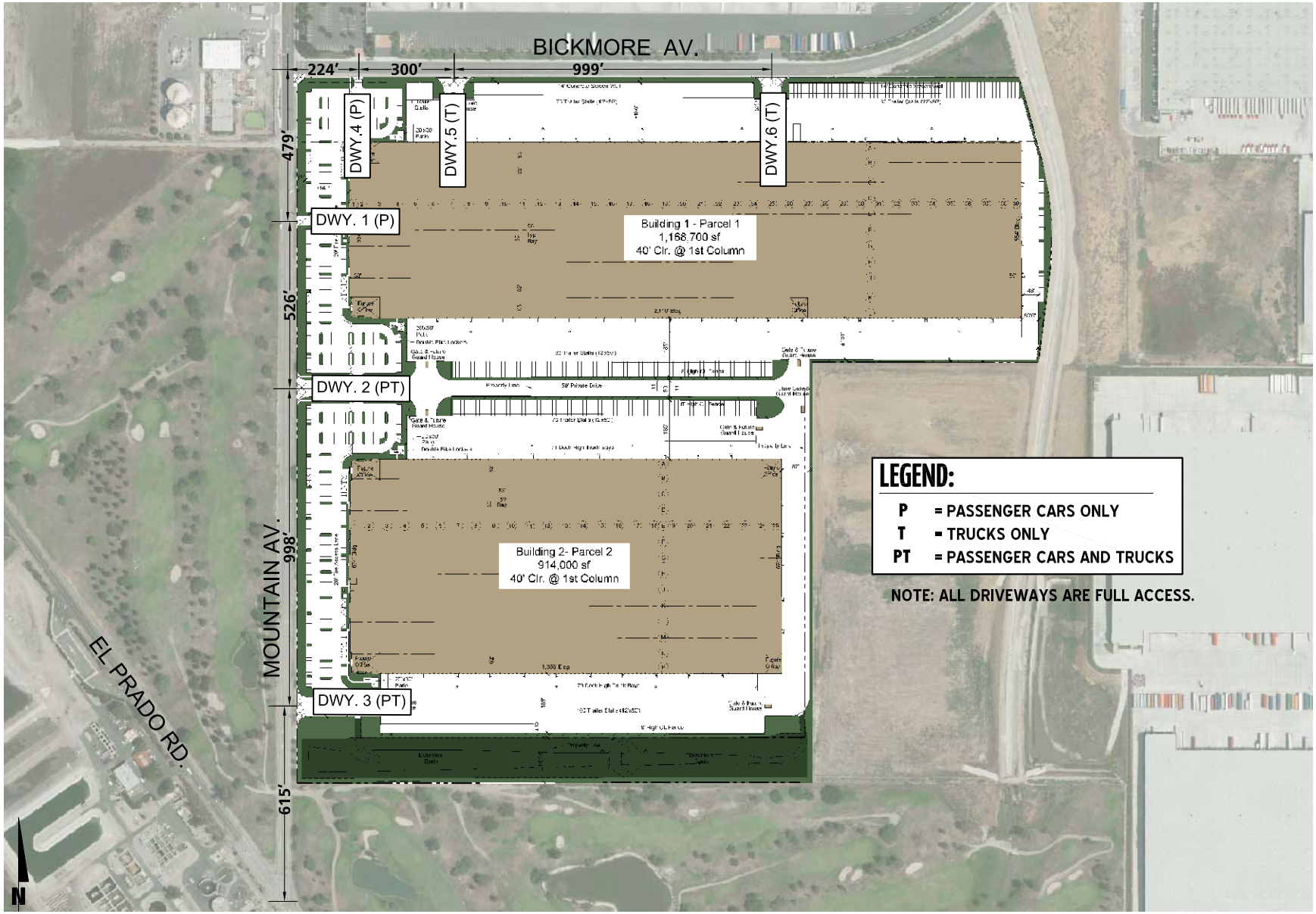
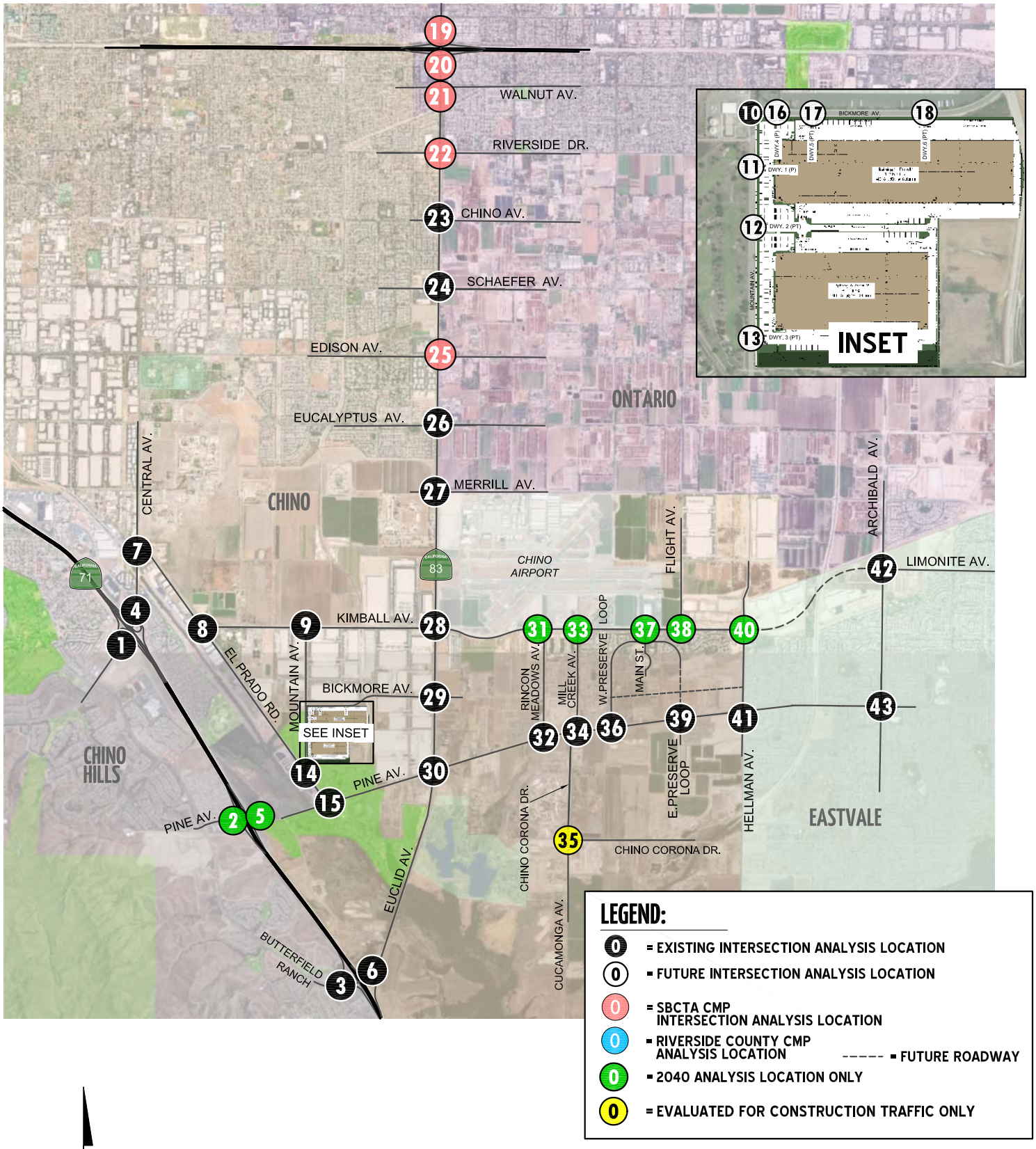


EXHIBIT 2: LOCATION MAP



LEGEND:

- = EXISTING INTERSECTION ANALYSIS LOCATION
- = FUTURE INTERSECTION ANALYSIS LOCATION
- = SBCTA CMP INTERSECTION ANALYSIS LOCATION
- = RIVERSIDE COUNTY CMP ANALYSIS LOCATION
- ----- = FUTURE ROADWAY
- = 2040 ANALYSIS LOCATION ONLY
- = EVALUATED FOR CONSTRUCTION TRAFFIC ONLY

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EXHIBIT 3: PROJECT (NEAR-TERM PASSENGER CAR) TRIP DISTRIBUTION

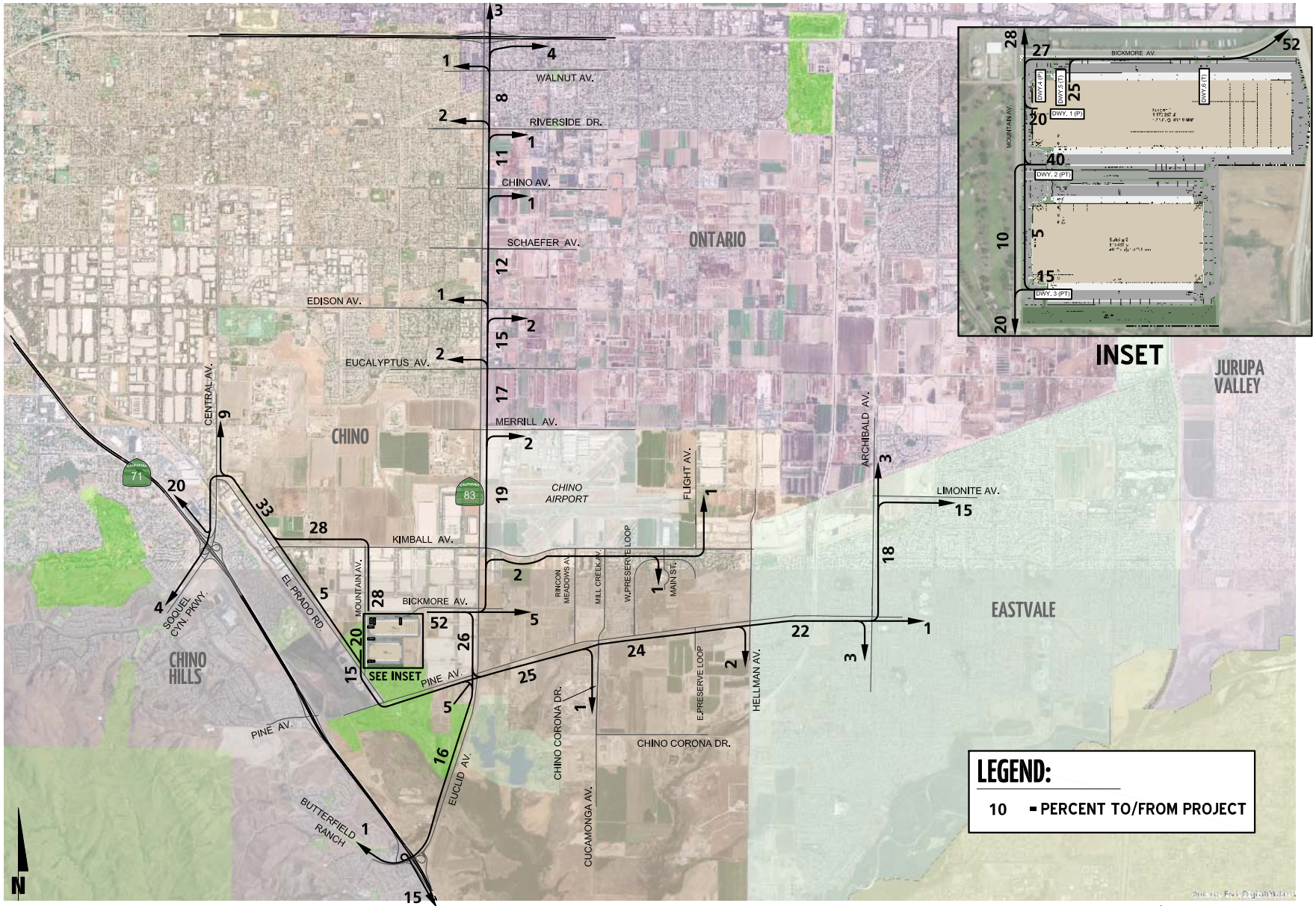

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EXHIBIT 4: PROJECT (HORIZON YEAR PASSENGER CAR) TRIP DISTRIBUTION

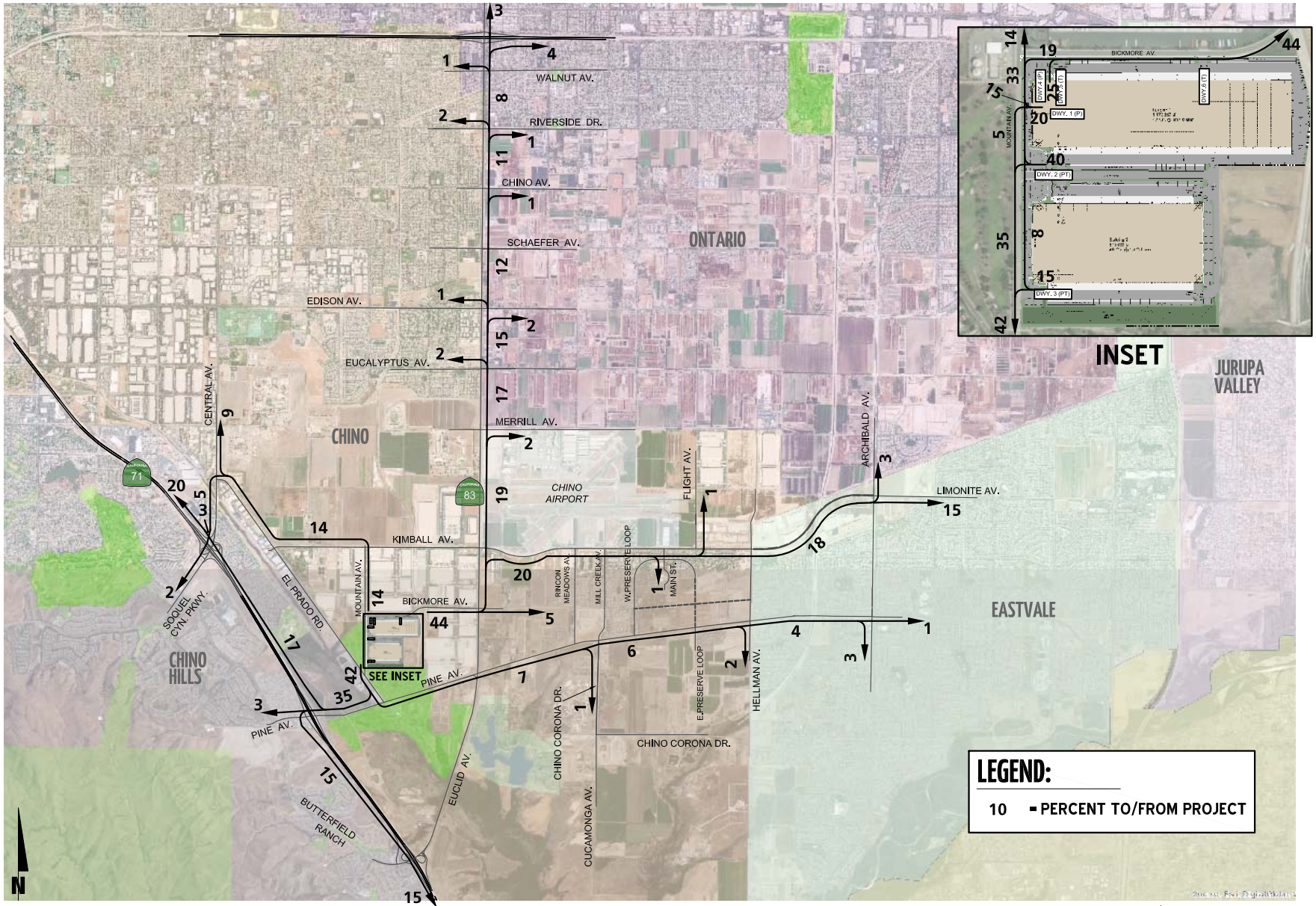

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EXHIBIT 5: PROJECT (NEAR-TERM TRUCKS) TRIP DISTRIBUTION

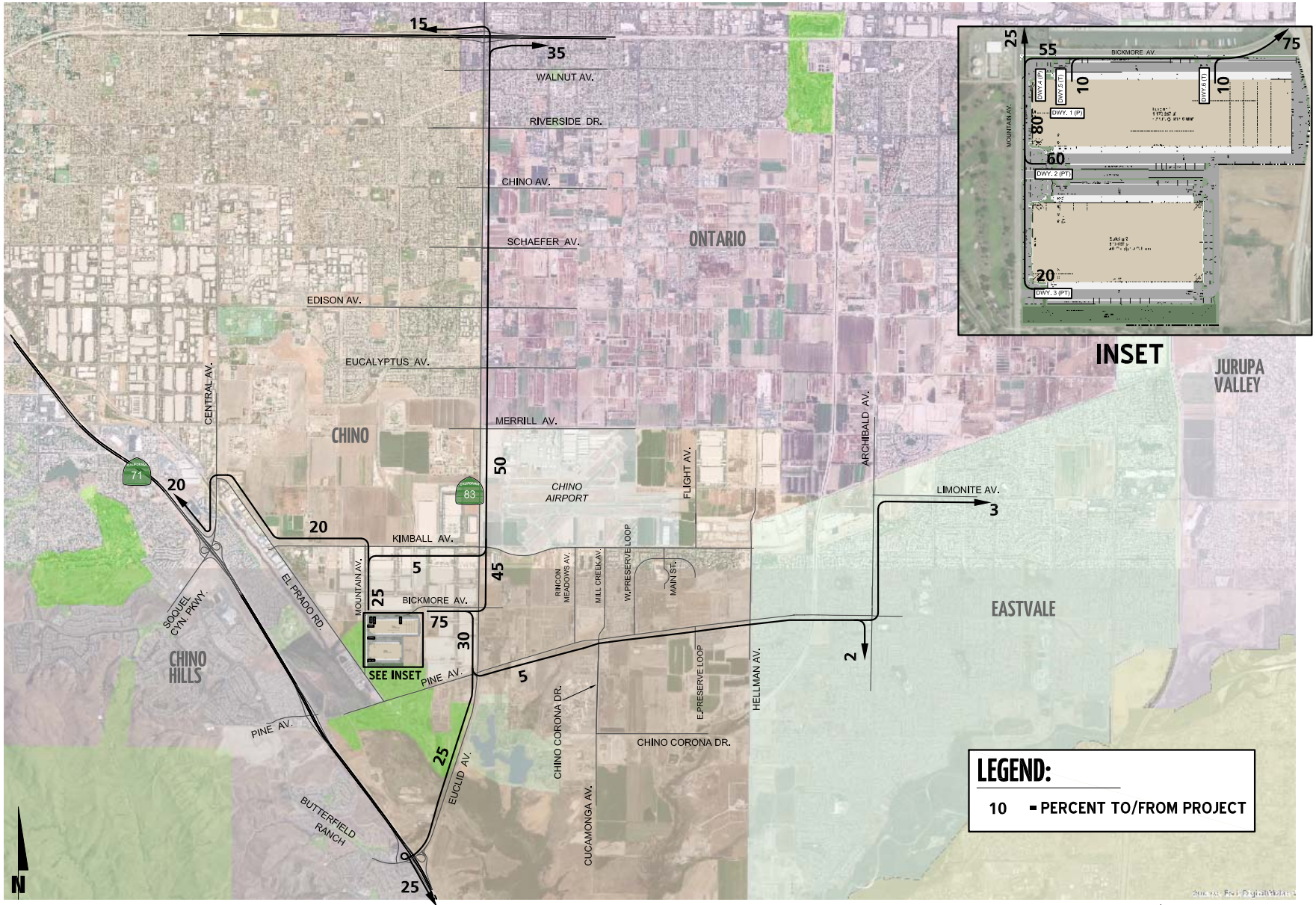

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EXHIBIT 6: PROJECT (HORIZON YEAR TRUCKS) TRIP DISTRIBUTION

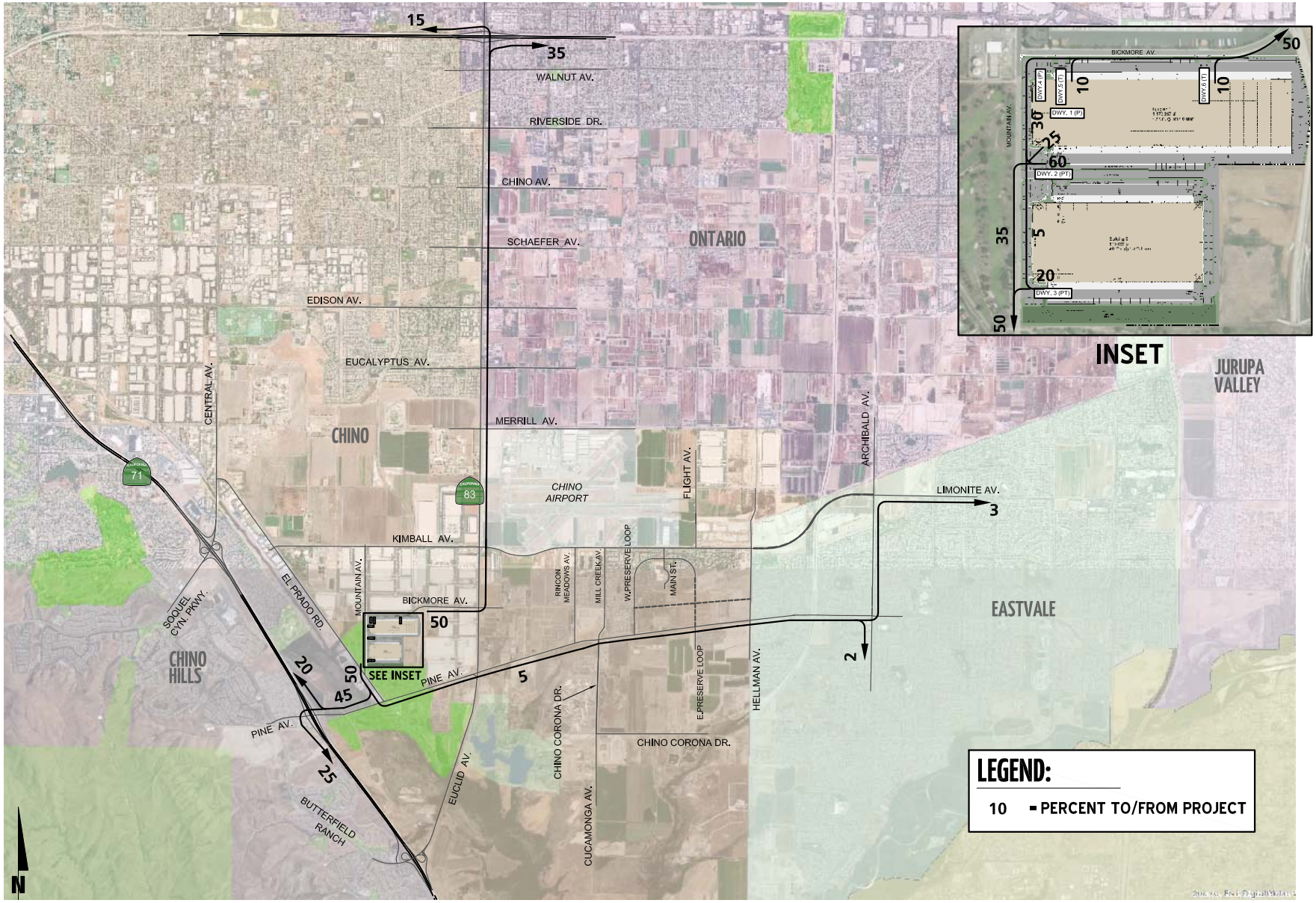

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EXHIBIT 7: CUMULATIVE DEVELOPMENT LOCATION MAP

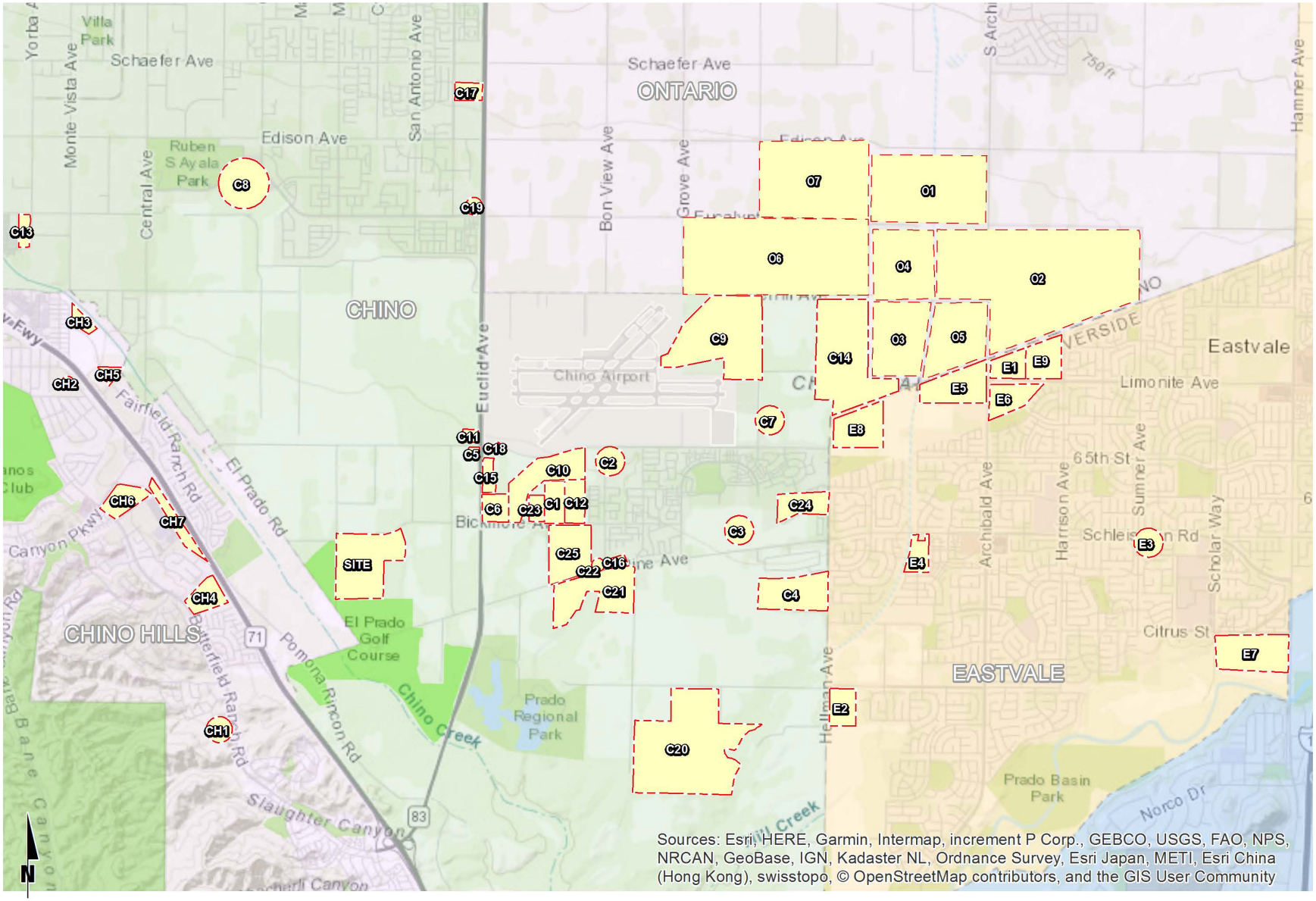
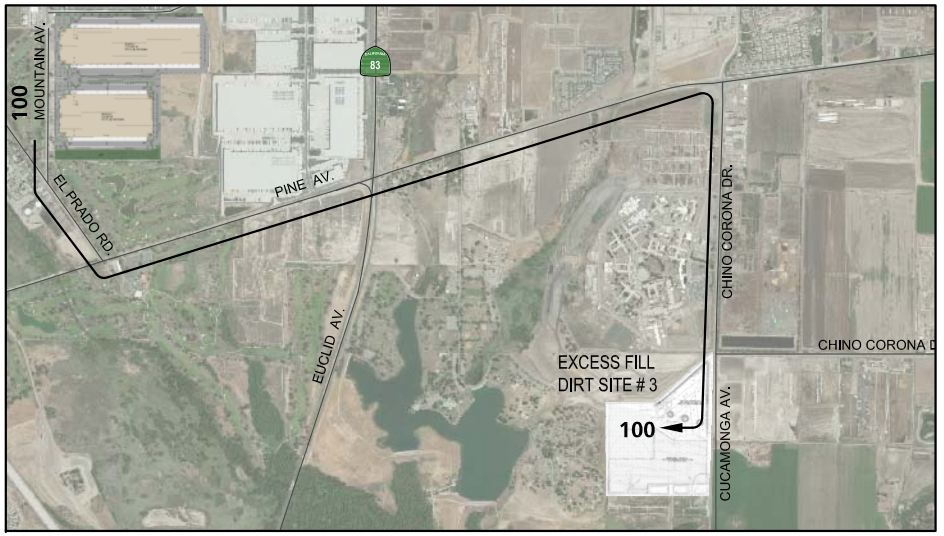


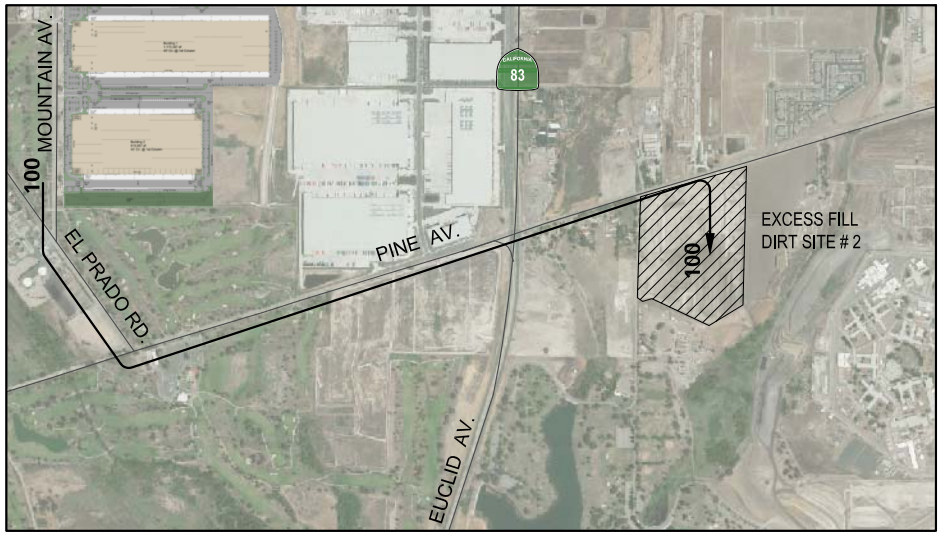
EXHIBIT 8: BORROW SITE LOCATION MAP



EXHIBIT 9: HAUL ROUTES BETWEEN THE PROJECT AND BORROW SITES









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LEGEND:

10 = PERCENT TO/FROM PROJECT

N

Table 1

Project Trip Generation Rates

Land Use[1]	Units[2]	ITE LU Code	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Actual Vehicle Trip Generation Rates									
High-Cube Fulfillment Center Warehouse[3]	TSF	--	0.098	0.029	0.127	0.048	0.123	0.171	2.209
Passenger Cars (AM-84.3%; PM-87.2%; Daily-82.2%)			0.082	0.025	0.107	0.042	0.107	0.149	1.816
2-4 Axle Trucks (AM-6.3%; PM-6.4%; Daily-7.6%)			0.006	0.002	0.008	0.003	0.008	0.011	0.168
5+-Axle Trucks (AM-9.4%; PM-6.4%; Daily-10.2%)			0.009	0.003	0.012	0.003	0.008	0.011	0.225
High-Cube Cold Storage Warehouse (With Cold Storage)[4]	TSF	157	0.085	0.025	0.110	0.032	0.088	0.120	2.120
Passenger Cars (AM-69.2%; PM-78.3%; Daily-67.8%)			0.059	0.018	0.077	0.025	0.069	0.094	1.437
2-Axle Trucks (AM-10.7%; PM-7.5%; Daily-11.2%)			0.009	0.003	0.012	0.002	0.007	0.009	0.237
3-Axle Trucks (AM-3.4%; PM-2.4%; Daily-3.5%)			0.003	0.001	0.004	0.001	0.002	0.003	0.075
4-Axle+ Trucks (AM-16.7%; PM-11.8%; Daily-17.5%)			0.014	0.004	0.018	0.004	0.010	0.014	0.371
Passenger Car Equivalent (PCE) Trip Generation Rates[5]									
High-Cube Fulfillment Center Warehouse[3]	TSF	155	0.098	0.029	0.127	0.048	0.123	0.171	2.209
Passenger Cars (AM-84.3%; PM-87.2%; Daily-82.2%)			0.082	0.025	0.107	0.042	0.107	0.149	1.816
2-4 Axle Trucks (AM-6.3%; PM-6.4%; Daily-7.6%) (PCE = 2.0)			0.012	0.004	0.016	0.006	0.016	0.022	0.336
5+-Axle Trucks (AM-9.4%; PM-6.4%; Daily-10.2%) (PCE = 3.0)			0.028	0.008	0.036	0.009	0.024	0.033	0.675
High-Cube Cold Storage Warehouse (With Cold Storage)[4]	TSF	157	0.085	0.025	0.110	0.032	0.088	0.120	2.120
Passenger Cars (AM-69.2%; PM-78.3%; Daily-67.8%)			0.059	0.018	0.077	0.025	0.069	0.094	1.437
2-Axle Trucks (AM-10.7%; PM-7.5%; Daily-11.2%) (PCE = 1.5)			0.014	0.004	0.018	0.004	0.010	0.014	0.355
3-Axle Trucks (AM-3.4%; PM-2.4%; Daily-3.5%) (PCE = 2.0)			0.006	0.002	0.008	0.002	0.004	0.006	0.150
4-Axle+ Trucks (AM-16.7%; PM-11.8%; Daily-17.5%) (PCE = 3.0)			0.043	0.013	0.056	0.011	0.031	0.042	1.114

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Tenth Edition (2017).

[2] TSF = thousand square feet; VFP = Vehicle Fueling Position

[3] Vehicle Mix Source: DRAFT TUMF High Cube Warehouse Trip Generation Study, WSP, November 6, 2018.
Inbound and outbound split source: High Cube Warehouse Vehicle Trip Generation Analysis, October 2016, ITE.

[4] Vehicle Mix Source: High Cube Warehouse Vehicle Trip Generation Analysis, October 2016, ITE.
Truck Mix: South Coast Air Quality Management District's (SCAQMD) recommended truck mix, by axle type for high-cube warehouse. PCE rates are per SBCTA.

Table 2

Project Trip Generation Summary

Land Use	Quantity	Units[1]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Project Trip Generation Summary (Actual Vehicles)									
High-Cube Fulfillment Center Warehouse (Building 1)	1,168.700	TSF							
Passenger Cars:			96	29	125	49	125	174	2,122
Truck Trips:									
2-4 axle:			7	2	9	4	9	13	196
5+-axle:			11	3	14	4	9	13	264
- Net Truck Trips			18	5	23	8	18	26	460
High-Cube Fulfillment Center Warehouse (Building 2)	814.000	TSF							
Passenger Cars:			67	20	87	34	87	121	1,478
Truck Trips:									
2-4 axle:			5	1	6	3	6	9	138
5+-axle:			8	2	10	3	6	9	184
- Net Truck Trips			13	3	16	6	12	18	322
High-Cube Warehouse (With Cold Storage) (Building 2)	100.000	TSF							
Passenger Cars:			6	2	8	3	7	10	144
Truck Trips:									
2-axle:			1	0	1	0	1	1	24
3-axle:			0	0	0	0	0	0	8
4+-axle:			1	0	1	0	1	1	38
- Net Truck Trips			2	0	2	0	2	2	70
Total Passenger Cars			169	51	220	86	219	305	3,744
Total Trucks			33	8	41	14	32	46	852
Truck %			20%	16%	19%	16%	15%	15%	23%
TOTAL NET TRIPS (Actual Vehicles)[2]			**202**	**59**	**261**	**100**	**251**	**351**	**4,596**
Project Trip Generation Summary (PCE)									
High-Cube Fulfillment Center Warehouse (Building 1)	1,168.700	TSF							
Passenger Cars:			96	29	125	49	125	174	2,122
Truck Trips:									
2-4 axle:			14	4	18	7	19	26	394
5+-axle:			32	10	42	11	28	39	790
- Net Truck Trips			46	14	60	18	47	65	1,184
High-Cube Fulfillment Center Warehouse (Building 2)	814.000	TSF							
Passenger Cars:			67	20	87	34	87	121	1,478
Truck Trips:									
2-4 axle:			10	3	13	5	13	18	274
5+-axle:			23	7	30	8	19	27	550
- Net Truck Trips			33	10	43	13	32	45	824
High-Cube Warehouse (With Cold Storage) (Building 2)	100.000	TSF							
Passenger Cars:			6	2	8	3	7	10	144
Truck Trips:									
2-axle:			1	0	1	0	1	1	36
3-axle:			1	0	1	0	0	0	16
4+-axle:			4	1	5	1	3	4	112
- Net Truck Trips			6	1	7	1	4	5	164
Total Passenger Cars (PCE)			169	51	220	86	219	305	3,744
Total Trucks (PCE)			85	25	110	32	83	115	2,172
TOTAL NET TRIPS (PCE)[2]			**254**	**76**	**330**	**118**	**302**	**420**	**5,916**

[1] TSF = thousand square feet

[2] TOTAL NET TRIPS = Passenger Cars + Net Truck Trips.

Table 3

Summary of Study Area Intersections

#	Intersection
1	SR-71 SB Ramps & Central Av.
2	SR-71 SB Ramps & Pine Av.
3	SR-71 SB Ramps & Euclid Av. (SR-83)
4	SR-71 NB Ramps & Central Av.
5	SR-71 NB Ramps & Pine Av.
6	SR-71 NB Ramps & Euclid Av. (SR-83)
7	Central Av. & El Prado Rd.
8	El Prado Rd. & Kimball Av.
9	Mountain Av. & Kimball Av.
10	Mountain Av. & Bickmore Av.
11	Mountain Av. & Driveway 1 - Future Intersection
12	Mountain Av. & Driveway 2 - Future Intersection
13	Mountain Av. & Driveway 3 - Future Intersection
14	Mountain Av. & El Prado Rd.
15	El Prado Rd. & Pine Av.
16	Driveway 4 & Bickmore Av. - Future Intersection
17	Driveway 5 & Bickmore Av. - Future Intersection
18	Driveway 6 & Bickmore Av. - Future Intersection
19	Euclid Av. (SR-83) & SR-60 WB Ramps
20	Euclid Av. (SR-83) & SR-60 EB Ramps
21	Euclid Av. (SR-83) & Walnut St.
22	Euclid Av. (SR-83) & Riverside Dr.
23	Euclid Av. (SR-83) & Chino Av.
24	Euclid Av. (SR-83) & Schaefer Av.
25	Euclid Av. (SR-83) & Edison Av.
26	Euclid Av. (SR-83) & Eucalyptus Av.
27	Euclid Av. (SR-83) & Merrill Av.
28	Euclid Av. (SR-83) & Kimball Av.
29	Euclid Av. (SR-83) & Bickmore Av.
30	Euclid Av. (SR-83) & Pine Av.
31	Rincon Meadows Av. & Kimball Av.
32	Rincon Meadows AV. & Pine Av.
33	Mill Creek Av. & Kimball Av.
34	Mill Creek Av. & Pine Av.
35	Cucamonga Av. & Chino Corona Rd.
36	Main St. & Kimball Av.
37	W. Preserve Loop & Pine Av.
38	Flight Av. & Kimball Av.
39	E. Preserve Loop & Pine Av.
40	Hellman Av. & Kimball Av.
41	Hellman Av. & Pine Av.
42	Archibald Av. & Limonite Av.
43	Archibald Av. & Schleisman Av.

Table 4

Cumulative Development Land Use Summary

#	Project/Location	Land Use[1]	Quantity	Units[2]
City of Chino				
C1	Bickmore Street Residential (TM 18858) (30% complete)	SFDR	185	DU
C2	TM17574 (80% complete)	Condo/Townhouse	108	DU
C3	Falloncrest at the Preserve	SFDR	210	DU
		Condo/Townhouse	786	DU
		Apartments	412	DU
		Shopping Center	77.597	TSF
		General Office	77.597	TSF
C4	Tract 19980 (Homecoming Phase 4)	Apartments	454	DU
	TTM No. 20166 & 20167	SFDR	148	DU
	Brio & TTM No. 21065 & 20168 (Orchards)	SFDR	239	DU
C5	Farmer Boys	Fast-food w/ Drive-Thru	3.218	TSF
		Shopping Center	2.300	TSF
C6	Euclid & Bickmore Warehouse	Warehousing	205.820	TSF
		General Light Industrial	51.030	TSF
		Business Park	110.620	TSF
C7	Kimball Business Park	Light Industrial	140.500	TSF
		Warehousing	564.000	TSF
		High-Cube Warehouse	352.000	TSF
		Business Park	146.550	TSF
C8	Chaffey College Expansion	Junior/Community College	93.50	AC
	College Park Commercial	Shopping Center	7.50	AC
C9	Chino Parcel Delivery	Parcel Delivery Facility	765.274	TSF
C10	Altitude Business Centre	Warehousing	715.000	TSF
		Light Industrial	255.000	TSF
		Business Park	233.000	TSF
		Self-Storage	110.000	TSF
C11	Majestic Gateway	Specialty Retail	25.000	TSF
		Pharmacy/Drugstore with Drive-Thru	13.000	TSF
		Fast-Food with Drive-Thru	8.600	TSF
C12	Bouma Residential	SFDR	106	DU
		Condo/Townhouse	94	DU
C13	Fairfield Inn & Suites (PL 17-0060 & PL 17-0061)	Hotel	111	RM
C14	Watson Industrial Park (40% complete)	High-Cube Warehouse	3,889.900	TSF
C15	Chino Business Park	General Light Industrial	165.500	TSF
		Business Park	21.500	TSF
C16	Flores Site	Shopping Center	4.000	TSF
		Gas Station w/ convenience store	16	VFP
		Express Car Wash	5.000	TSF
C17	Brewart Residential (Stonebrook - TM 18923)	SFDR	127	DU
C18	Archibald's (PL 17-0037)	Fast-Food with Drive-Thru	3.147	TSF
C19	TM 18972 (80% complete)	SFDR	147	DU
C20	Rancho Miramonte	SFDR	691	DU
		Condo/Townhouse	132	DU
		Neighborhood Retail	21.780	TSF
		Church	400	SEAT

Table 4

Cumulative Development Land Use Summary

#	Project/Location	Land Use[1]	Quantity	Units[2]
C21	Pines Community	SFDR	552	DU
		Public Park	3.0	AC
		Sports Park	41.8	AC
		Self-Storage & RV Storage	120.000	TSF
C22	Church	Church	47.979	TSF
		Daycare	190	STU
C23	Appesetche Residential	SFDR	60	DU
		Condo/Townhouse	160	DU
C24	Tract 19951, 19952, 19953, 19935 & 18479	SFDR	151	DU
		Condo/Townhouse	150	DU
C25	Ag. Buffer, Bungalow, Lic. Product, Liberty Deluxe, Lyon 2 & 3	SFDR	474	DU
City of Eastvale				
E1	The Merge	Warehousing	336.501	TSF
		Shopping Center	4.750	TSF
		Supermarket	30.000	TSF
		Gas Station w/ convenience store	16	VFP
		Pharmacy/Drugstore with Drive-Thru	14.600	TSF
		Fast-Food with Drive-Thru	6.000	TSF
		Automated Car Wash	4.000	TSF
		Fast-Food Without Drive-Thru	7.750	TSF
		Coffee/Donut Shop With Drive-Thru	2.500	TSF
E2	TR29997	SFDR	122	DU
E3	13-0632 - Sumner Residential (Stratham Homes)	SFDR	129	DU
E4	TR35751	Condo/Townhouse	243	DU
E5	PP23219 (PM35865) (50% complete)	General Light Industrial	738.430	TSF
E6	Eastvale Shopping Center	Free-Standing Discount Superstore	192.000	TSF
		Specialty Retail	9.200	TSF
		Fast-Food Without Drive-Thru	7.200	TSF
		Coffee/Donut Shop w/ Drive Thru	2.000	TSF
		Fast-Food with Drive-Thru	3.500	TSF
		Gas Station w/ convenience store and car wash	16	VFP
E7	Van Leeuwen	SFDR	224	DU
E8	SP00358 - The Ranch at Eastvale	Shopping Center	267.200	TSF
		General Light Industrial	801.500	TSF
		Business Park	1,121.100	TSF
E9	SC Limonite, LLC	SFDR	330	TSF
City of Ontario				
O1	Parkside	SFDR	437	DU
		Multi-Family Attached (Apartments)	1,510	DU
		Shopping Center	115.000	TSF
O2	Subarea 29 & Amendment (40% complete)	SFDR	2,149	DU
		Shopping Center	87.000	TSF
O3	Colony Commerce West	High-Cube Warehouse	2213.360	TSF
		Manufacturing	737.786	TSF
O4	West Ontario Commerce Center SP	High-Cube Warehouse	1976.535	TSF
		Manufacturing	658.845	TSF
		Business Park	548.856	TSF

Table 4

Cumulative Development Land Use Summary

#	Project/Location	Land Use[1]	Quantity	Units[2]
O5	Colony Commerce East	High-Cube Warehouse	998.680	TSF
		Manufacturing	233.129	TSF
		Warehousing	699.387	TSF
O6	Merrill Commerce Center	High-Cube Fulfillment Warehouse	7014.000	TSF
		Business Park	1441.000	TSF
O7	Parente Home Ranch SP	SFDR	270	DU
		Condo/Townhouse	1,872	DU
		General Office	462.281	TSF
		Shopping Center	194.278	TSF
City of Chino Hills				
CH1	Vila Borba Specific Plan (TR 16414)	SFDR	172	DU
CH2	Country Club Villas	Condo/Townhouse	46	DU
CH3	Crossings at Chino Hills	Apartments	346	DU
CH4	The Goddard School	Daycare	10.587	TSF
CH5	Indus Light Industrial	General Light Industrial	100.330	TSF
CH6	The Santa Barbara	Condo/Townhouse - Low Rise	138	DU
		Condo/Townhouse - Mid Rise	186	DU
		Shopping Center	15.700	TSF
CH7	Heritage Professional Center	Hospital	55.000	TSF
		Medical Office Building	86.952	TSF
		Hotel	120	RM
		Shopping Center	38.848	TSF
		Restaurant	7.200	TSF

[1] SFDR = Single Family Detached Residential

[2] TSF = Thousand Square Feet; DU = Dwelling Unit; VFP = Vehicle Fueling Position ; AC = Acres

[3] Source: Altfillisch Residential Project TIA Memorandum, LSA Associates, Inc., July 25, 2011.

APPENDIX 1.2:

SITE ADJACENT QUEUES

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Intersection: 10: Mountain Av. & Bickmore Av.

Movement	WB	WB	NB	SB
Directions Served	L	R	TR	L
Maximum Queue (ft)	77	76	4	30
Average Queue (ft)	40	41	0	8
95th Queue (ft)	67	64	3	29
Link Distance (ft)		134	411	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100			60
Storage Blk Time (%)	0	0		
Queuing Penalty (veh)	0	0		

Intersection: 11: Mountain Av. & Driveway 1

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	35	30
Average Queue (ft)	8	3
95th Queue (ft)	29	18
Link Distance (ft)	96	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 12: Mountain Av. & Driveway 2

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	50	31
Average Queue (ft)	22	4
95th Queue (ft)	49	21
Link Distance (ft)	413	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 13: Mountain Av. & Driveway 3

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	35	23
Average Queue (ft)	9	3
95th Queue (ft)	32	16
Link Distance (ft)	301	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 14: El Prado Rd. & Mountain Av.

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	116	214	94
Average Queue (ft)	45	92	28
95th Queue (ft)	87	172	69
Link Distance (ft)	553	1434	2853
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 16: Driveway 4 & Bickmore Av.

Movement	WB	NB
Directions Served	L	LR
Maximum Queue (ft)	31	30
Average Queue (ft)	3	11
95th Queue (ft)	19	34
Link Distance (ft)		104
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	100	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 17: Drivewy 5 & Bickmore Av.

Movement	WB	NB
Directions Served	L	LR
Maximum Queue (ft)	6	30
Average Queue (ft)	0	1
95th Queue (ft)	4	10
Link Distance (ft)		155
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	100	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 18: Driveway 6 & Bickmore Av.

Movement	WB	NB
Directions Served	L	LR
Maximum Queue (ft)	17	23
Average Queue (ft)	1	2
95th Queue (ft)	7	12
Link Distance (ft)		137
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	100	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty: 0

Intersection: 10: Mountain Av. & Bickmore Av.

Movement	WB	WB	SB
Directions Served	L	R	L
Maximum Queue (ft)	59	54	35
Average Queue (ft)	32	32	11
95th Queue (ft)	55	45	34
Link Distance (ft)		134	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	100		60
Storage Blk Time (%)			0
Queuing Penalty (veh)			0

Intersection: 11: Mountain Av. & Driveway 1

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	46	24
Average Queue (ft)	26	1
95th Queue (ft)	46	11
Link Distance (ft)	96	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 12: Mountain Av. & Driveway 2

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	72	28
Average Queue (ft)	40	2
95th Queue (ft)	62	15
Link Distance (ft)	413	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 13: Mountain Av. & Driveway 3

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	52	22
Average Queue (ft)	24	1
95th Queue (ft)	47	10
Link Distance (ft)	301	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 14: El Prado Rd. & Mountain Av.

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	117	100	249
Average Queue (ft)	58	46	111
95th Queue (ft)	102	85	197
Link Distance (ft)	553	1434	2853
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 16: Driveway 4 & Bickmore Av.

Movement	WB	NB
Directions Served	L	LR
Maximum Queue (ft)	30	60
Average Queue (ft)	3	26
95th Queue (ft)	19	49
Link Distance (ft)		104
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	100	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 17: Driveway 5 & Bickmore Av.

Movement	WB	NB
Directions Served	L	LR
Maximum Queue (ft)	29	31
Average Queue (ft)	1	8
95th Queue (ft)	11	30
Link Distance (ft)		155
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	100	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 18: Driveway 6 & Bickmore Av.

Movement	WB	NB
Directions Served	L	LR
Maximum Queue (ft)	5	30
Average Queue (ft)	0	8
95th Queue (ft)	4	30
Link Distance (ft)		138
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	100	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty: 0

APPENDIX 3.1:

EXISTING TRAFFIC COUNTS – JANUARY 2019

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INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
Tue, Jan 29, 19	NORTH & SOUTH:	Soquel Canyon	LOCATION #:	1
	EAST & WEST:	SR-71 SB Ramps	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

Add U-Turns to Left Turns

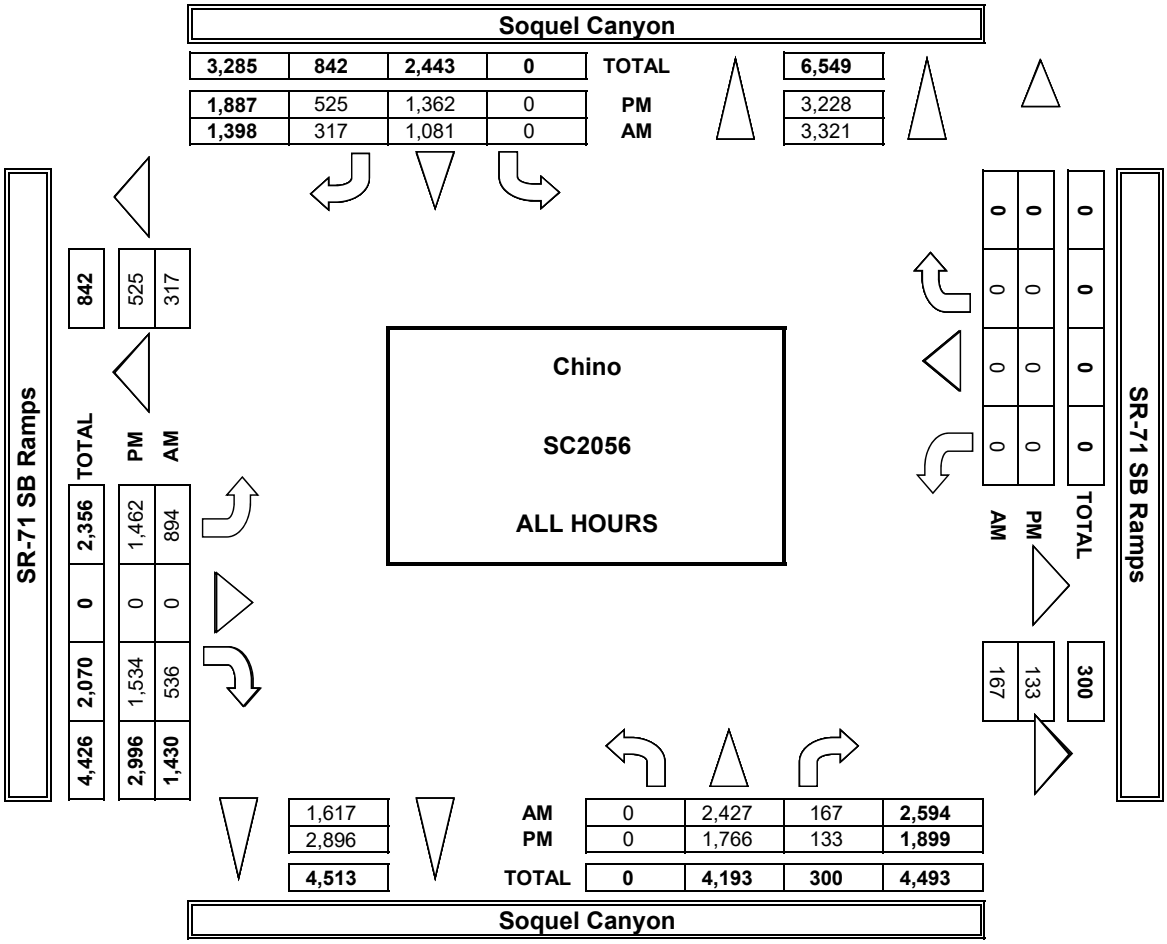
		NORTHBOUND (Soquel Canyon)			SOUTHBOUND (Soquel Canyon)			EASTBOUND (SR-71 SB Ramps)			WESTBOUND (SR-71 SB Ramps)			
	LANES:	NL X	NT 3	NR 1	SL X	ST 3	SR 2	EL 1.5	ET X	ER 0.5	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	330	25	0	253	34	81	0	112	0	0	0	835
	7:15 AM	0	433	24	0	170	46	75	0	100	0	0	0	848
	7:30 AM	0	347	26	0	104	34	117	0	41	0	0	0	669
	7:45 AM	0	268	17	0	118	46	143	0	53	0	0	0	645
	8:00 AM	0	229	13	0	121	36	130	0	47	0	0	0	576
	8:15 AM	0	293	18	0	120	46	129	0	71	0	0	0	677
	8:30 AM	0	257	18	0	104	31	108	0	39	0	0	0	557
	8:45 AM	0	270	26	0	91	44	111	0	73	0	0	0	615
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	2,427	167	0	1,081	317	894	0	536	0	0	0	5,422
	APPROACH %	0%	94%	6%	0%	77%	23%	63%	0%	37%	0%	0%	0%	
	APP/DEPART	2,594	/	3,321	1,398	/	1,617	1,430	/	167	0	/	317	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	1,378	92	0	645	160	416	0	306	0	0	0	2,997
	APPROACH %	0%	94%	6%	0%	80%	20%	58%	0%	42%	0%	0%	0%	
	PEAK HR FACTOR		0.804			0.701			0.921			0.000		0.884
	APP/DEPART	1,470	/	1,794	805	/	951	722	/	92	0	/	160	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	209	23	0	143	87	153	0	162	0	0	0	777
	4:15 PM	0	237	16	0	152	59	178	0	170	0	0	0	812
	4:30 PM	0	181	20	0	147	80	183	0	186	0	0	0	797
	4:45 PM	0	200	12	0	188	62	184	0	166	0	0	0	812
	5:00 PM	0	270	16	0	204	61	187	0	193	0	0	0	931
	5:15 PM	0	243	21	0	189	72	201	0	239	0	0	0	965
	5:30 PM	0	224	12	0	174	60	202	0	221	0	0	0	893
	5:45 PM	0	202	13	0	165	44	174	0	197	0	0	0	795
	VOLUMES	0	1,766	133	0	1,362	525	1,462	0	1,534	0	0	0	6,782
	APPROACH %	0%	93%	7%	0%	72%	28%	49%	0%	51%	0%	0%	0%	
	APP/DEPART	1,899	/	3,228	1,887	/	2,896	2,996	/	133	0	/	525	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	0	937	61	0	755	255	774	0	819	0	0	0	3,601
	APPROACH %	0%	94%	6%	0%	75%	25%	49%	0%	51%	0%	0%	0%	
	PEAK HR FACTOR		0.872			0.953			0.905			0.000		0.933
	APP/DEPART	998	/	1,711	1,010	/	1,574	1,593	/	61	0	/	255	0

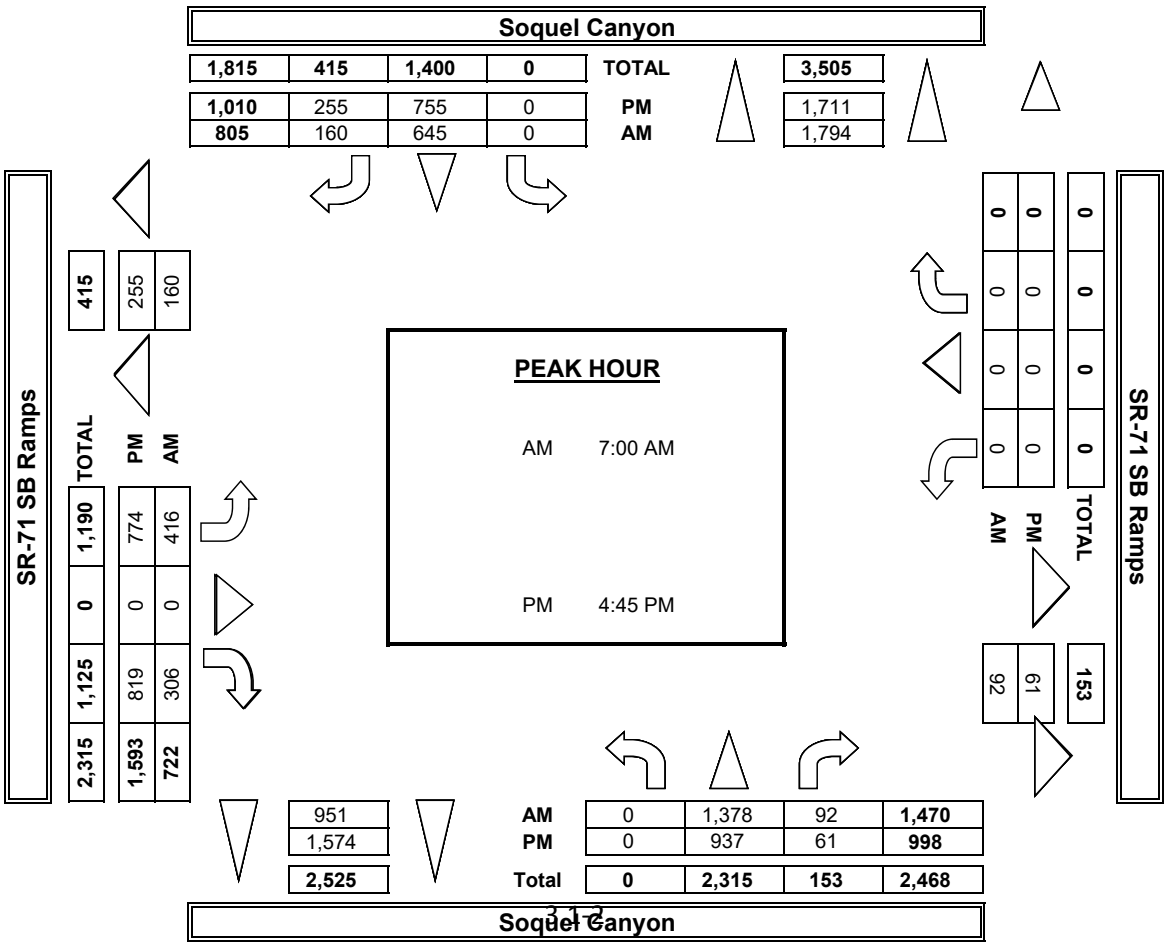
U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/29/19	NORTH & SOUTH:	Soquel Canyon	LOCATION #:	1
TUESDAY	EAST & WEST:	SR-71 SB Ramps	CONTROL:	SIGNAL

CLASS 1:	NOTES:
PASSENGER VEHICLES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND (Soquel Canyon)			SOUTHBOUND (Soquel Canyon)			EASTBOUND (SR-71 SB Ramps)			WESTBOUND (SR-71 SB Ramps)			
LANES:	NL X	NT 3	NR 1	SL X	ST 3	SR 2	EL 1.5	ET X	ER 0.5	WL X	WT X	WR X	TOTAL
7:00 AM	0	323	24	0	249	26	70	0	108	0	0	0	800
7:15 AM	0	428	24	0	162	37	69	0	92	0	0	0	812
7:30 AM	0	341	23	0	98	25	110	0	39	0	0	0	636
7:45 AM	0	256	16	0	105	37	134	0	49	0	0	0	597
8:00 AM	0	216	13	0	114	29	122	0	42	0	0	0	536
8:15 AM	0	285	17	0	111	38	119	0	67	0	0	0	637
8:30 AM	0	251	18	0	89	24	91	0	37	0	0	0	510
8:45 AM	0	264	25	0	73	37	95	0	65	0	0	0	559
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	2,364	160	0	1,001	253	810	0	499	0	0	0	5,087
APPROACH %	0%	94%	6%	0%	80%	20%	62%	0%	38%	0%	0%	0%	
APP/DEPART	2,524	/	3,174	1,254	/	1,500	1,309	/	160	0	/	253	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	1,348	87	0	614	125	383	0	288	0	0	0	2,845
APPROACH %	0%	94%	6%	0%	83%	17%	57%	0%	43%	0%	0%	0%	
PEAK HR FACTOR		0.794			0.672			0.917			0.000		0.876
APP/DEPART	1,435	/	1,731	739	/	902	671	/	87	0	/	125	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	199	22	0	137	80	138	0	160	0	0	0	736
4:15 PM	0	229	15	0	146	58	162	0	167	0	0	0	777
4:30 PM	0	173	17	0	146	76	168	0	184	0	0	0	764
4:45 PM	0	196	12	0	178	60	169	0	164	0	0	0	779
5:00 PM	0	260	15	0	195	57	171	0	187	0	0	0	885
5:15 PM	0	237	20	0	186	69	188	0	237	0	0	0	937
5:30 PM	0	210	11	0	170	60	194	0	220	0	0	0	865
5:45 PM	0	197	13	0	164	40	163	0	195	0	0	0	772
VOLUMES	0	1,701	125	0	1,322	500	1,353	0	1,514	0	0	0	6,515
APPROACH %	0%	93%	7%	0%	73%	27%	47%	0%	53%	0%	0%	0%	
APP/DEPART	1,826	/	3,054	1,822	/	2,836	2,867	/	125	0	/	500	0
BEGIN PEAK HR		4:45 PM											
VOLUMES	0	903	58	0	729	246	722	0	808	0	0	0	3,466
APPROACH %	0%	94%	6%	0%	75%	25%	47%	0%	53%	0%	0%	0%	
PEAK HR FACTOR		0.874			0.956			0.900			0.000		0.925
APP/DEPART	961	/	1,625	975	/	1,537	1,530	/	58	0	/	246	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR 0	WRR X
0	0	34	0
0	0	52	0
0	0	24	0
0	0	27	0
0	0	17	0
0	0	25	0
0	0	20	0
0	0	27	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	226	0
0	0	137	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	373	0
0	0	177	0

Soquel Canyon

NORTH SIDE

SR-71 SB Ramps WEST SIDE EAST SIDE **SR-71 SB Ramps**

SOUTH SIDE

Soquel Canyon

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/29/19	NORTH & SOUTH:	Soquel Canyon	LOCATION #:	1
TUESDAY	EAST & WEST:	SR-71 SB Ramps	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS	NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Soquel Canyon			SOUTHBOUND Soquel Canyon			EASTBOUND SR-71 SB Ramps			WESTBOUND SR-71 SB Ramps			
	LANES:	NL X	NT 3	NR 1	SL X	ST 3	SR 2	EL 1.5	ET X	ER 0.5	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	6	0	0	2	4	8	0	2	0	0	0	22
	7:15 AM	0	3	0	0	5	9	2	0	7	0	0	0	26
	7:30 AM	0	3	3	0	2	8	1	0	1	0	0	0	18
	7:45 AM	0	7	1	0	8	7	6	0	4	0	0	0	33
	8:00 AM	0	7	0	0	5	5	2	0	5	0	0	0	24
	8:15 AM	0	6	1	0	6	6	5	0	4	0	0	0	28
	8:30 AM	0	2	0	0	11	7	9	0	2	0	0	0	31
	8:45 AM	0	4	1	0	13	5	8	0	6	0	0	0	37
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	38	6	0	52	51	41	0	31	0	0	0	219
	APPROACH %	0%	86%	14%	0%	50%	50%	57%	0%	43%	0%	0%	0%	
	APP/DEPART	44	/	79	103	/	83	72	/	6	0	/	51	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	19	2	0	35	23	24	0	17	0	0	0	120
	APPROACH %	0%	90%	10%	0%	60%	40%	59%	0%	41%	0%	0%	0%	
	PEAK HR FACTOR		0.750			0.806			0.732			0.000		0.811
	APP/DEPART	21	/	43	58	/	52	41	/	2	0	/	23	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	5	1	0	5	4	7	0	2	0	0	0	24
	4:15 PM	0	8	1	0	5	1	8	0	3	0	0	0	26
	4:30 PM	0	4	2	0	0	1	9	0	2	0	0	0	18
	4:45 PM	0	2	0	0	6	0	12	0	2	0	0	0	22
	5:00 PM	0	7	1	0	6	4	11	0	6	0	0	0	35
	5:15 PM	0	4	1	0	1	2	11	0	0	0	0	0	19
	5:30 PM	0	11	1	0	2	0	5	0	1	0	0	0	20
	5:45 PM	0	5	0	0	1	3	6	0	2	0	0	0	17
	VOLUMES	0	46	7	0	26	15	69	0	18	0	0	0	181
	APPROACH %	0%	87%	13%	0%	63%	37%	79%	0%	21%	0%	0%	0%	
	APP/DEPART	53	/	115	41	/	44	87	/	7	0	/	15	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	0	21	4	0	17	6	40	0	13	0	0	0	101
	APPROACH %	0%	84%	16%	0%	74%	26%	75%	0%	25%	0%	0%	0%	
	PEAK HR FACTOR		0.694			0.575			0.779			0.000		0.721
	APP/DEPART	25	/	61	23	/	30	53	/	4	0	/	6	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/29/19	NORTH & SOUTH:	Soquel Canyon	LOCATION #:	1
TUESDAY	EAST & WEST:	SR-71 SB Ramps	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Soquel Canyon			SOUTHBOUND Soquel Canyon			EASTBOUND SR-71 SB Ramps			WESTBOUND SR-71 SB Ramps			
	LANES:	NL X	NT 3	NR 1	SL X	ST 3	SR 2	EL 1.5	ET X	ER 0.5	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	1	0	0	1	0	0	0	2
	7:15 AM	0	0	0	0	2	0	0	0	1	0	0	0	3
	7:30 AM	0	2	0	0	1	0	0	0	0	0	0	0	3
	7:45 AM	0	1	0	0	2	1	1	0	0	0	0	0	5
	8:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	2
	8:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	1
	8:30 AM	0	0	0	0	0	0	2	0	0	0	0	0	2
	8:45 AM	0	0	0	0	4	0	0	0	0	0	0	0	4
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	5	0	0	9	3	3	0	2	0	0	0	22
	APPROACH %	0%	100%	0%	0%	75%	25%	60%	0%	40%	0%	0%	0%	
	APP/DEPART	5	/	8	12	/	11	5	/	0	0	/	3	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	5	0	0	5	1	1	0	1	0	0	0	13
	APPROACH %	0%	100%	0%	0%	83%	17%	50%	0%	50%	0%	0%	0%	
	PEAK HR FACTOR		0.625			0.500			0.500			0.000		0.650
	APP/DEPART	5	/	6	6	/	6	2	/	0	0	/	1	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	3	0	0	0	1	0	0	0	0	0	0	4
	4:45 PM	0	1	0	0	2	1	1	0	0	0	0	0	5
	5:00 PM	0	2	0	0	3	0	1	0	0	0	0	0	6
	5:15 PM	0	1	0	0	2	0	0	0	0	0	0	0	3
	5:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	10	0	0	8	2	2	0	0	0	0	0	22
	APPROACH %	0%	100%	0%	0%	80%	20%	100%	0%	0%	0%	0%	0%	
	APP/DEPART	10	/	12	10	/	8	2	/	0	0	/	2	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	0	7	0	0	7	2	2	0	0	0	0	0	18
	APPROACH %	0%	100%	0%	0%	78%	22%	100%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.583			0.750			0.500			0.000		0.750
	APP/DEPART	7	/	9	9	/	7	2	/	0	0	/	2	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/29/19	NORTH & SOUTH:	Soquel Canyon	LOCATION #:	1
TUESDAY	EAST & WEST:	SR-71 SB Ramps	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

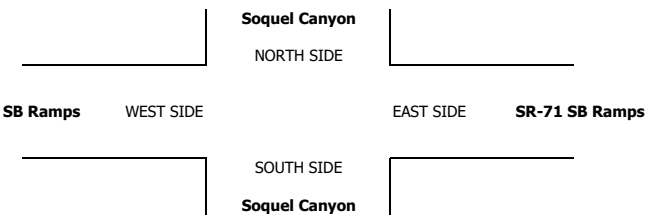
		NORTHBOUND Soquel Canyon			SOUTHBOUND Soquel Canyon			EASTBOUND SR-71 SB Ramps			WESTBOUND SR-71 SB Ramps			
	LANES:	NL X	NT 3	NR 1	SL X	ST 3	SR 2	EL 1.5	ET X	ER 0.5	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	3	3	0	1	0	0	0	7
	7:15 AM	0	0	0	0	0	0	3	0	0	0	0	0	3
	7:30 AM	0	0	0	0	1	1	6	0	1	0	0	0	9
	7:45 AM	0	0	0	0	2	1	2	0	0	0	0	0	5
	8:00 AM	0	1	0	0	1	1	6	0	0	0	0	0	9
	8:15 AM	0	1	0	0	1	1	5	0	0	0	0	0	8
	8:30 AM	0	1	0	0	4	0	6	0	0	0	0	0	11
	8:45 AM	0	0	0	0	1	2	8	0	0	0	0	0	11
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	3	0	0	10	9	39	0	2	0	0	0	63
	APPROACH %	0%	100%	0%	0%	53%	47%	95%	0%	5%	0%	0%	0%	
	APP/DEPART	3	/	42	19	/	12	41	/	0	0	/	9	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	3	0	0	7	4	25	0	0	0	0	0	39
	APPROACH %	0%	100%	0%	0%	64%	36%	100%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.750			0.688			0.781			0.000		0.886
	APP/DEPART	3	/	28	11	/	7	25	/	0	0	/	4	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	1	3	8	0	0	0	0	0	12
	4:15 PM	0	0	0	0	0	0	8	0	0	0	0	0	8
	4:30 PM	0	0	1	0	0	2	6	0	0	0	0	0	9
	4:45 PM	0	1	0	0	1	1	2	0	0	0	0	0	5
	5:00 PM	0	1	0	0	0	0	3	0	0	0	0	0	4
	5:15 PM	0	1	0	0	0	1	2	0	2	0	0	0	6
	5:30 PM	0	1	0	0	0	0	3	0	0	0	0	0	4
	5:45 PM	0	0	0	0	0	1	5	0	0	0	0	0	6
	VOLUMES	0	4	1	0	2	8	37	0	2	0	0	0	54
	APPROACH %	0%	80%	20%	0%	20%	80%	95%	0%	5%	0%	0%	0%	
	APP/DEPART	5	/	41	10	/	4	39	/	1	0	/	8	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	1	1	0	2	6	24	0	0	0	0	0	34
	APPROACH %	0%	50%	50%	0%	25%	75%	100%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.500			0.500			0.750			0.000		0.708
	APP/DEPART	2	/	25	8	/	2	24	/	1	0	/	6	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR 0	WRR X
0	0	0	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/29/19	NORTH & SOUTH:	Soquel Canyon	LOCATION #:	1
TUESDAY	EAST & WEST:	SR-71 SB Ramps	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND Soquel Canyon			SOUTHBOUND Soquel Canyon			EASTBOUND SR-71 SB Ramps			WESTBOUND SR-71 SB Ramps			
	LANES:	NL X	NT 3	NR 1	SL X	ST 3	SR 2	EL 1.5	ET X	ER 0.5	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	1	0	0	0	0	0	0	0	0	0	0	1
	APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	1	/	1	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	1	0	0	0	0	0	0	0	0	0	0	1
	APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.250			0.000			0.000			0.000		0.250
	APP/DEPART	1	/	1	0	/	0	0	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		3:00 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS					
NB	SB	EB	WB	TTL	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/29/19	NORTH & SOUTH:	Soquel Canyon	LOCATION #:	1
TUESDAY	EAST & WEST:	SR-71 SB Ramps	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND Soquel Canyon			SOUTHBOUND Soquel Canyon			EASTBOUND SR-71 SB Ramps			WESTBOUND SR-71 SB Ramps			
	LANES:	NL X	NT 3	NR 1	SL X	ST 3	SR 2	EL 1.5	ET X	ER 0.5	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	0	1	0	2	0	0	0	0	0	0	0	3
	7:15 AM	0	2	0	0	1	0	1	0	0	0	0	0	4
	7:30 AM	0	1	0	0	2	0	0	0	0	0	0	0	3
	7:45 AM	0	4	0	0	1	0	0	0	0	0	0	0	5
	8:00 AM	0	3	0	0	1	1	0	0	0	0	0	0	5
	8:15 AM	0	1	0	0	2	0	0	0	0	0	0	0	3
	8:30 AM	0	3	0	0	0	0	0	0	0	0	0	0	3
	8:45 AM	0	2	0	0	0	0	0	0	2	0	0	0	4
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	16	1	0	9	1	1	0	2	0	0	0	30
	APPROACH %	0%	94%	6%	0%	90%	10%	33%	0%	67%	0%	0%	0%	
	APP/DEPART	17	/	17	10	/	11	3	/	1	0	/	1	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	10	0	0	5	1	1	0	0	0	0	0	17
	APPROACH %	0%	100%	0%	0%	83%	17%	100%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.625			0.750			0.250			0.000		0.850
	APP/DEPART	10	/	11	6	/	5	1	/	0	0	/	1	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	3	0	0	0	0	0	0	0	0	0	0	3
	4:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
	4:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	5	0	0	4	0	1	0	0	0	0	0	10
	APPROACH %	0%	100%	0%	0%	100%	0%	100%	0%	0%	0%	0%	0%	
	APP/DEPART	5	/	6	4	/	4	1	/	0	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	4	0	0	3	0	0	0	0	0	0	0	7
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.333			0.750			0.000			0.000		0.583
	APP/DEPART	4	/	4	3	/	3	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR 0	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	2	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	2	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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0	0	0	0
0	0	0	0
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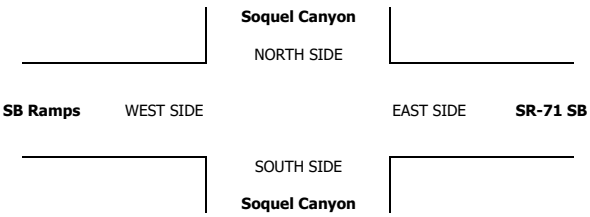
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
Wed, Jan 23, 19	NORTH & SOUTH:	SR-71 SB Ramps	LOCATION #:	2
	EAST & WEST:	Pine	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

Add U-Turns to Left Turns

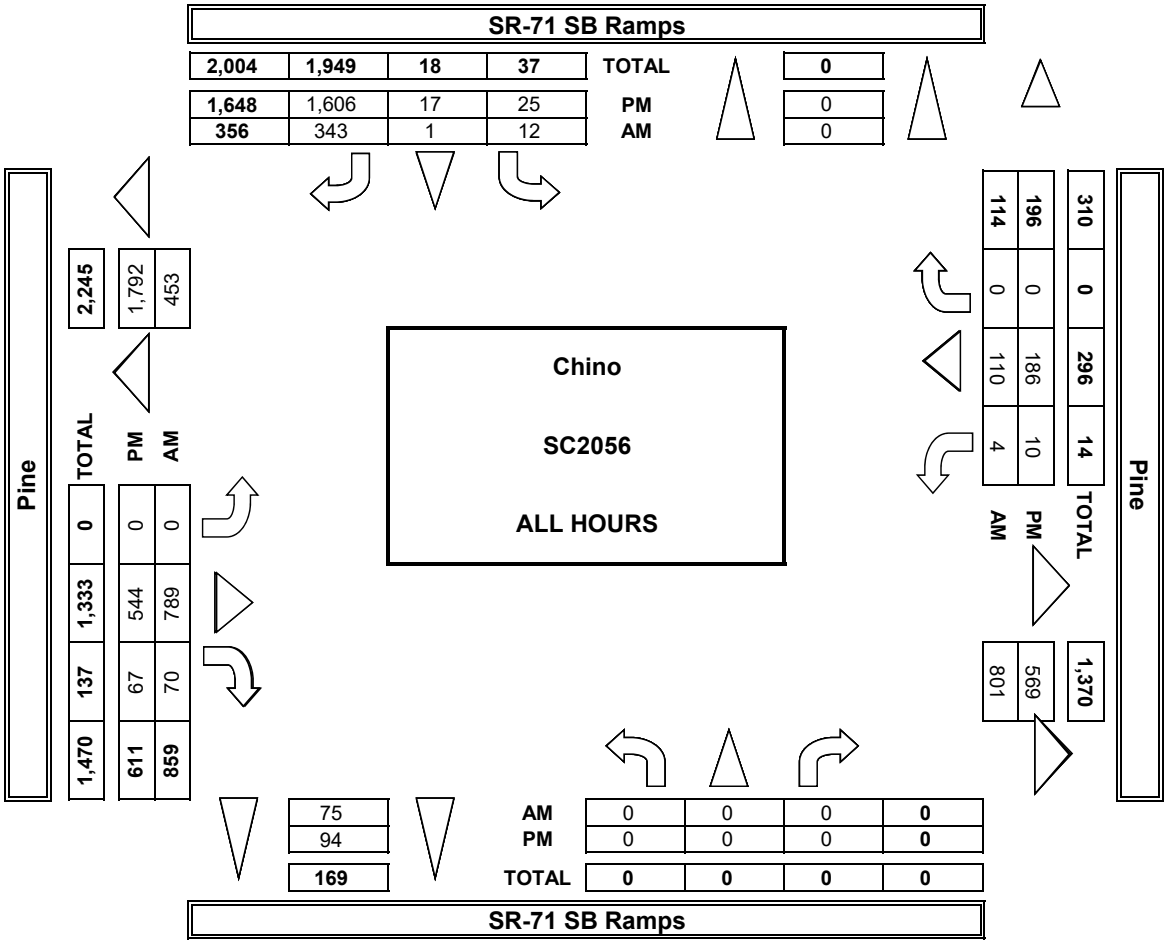
		NORTHBOUND (SR-71 SB Ramps)			SOUTHBOUND (SR-71 SB Ramps)			EASTBOUND (Pine)			WESTBOUND (Pine)			
	LANES:	NL X	NT X	NR X	SL 0.5	ST 0.5	SR 1	EL X	ET 1	ER 1	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	0	1	0	30	0	120	6	2	19	0	178
	7:15 AM	0	0	0	1	0	30	0	127	10	1	14	0	183
	7:30 AM	0	0	0	2	1	36	0	88	2	0	4	0	133
	7:45 AM	0	0	0	2	0	76	0	94	13	0	19	0	204
	8:00 AM	0	0	0	2	0	42	0	92	15	0	8	0	159
	8:15 AM	0	0	0	1	0	38	0	82	6	1	12	0	140
	8:30 AM	0	0	0	1	0	47	0	105	9	0	19	0	181
	8:45 AM	0	0	0	2	0	44	0	81	9	0	15	0	151
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	12	1	343	0	789	70	4	110	0	1,329
	APPROACH %	0%	0%	0%	3%	0%	96%	0%	92%	8%	4%	96%	0%	
	APP/DEPART	0	/	0	356	/	75	859	/	801	114	/	453	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	6	1	172	0	429	31	3	56	0	698
	APPROACH %	0%	0%	0%	3%	1%	96%	0%	93%	7%	5%	95%	0%	
	PEAK HR FACTOR		0.000			0.574			0.839			0.702		0.855
	APP/DEPART	0	/	0	179	/	35	460	/	435	59	/	228	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	2	0	89	0	57	16	0	19	0	183
	4:15 PM	0	0	0	1	0	119	0	64	8	1	25	0	218
	4:30 PM	0	0	0	7	7	190	0	56	1	3	16	0	280
	4:45 PM	0	0	0	4	0	240	0	71	10	0	15	0	340
	5:00 PM	0	0	0	3	0	239	0	89	15	3	31	0	380
	5:15 PM	0	0	0	4	4	244	0	80	5	1	28	0	366
	5:30 PM	0	0	0	2	3	256	0	66	9	1	17	0	354
	5:45 PM	0	0	0	2	3	229	0	61	3	1	35	0	334
	VOLUMES	0	0	0	25	17	1,606	0	544	67	10	186	0	2,455
	APPROACH %	0%	0%	0%	2%	1%	97%	0%	89%	11%	5%	95%	0%	
	APP/DEPART	0	/	0	1,648	/	94	611	/	569	196	/	1,792	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	0	0	0	13	7	979	0	306	39	5	91	0	1,440
	APPROACH %	0%	0%	0%	1%	1%	98%	0%	89%	11%	5%	95%	0%	
	PEAK HR FACTOR		0.000			0.957			0.829			0.706		0.947
	APP/DEPART	0	/	0	999	/	51	345	/	319	96	/	1,070	0

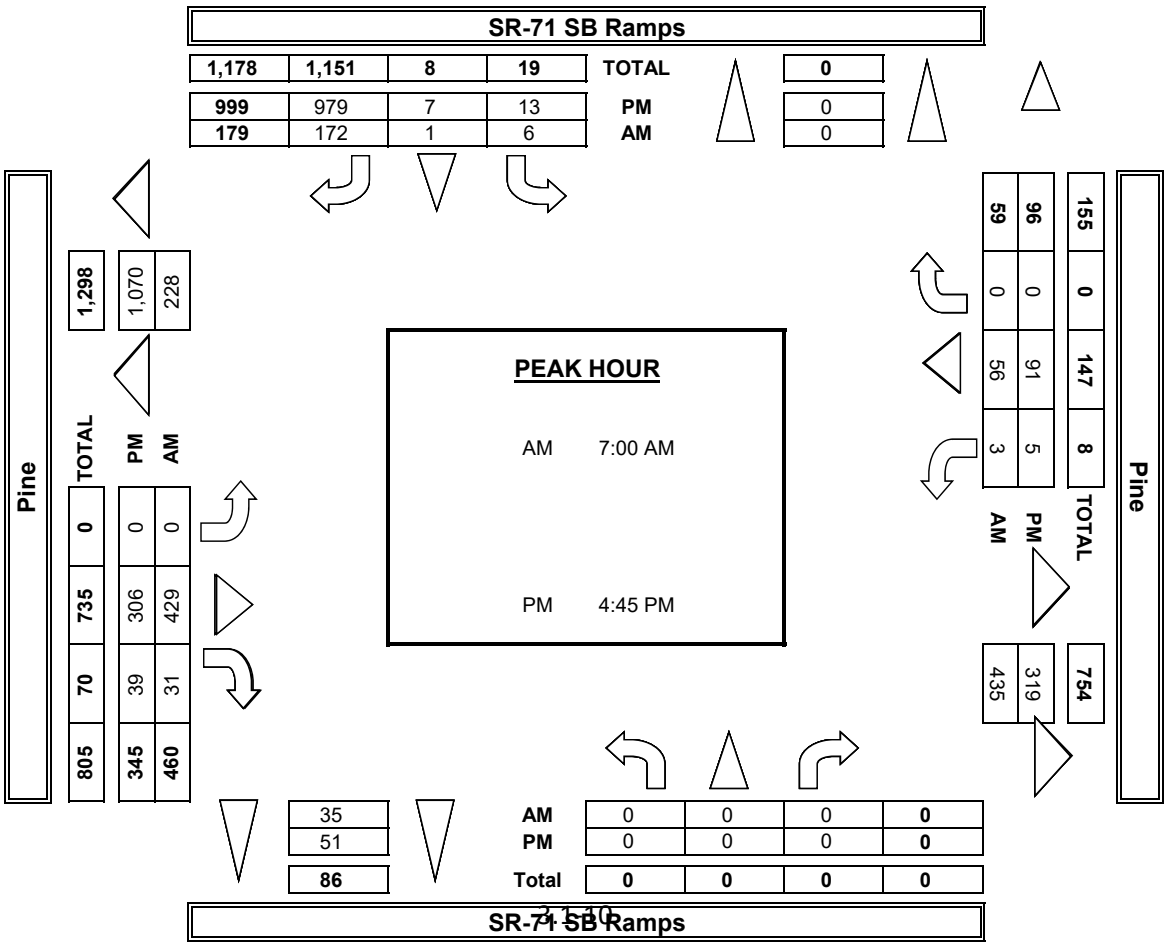
U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/23/19	NORTH & SOUTH:	SR-71 SB Ramps	LOCATION #:	2
WEDNESDAY	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND (SR-71 SB Ramps)			SOUTHBOUND (SR-71 SB Ramps)			EASTBOUND (Pine)			WESTBOUND (Pine)			
LANES:	NL X	NT X	NR X	SL 0.5	ST 0.5	SR 1	EL X	ET 1	ER 1	WL 1	WT 2	WR X	TOTAL
7:00 AM	0	0	0	1	0	30	0	117	6	2	19	0	175
7:15 AM	0	0	0	1	0	26	0	125	10	1	13	0	176
7:30 AM	0	0	0	2	1	33	0	87	2	0	3	0	128
7:45 AM	0	0	0	2	0	73	0	90	11	0	19	0	195
8:00 AM	0	0	0	2	0	40	0	89	14	0	8	0	153
8:15 AM	0	0	0	0	0	36	0	82	6	1	10	0	135
8:30 AM	0	0	0	1	0	43	0	104	8	0	17	0	173
8:45 AM	0	0	0	2	0	42	0	76	9	0	13	0	142
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	11	1	323	0	770	66	4	102	0	1,277
APPROACH %	0%	0%	0%	3%	0%	96%	0%	92%	8%	4%	96%	0%	
APP/DEPART	0	/	0	335	/	71	836	/	781	106	/	425	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	0	0	6	1	162	0	419	29	3	54	0	674
APPROACH %	0%	0%	0%	4%	1%	96%	0%	94%	6%	5%	95%	0%	
PEAK HR FACTOR		0.000			0.563			0.830			0.679		0.864
APP/DEPART	0	/	0	169	/	33	448	/	425	57	/	216	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	2	0	86	0	52	15	0	18	0	173
4:15 PM	0	0	0	1	0	119	0	62	6	1	25	0	214
4:30 PM	0	0	0	5	7	184	0	53	1	3	15	0	268
4:45 PM	0	0	0	4	0	226	0	68	9	0	14	0	321
5:00 PM	0	0	0	3	0	229	0	88	14	2	28	0	364
5:15 PM	0	0	0	4	4	238	0	77	5	1	28	0	357
5:30 PM	0	0	0	2	3	249	0	64	8	1	17	0	344
5:45 PM	0	0	0	2	3	226	0	59	3	1	35	0	329
VOLUMES	0	0	0	23	17	1,557	0	523	61	9	180	0	2,370
APPROACH %	0%	0%	0%	1%	1%	97%	0%	90%	10%	5%	95%	0%	
APP/DEPART	0	/	0	1,597	/	87	584	/	546	189	/	1,737	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	0	0	0	11	10	942	0	288	30	5	108	0	1,394
APPROACH %	0%	0%	0%	1%	1%	98%	0%	91%	9%	4%	96%	0%	
PEAK HR FACTOR		0.000			0.948			0.779			0.785		0.957
APP/DEPART	0	/	0	963	/	45	318	/	299	113	/	1,050	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR 0	ERR 0	WRR X
0	17	1	0
0	14	2	0
0	13	0	0
0	32	2	0
0	13	2	0
0	14	1	0
0	17	0	0
0	10	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	130	9	0
0	76	5	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	20	4	0
0	26	3	0
0	41	0	0
0	49	5	0
0	67	11	0
0	61	3	0
0	59	4	0
0	59	0	0
0	382	30	0
0	246	18	0

SR-71 SB Ramps

NORTH SIDE

Pine WEST SIDE EAST SIDE **Pine**

SOUTH SIDE

SR-71 SB Ramps

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/23/19	NORTH & SOUTH:	SR-71 SB Ramps	LOCATION #:	2
WEDNESDAY	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

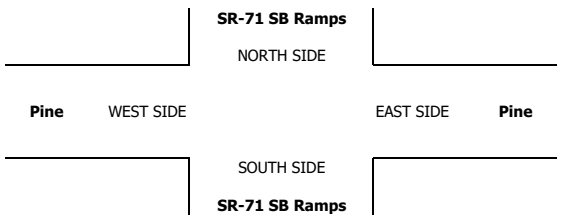
		NORTHBOUND SR-71 SB Ramps			SOUTHBOUND SR-71 SB Ramps			EASTBOUND Pine			WESTBOUND Pine			
	LANES:	NL X	NT X	NR X	SL 0.5	ST 0.5	SR 1	EL X	ET 1	ER 1	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
	7:15 AM	0	0	0	0	0	4	0	0	0	0	1	0	5
	7:30 AM	0	0	0	0	0	2	0	1	0	0	1	0	4
	7:45 AM	0	0	0	0	0	3	0	0	2	0	0	0	5
	8:00 AM	0	0	0	0	0	1	0	3	1	0	0	0	5
	8:15 AM	0	0	0	1	0	2	0	0	0	0	2	0	5
	8:30 AM	0	0	0	0	0	4	0	1	1	0	2	0	8
	8:45 AM	0	0	0	0	0	2	0	4	0	0	1	0	7
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	1	0	18	0	11	4	0	7	0	41
	APPROACH %	0%	0%	0%	5%	0%	95%	0%	73%	27%	0%	100%	0%	
	APP/DEPART	0	/	0	19	/	4	15	/	12	7	/	25	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	0	0	1	0	9	0	8	2	0	5	0	25
	APPROACH %	0%	0%	0%	10%	0%	90%	0%	80%	20%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.625			0.625			0.625		0.781
	APP/DEPART	0	/	0	10	/	2	10	/	9	5	/	14	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	3	0	5	1	0	1	0	10
	4:15 PM	0	0	0	0	0	0	0	2	2	0	0	0	4
	4:30 PM	0	0	0	1	0	4	0	3	0	0	1	0	9
	4:45 PM	0	0	0	0	0	12	0	3	1	0	1	0	17
	5:00 PM	0	0	0	0	0	9	0	1	1	1	3	0	15
	5:15 PM	0	0	0	0	0	6	0	3	0	0	0	0	9
	5:30 PM	0	0	0	0	0	7	0	2	1	0	0	0	10
	5:45 PM	0	0	0	0	0	3	0	2	0	0	0	0	5
	VOLUMES	0	0	0	1	0	44	0	21	6	1	6	0	79
	APPROACH %	0%	0%	0%	2%	0%	98%	0%	78%	22%	14%	86%	0%	
	APP/DEPART	0	/	0	45	/	7	27	/	22	7	/	50	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	0	0	0	0	0	34	0	9	3	1	4	0	51
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	75%	25%	20%	80%	0%	
	PEAK HR FACTOR		0.000			0.708			0.750			0.313		0.750
	APP/DEPART	0	/	0	34	/	4	12	/	9	5	/	38	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR 0	ERR 0	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	1	0	0
0	0	0	0
0	0	0	0
0	1	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	2	0	0
0	1	0	0
0	0	0	0
0	0	1	0
0	0	2	0
0	2	0	0
0	5	0	0
0	2	0	0
0	1	0	0
0	0	0	0
0	0	0	0
0	10	3	0
0	8	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/23/19	NORTH & SOUTH:	SR-71 SB Ramps	LOCATION #:	2
WEDNESDAY	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND SR-71 SB Ramps			SOUTHBOUND SR-71 SB Ramps			EASTBOUND Pine			WESTBOUND Pine			
	LANES:	NL X	NT X	NR X	SL 0.5	ST 0.5	SR 1	EL X	ET 1	ER 1	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	1	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	1	/	1	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	1	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.250		0.250
	APP/DEPART	0	/	0	0	/	0	0	/	0	1	/	1	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	1	0	1	0	0	0	0	0	0	2
	4:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
	5:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	1	0	3	0	0	0	0	0	0	4
	APPROACH %	0%	0%	0%	25%	0%	75%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	4	/	0	0	/	1	0	/	3	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	0	0	0	1	0	3	0	0	0	0	0	0	4
	APPROACH %	0%	0%	0%	25%	0%	75%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.500			0.000			0.000		0.500
	APP/DEPART	0	/	0	4	/	0	0	/	1	0	/	3	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/23/19	NORTH & SOUTH:	SR-71 SB Ramps	LOCATION #:	2
WEDNESDAY	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND SR-71 SB Ramps			SOUTHBOUND SR-71 SB Ramps			EASTBOUND Pine			WESTBOUND Pine			
	LANES:	NL X	NT X	NR X	SL 0.5	ST 0.5	SR 1	EL X	ET 1	ER 1	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	7:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	1
	7:45 AM	0	0	0	0	0	0	0	3	0	0	0	0	3
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	1	0	4	0	0	0	0	5
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	1	/	0	4	/	4	0	/	1	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	1	0	4	0	0	0	0	5
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.250			0.333			0.000		0.417
	APP/DEPART	0	/	0	1	/	0	4	/	4	0	/	1	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
	4:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	2	0	0	0	0	0	0	2
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	2	/	0	0	/	0	0	/	2	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	0	0	2	0	0	0	0	0	0	2
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.500			0.000			0.000		0.500
	APP/DEPART	0	/	0	2	/	0	0	/	0	0	/	2	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/23/19	NORTH & SOUTH:	SR-71 SB Ramps	LOCATION #:	2
WEDNESDAY	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND SR-71 SB Ramps			SOUTHBOUND SR-71 SB Ramps			EASTBOUND Pine			WESTBOUND Pine			
	LANES:	NL X	NT X	NR X	SL 0.5	ST 0.5	SR 1	EL X	ET 1	ER 1	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		3:00 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

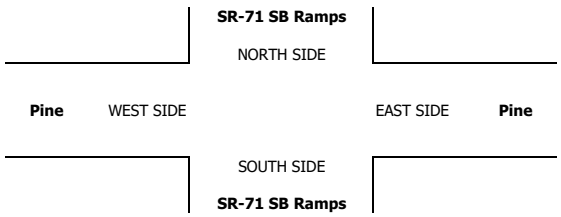
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

NRR X	SRR 0	ERR 0	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

0	0	0	0	0

0	0	0	0	0

NRR X	SRR 0	ERR 0	WRR X
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/23/19	NORTH & SOUTH:	SR-71 SB Ramps	LOCATION #:	2
WEDNESDAY	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND SR-71 SB Ramps			SOUTHBOUND SR-71 SB Ramps			EASTBOUND Pine			WESTBOUND Pine			
	LANES:	NL X	NT X	NR X	SL 0.5	ST 0.5	SR 1	EL X	ET 1	ER 1	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	7:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	8:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	1
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	1	0	4	0	0	0	0	5
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	1	/	0	4	/	4	0	/	1	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	1	0	2	0	0	0	0	3
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.250			0.500			0.000		0.750
	APP/DEPART	0	/	0	1	/	0	2	/	2	0	/	1	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		3:00 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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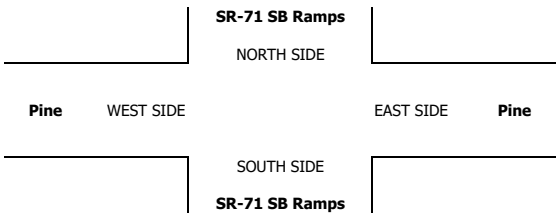
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR 0	ERR 0	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Jan 29, 19

LOCATION: Chino
NORTH & SOUTH: SR-71 SB Ramps
EAST & WEST: Butterfield Ranch

PROJECT #: SC2056
LOCATION #: 3
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N / ◄ W / E ► / S ▼

Add U-Turns to Left Turns

		NORTHBOUND (SR-71 SB Ramps)			SOUTHBOUND (SR-71 SB Ramps)			EASTBOUND (Butterfield Ranch)			WESTBOUND (Butterfield Ranch)			
	LANES:	NL 1	NT X	NR 1	SL 1.5	ST 0.5	SR 1	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	11	0	59	109	4	9	0	137	1	49	70	0	449
	7:15 AM	8	0	62	130	6	6	0	141	7	48	64	0	472
	7:30 AM	2	0	52	157	4	6	0	139	9	43	68	0	480
	7:45 AM	3	0	51	157	11	15	0	120	6	47	70	0	480
	8:00 AM	4	0	62	127	5	9	0	127	7	56	56	0	453
	8:15 AM	7	0	38	116	15	15	0	126	20	76	52	0	465
	8:30 AM	15	0	64	91	11	7	0	134	19	65	31	0	437
	8:45 AM	7	0	46	72	7	14	0	90	8	29	32	0	305
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	57	0	434	959	63	81	0	1,014	77	413	443	0	3,541
	APPROACH %	12%	0%	88%	87%	6%	7%	0%	93%	7%	48%	52%	0%	
	APP/DEPART	491	/	0	1,103	/	196	1,091	/	2,764	856	/	581	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	17	0	227	571	26	36	0	527	29	194	258	0	1,885
	APPROACH %	7%	0%	93%	90%	4%	6%	0%	95%	5%	43%	57%	0%	
	PEAK HR FACTOR		0.871			0.865			0.939			0.966		0.982
	APP/DEPART	244	/	0	633	/	74	556	/	1,500	452	/	311	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	2	0	30	135	8	15	0	144	10	11	37	0	392
	4:15 PM	6	0	23	157	13	10	0	164	23	21	57	0	474
	4:30 PM	9	0	30	140	6	14	0	180	13	16	67	0	475
	4:45 PM	6	0	31	125	9	17	0	192	14	25	56	0	475
	5:00 PM	1	0	28	185	22	14	0	167	11	22	58	0	508
	5:15 PM	5	0	35	146	14	12	0	191	19	34	63	0	519
	5:30 PM	5	0	31	146	20	23	0	151	14	38	59	0	487
	5:45 PM	3	0	29	133	23	21	0	111	18	18	47	0	403
	VOLUMES	37	0	237	1,167	115	126	0	1,300	122	185	444	0	3,733
	APPROACH %	14%	0%	86%	83%	8%	9%	0%	91%	9%	29%	71%	0%	
	APP/DEPART	274	/	0	1,408	/	373	1,422	/	2,753	629	/	607	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	17	0	125	602	65	66	0	701	58	119	236	0	1,989
	APPROACH %	12%	0%	88%	82%	9%	9%	0%	92%	8%	34%	66%	0%	
	PEAK HR FACTOR		0.888			0.829			0.904			0.915		0.958
	APP/DEPART	142	/	0	733	/	212	759	/	1,458	355	/	319	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	
0	0	0	47	47
0	0	0	47	47
0	0	0	38	38
0	0	0	42	42
0	0	0	48	48
0	0	0	60	60
0	0	0	50	50
0	0	0	25	25
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	357	357
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	4	4
0	0	0	5	5
0	0	0	5	5
0	0	0	9	9
0	0	0	4	4
0	0	0	10	10
0	0	0	7	7
0	0	0	5	5
0	0	0	49	49

RTOR

NRR	SRR	ERR	WRR
0	0	0	X
20	3	0	0
14	4	1	0
14	2	3	0
13	3	3	0
27	7	2	0
19	9	4	0
18	4	8	0
26	8	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
151	40	21	0
68	16	9	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
20	5	3	0
10	4	9	0
16	4	3	0
14	5	3	0
12	8	2	0
18	4	4	0
13	9	3	0
18	9	5	0
121	48	32	0
57	26	12	0

SR-71 SB Ramps

NORTH SIDE

Butterfield Ranch WEST SIDE EAST SIDE **Butterfield Ranch**

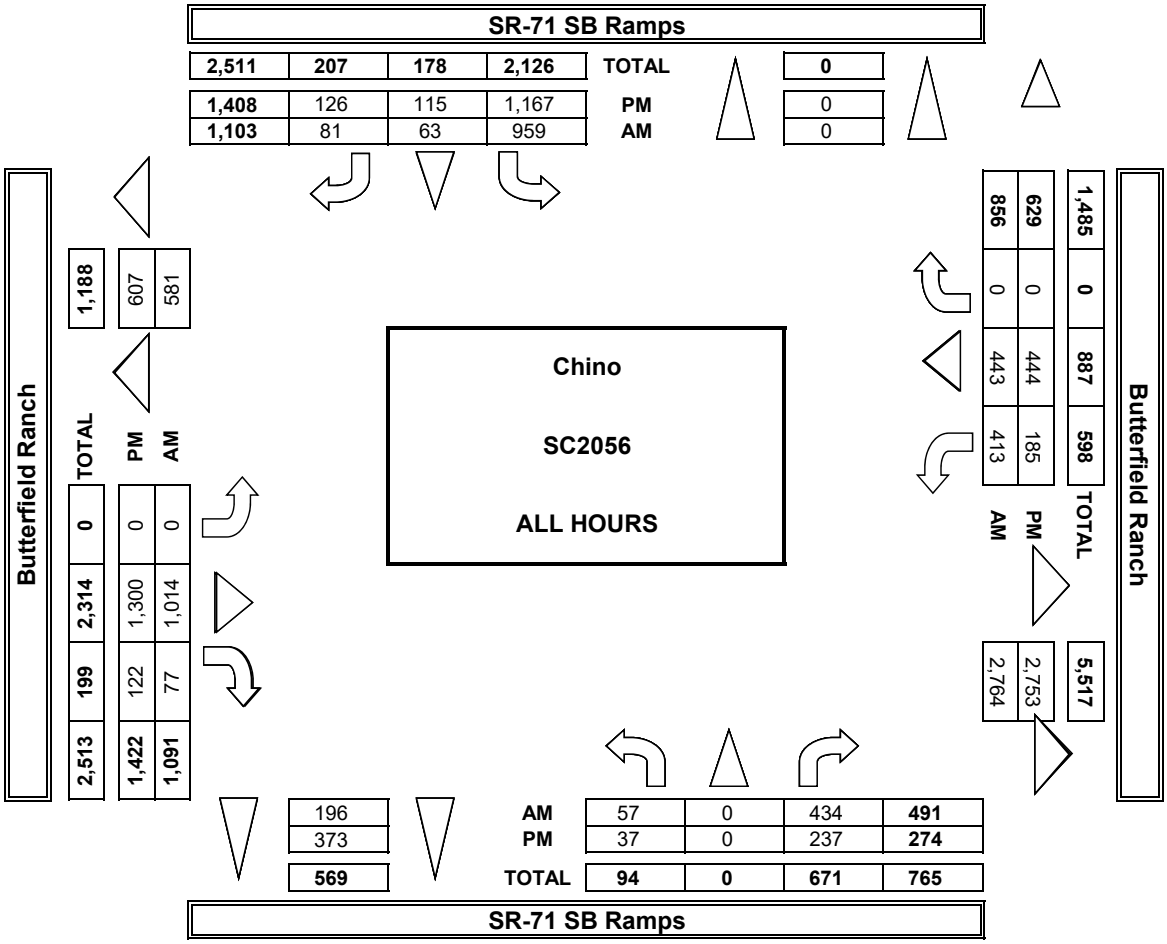
SOUTH SIDE

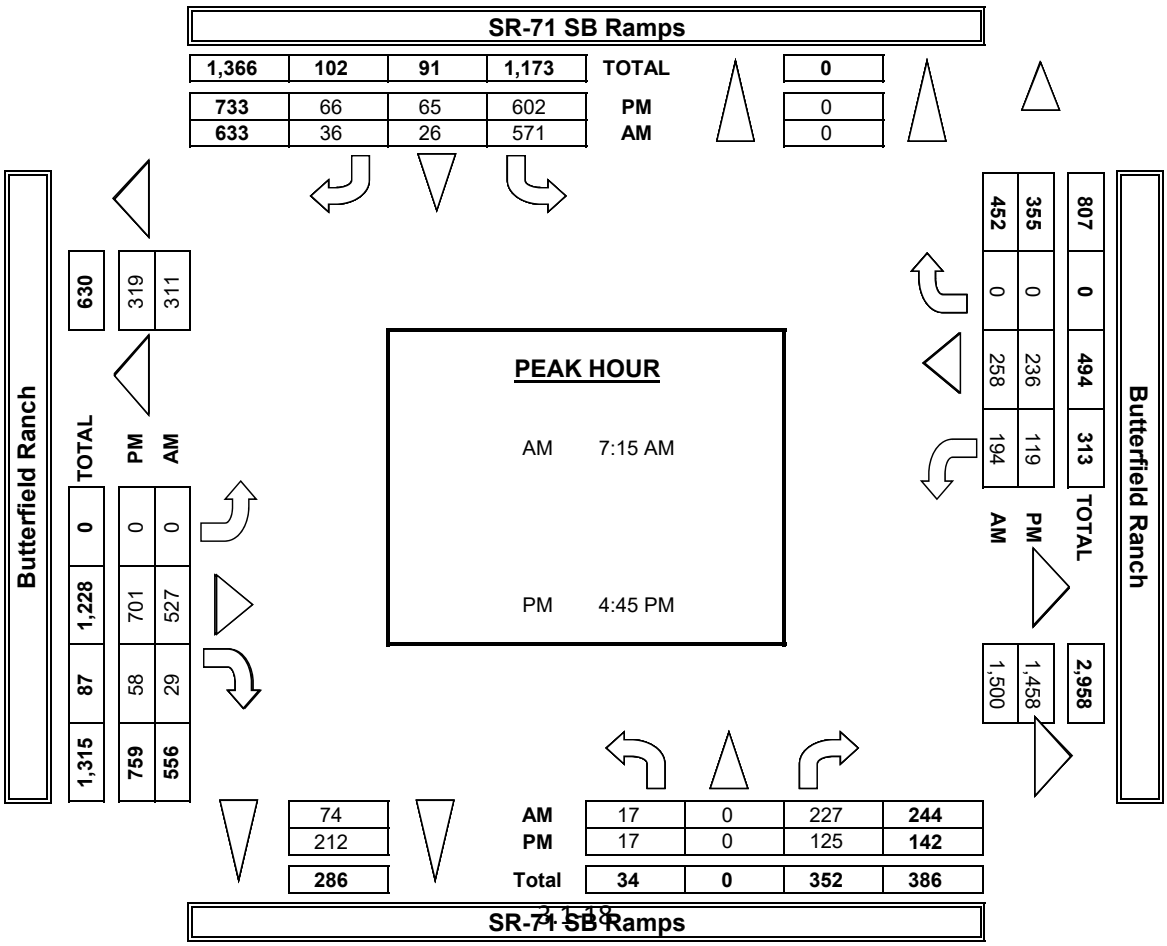
SR-71 SB Ramps

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/29/19	NORTH & SOUTH:	SR-71 SB Ramps	LOCATION #:	3
TUESDAY	EAST & WEST:	Butterfield Ranch	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND (SR-71 SB Ramps)			SOUTHBOUND (SR-71 SB Ramps)			EASTBOUND (Butterfield Ranch)			WESTBOUND (Butterfield Ranch)			
LANES:	NL 1	NT X	NR 1	SL 1.5	ST 0.5	SR 1	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
AM 7:00 AM	10	0	57	101	4	9	0	128	1	44	65	0	419
7:15 AM	8	0	61	118	5	5	0	132	7	46	61	0	443
7:30 AM	2	0	52	147	4	6	0	127	9	39	56	0	442
7:45 AM	3	0	50	144	11	12	0	112	5	44	66	0	447
8:00 AM	4	0	60	112	5	7	0	120	5	49	48	0	410
8:15 AM	6	0	37	104	15	15	0	117	18	71	46	0	429
8:30 AM	14	0	63	82	8	5	0	131	17	63	29	0	412
8:45 AM	7	0	43	63	7	14	0	82	7	29	29	0	281
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	54	0	423	871	59	73	0	949	69	385	400	0	3,283
APPROACH %	11%	0%	89%	87%	6%	7%	0%	93%	7%	49%	51%	0%	
APP/DEPART	477	/	0	1,003	/	181	1,018	/	2,575	785	/	527	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	23	0	220	510	24	32	0	499	22	13	248	0	1,751
APPROACH %	9%	0%	91%	90%	4%	6%	0%	96%	4%	3%	59%	0%	
PEAK HR FACTOR		0.880			0.847			0.937			0.957		0.979
APP/DEPART	243	/	0	566	/	59	521	/	1,389	421	/	303	0
PM 03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	2	0	29	121	7	14	0	138	10	10	33	0	364
4:15 PM	6	0	23	145	13	10	0	155	23	21	53	0	449
4:30 PM	9	0	30	134	6	13	0	171	13	14	64	0	454
4:45 PM	6	0	30	120	9	17	0	186	14	25	51	0	458
5:00 PM	1	0	27	177	21	14	0	156	11	21	57	0	485
5:15 PM	5	0	35	144	14	12	0	184	19	34	63	0	510
5:30 PM	5	0	31	141	20	22	0	147	14	38	57	0	475
5:45 PM	3	0	26	129	23	20	0	108	18	18	44	0	389
VOLUMES	37	0	231	1,111	113	122	0	1,245	122	181	422	0	3,584
APPROACH %	14%	0%	86%	83%	8%	9%	0%	91%	9%	30%	70%	0%	
APP/DEPART	268	/	0	1,346	/	368	1,367	/	2,635	603	/	581	0
BEGIN PEAK HR		4:45 PM											
VOLUMES	17	0	123	582	64	65	0	673	58	89	228	0	1,928
APPROACH %	12%	0%	88%	82%	9%	9%	0%	92%	8%	26%	66%	0%	
PEAK HR FACTOR		0.875			0.838			0.900			0.892		0.945
APP/DEPART	140	/	0	711	/	211	731	/	1,407	346	/	310	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	42	42
0	0	0	45	45
0	0	0	34	34
0	0	0	39	39
0	0	0	43	43
0	0	0	55	55
0	0	0	49	49
0	0	0	25	25
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	332	332
0	0	0	0	0
0	0	0	5	5
0	0	0	5	5
0	0	0	9	9
0	0	0	3	3
0	0	0	10	10
0	0	0	7	7
0	0	0	5	5
0	0	0	48	48

RTOR

NRR 0	SRR 0	ERR 0	WRR X
20	3	0	0
14	3	1	0
14	2	3	0
12	3	3	0
26	5	0	0
18	9	4	0
17	4	6	0
26	8	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
147	37	17	0
60	11	7	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
117	47	32	0
56	26	12	0

SR-71 SB Ramps

NORTH SIDE

Butterfield Ranch WEST SIDE EAST SIDE **Butterfield Ranch**

SOUTH SIDE

SR-71 SB Ramps

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/29/19	NORTH & SOUTH:	SR-71 SB Ramps	LOCATION #:	3
TUESDAY	EAST & WEST:	Butterfield Ranch	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

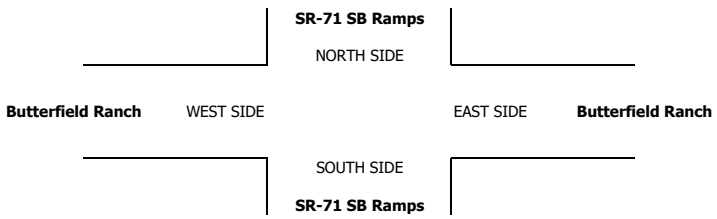
		NORTHBOUND SR-71 SB Ramps			SOUTHBOUND SR-71 SB Ramps			EASTBOUND Butterfield Ranch			WESTBOUND Butterfield Ranch			
	LANES:	NL 1	NT X	NR 1	SL 1.5	ST 0.5	SR 1	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	2	5	0	0	0	4	0	5	3	0	19
	7:15 AM	0	0	0	9	1	1	0	9	0	2	2	0	24
	7:30 AM	0	0	0	6	0	0	0	11	0	3	9	0	29
	7:45 AM	0	0	1	5	0	2	0	8	1	3	3	0	23
	8:00 AM	0	0	2	7	0	1	0	5	1	6	7	0	29
	8:15 AM	1	0	1	7	0	0	0	9	0	5	5	0	28
	8:30 AM	0	0	0	4	3	2	0	3	1	2	2	0	17
	8:45 AM	0	0	2	4	0	0	0	6	1	0	3	0	16
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	1	0	8	47	4	6	0	55	4	26	34	0	185
	APPROACH %	11%	0%	89%	82%	7%	11%	0%	93%	7%	43%	57%	0%	
	APP/DEPART	9	/	0	57	/	10	59	/	134	60	/	41	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	1	0	4	25	0	3	0	33	2	1	24	0	109
	APPROACH %	20%	0%	80%	89%	0%	11%	0%	94%	6%	2%	59%	0%	
	PEAK HR FACTOR		0.625			0.875			0.795			0.788		0.940
	APP/DEPART	5	/	0	28	/	3	35	/	78	41	/	28	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	1	12	1	1	0	6	0	1	4	0	26
	4:15 PM	0	0	0	8	0	0	0	9	0	0	4	0	21
	4:30 PM	0	0	0	3	0	1	0	8	0	2	2	0	16
	4:45 PM	0	0	1	3	0	0	0	5	0	0	3	0	12
	5:00 PM	0	0	1	5	1	0	0	10	0	1	1	0	19
	5:15 PM	0	0	0	0	0	0	0	5	0	0	0	0	5
	5:30 PM	0	0	0	3	0	1	0	4	0	0	2	0	10
	5:45 PM	0	0	3	2	0	1	0	3	0	0	3	0	12
	VOLUMES	0	0	6	36	2	4	0	50	0	4	19	0	121
	APPROACH %	0%	0%	100%	86%	5%	10%	0%	100%	0%	17%	83%	0%	
	APP/DEPART	6	/	0	42	/	5	50	/	93	23	/	23	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	2	26	1	2	0	28	0	3	13	0	75
	APPROACH %	0%	0%	100%	90%	3%	7%	0%	100%	0%	19%	81%	0%	
	PEAK HR FACTOR		0.500			0.518			0.778			0.800		0.721
	APP/DEPART	2	/	0	29	/	4	28	/	56	16	/	15	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	5	5
0	0	0	2	2
0	0	0	3	3
0	0	0	3	3
0	0	0	5	5
0	0	0	5	5
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	24	24
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1

RTOR

NRR 0	SRR 0	ERR 0	WRR X
0	0	0	0
0	1	0	0
0	0	0	0
1	0	0	0
1	1	1	0
1	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
3	2	2	0
3	1	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	1	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
0	0	0	0
0	0	0	0
2	0	0	0
4	1	0	0
1	1	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/29/19	NORTH & SOUTH:	SR-71 SB Ramps	LOCATION #:	3
TUESDAY	EAST & WEST:	Butterfield Ranch	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND SR-71 SB Ramps			SOUTHBOUND SR-71 SB Ramps			EASTBOUND Butterfield Ranch			WESTBOUND Butterfield Ranch			
LANES:	NL 1	NT X	NR 1	SL 1.5	ST 0.5	SR 1	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
AM													
7:00 AM	0	0	0	2	0	0	0	1	0	0	1	0	4
7:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	1	1	0	2
7:45 AM	0	0	0	1	0	1	0	0	0	0	0	0	2
8:00 AM	0	0	0	2	0	0	0	0	0	0	0	0	2
8:15 AM	0	0	0	4	0	0	0	0	0	0	1	0	5
8:30 AM	1	0	0	1	0	0	0	0	1	0	0	0	3
8:45 AM	0	0	0	1	0	0	0	1	0	0	0	0	2
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	1	0	0	12	0	1	0	2	1	1	3	0	21
APPROACH %	100%	0%	0%	92%	0%	8%	0%	67%	33%	25%	75%	0%	
APP/DEPART	1	/	0	13	/	1	3	/	15	4	/	5	0
BEGIN PEAK HR		7:45 AM											
VOLUMES	1	0	0	8	0	0	0	1	1	0	1	0	12
APPROACH %	100%	0%	0%	100%	0%	0%	0%	50%	50%	0%	100%	0%	
PEAK HR FACTOR		0.250			0.500			0.500			0.250		0.600
APP/DEPART	1	/	0	8	/	1	2	/	9	1	/	2	0
PM													
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	2	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	2	0	0	0	1	0	0	0	0	3
5:00 PM	0	0	0	2	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:30 PM	0	0	0	2	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	9	0	0	0	2	0	0	0	0	11
APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	0%	
APP/DEPART	0	/	0	9	/	0	2	/	11	0	/	0	0
BEGIN PEAK HR		4:15 PM											
VOLUMES	0	0	0	6	0	0	0	2	0	0	0	0	8
APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.750			0.500			0.000		0.667
APP/DEPART	0	/	0	6	/	0	2	/	8	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1

RTOR

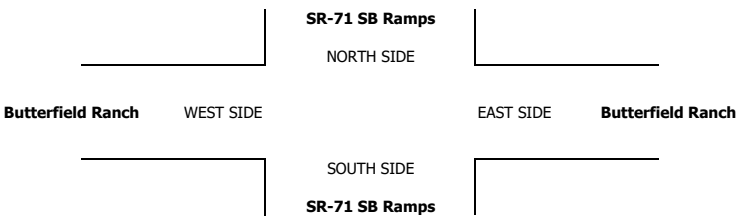
NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0

NRR	SRR	ERR	WRR
0	0	1	0

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

NRR	SRR	ERR	WRR
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/29/19	NORTH & SOUTH:	SR-71 SB Ramps	LOCATION #:	3
TUESDAY	EAST & WEST:	Butterfield Ranch	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

	NORTHBOUND SR-71 SB Ramps			SOUTHBOUND SR-71 SB Ramps			EASTBOUND Butterfield Ranch			WESTBOUND Butterfield Ranch			
LANES:	NL 1	NT X	NR 1	SL 1.5	ST 0.5	SR 1	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
7:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	1	0	0	0	0	0	0	1	0	2
7:30 AM	0	0	0	4	0	0	0	0	0	0	0	0	4
7:45 AM	0	0	0	7	0	0	0	0	0	0	1	0	8
8:00 AM	0	0	0	6	0	1	0	1	0	0	0	0	8
8:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	1	3	0	0	0	0	0	0	0	0	4
8:45 AM	0	0	0	4	0	0	0	1	0	0	0	0	5
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	1	27	0	1	0	2	0	0	2	0	33
APPROACH %	0%	0%	100%	96%	0%	4%	0%	100%	0%	0%	100%	0%	
APP/DEPART	1	/	0	28	/	0	2	/	30	2	/	3	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	0	0	0	18	0	1	0	1	0	0	2	0	22
APPROACH %	0%	0%	0%	95%	0%	5%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.679			0.250			0.500		0.688
APP/DEPART	0	/	0	19	/	0	1	/	19	2	/	3	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	2	0	0	0	0	0	0	0	0	2
4:15 PM	0	0	0	3	0	0	0	0	0	0	0	0	3
4:30 PM	0	0	0	1	0	0	0	1	0	0	1	0	3
4:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
5:00 PM	0	0	0	1	0	0	0	1	0	0	0	0	2
5:15 PM	0	0	0	2	0	0	0	1	0	0	0	0	3
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	2	0	0	0	0	0	0	0	0	2
VOLUMES	0	0	0	11	0	0	0	3	0	0	3	0	17
APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%	
APP/DEPART	0	/	0	11	/	0	3	/	14	3	/	3	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	0	0	4	0	0	0	3	0	0	3	0	10
APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.333			0.750			0.375		0.833
APP/DEPART	0	/	0	4	/	0	3	/	7	3	/	3	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR 0	ERR 0	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	1	0	0
0	0	0	0
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	1	0	0
0	1	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

SR-71 SB Ramps

NORTH SIDE

Butterfield Ranch WEST SIDE EAST SIDE **Butterfield Ranch**

SOUTH SIDE

SR-71 SB Ramps

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/29/19	NORTH & SOUTH:	SR-71 SB Ramps	LOCATION #:	3
TUESDAY	EAST & WEST:	Butterfield Ranch	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND SR-71 SB Ramps			SOUTHBOUND SR-71 SB Ramps			EASTBOUND Butterfield Ranch			WESTBOUND Butterfield Ranch			
LANES:	NL 1	NT X	NR 1	SL 1.5	ST 0.5	SR 1	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM 03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR		3:00 PM											
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

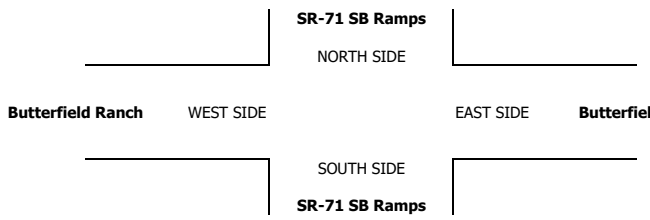
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/29/19	NORTH & SOUTH:	SR-71 SB Ramps	LOCATION #:	3
TUESDAY	EAST & WEST:	Butterfield Ranch	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND SR-71 SB Ramps			SOUTHBOUND SR-71 SB Ramps			EASTBOUND Butterfield Ranch			WESTBOUND Butterfield Ranch				U-TURNS					RTOR			
	LANES:	NL 1	NT X	NR 1	SL 1.5	ST 0.5	SR 1	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL	NB	SB	EB	WB	TTL	NRR 0	SRR 0	ERR 0	WRR X
AM	7:00 AM	1	0	0	0	0	0	0	4	0	0	1	0	6	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	1	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	1	0	0	2	0	3	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	1	1	1	1	0	4	0	0	0	0	0	0	0	1	0
	8:15 AM	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	1	0	2	2	0	0	0	6	3	1	4	0	19	0	0	0	0	0	0	0	1	0
	APPROACH %	33%	0%	67%	100%	0%	0%	0%	67%	33%	20%	80%	0%										
	APP/DEPART	3	/	0	2	/	4	9	/	10	5	/	5	0									
	BEGIN PEAK HR		7:00 AM																				
	VOLUMES	1	0	1	1	0	0	0	5	0	0	3	0	11						0	0	0	0
	APPROACH %	50%	0%	50%	100%	0%	0%	0%	100%	0%	0%	100%	0%										
	PEAK HR FACTOR		0.500			0.250			0.313			0.375		0.458									
	APP/DEPART	2	/	0	1	/	0	5	/	7	3	/	4	0									
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0									
	BEGIN PEAK HR		3:00 PM																				
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0						0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000									
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0									



INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Jan 29, 19

LOCATION: Chino
NORTH & SOUTH: SR-71 SB Ramps
EAST & WEST: Butterfield Ranch

PROJECT #: SC2056
LOCATION #: 3a
CONTROL:

NOTES:

AM PM MD OTHER OTHER — ▲ N, ◄ W, E ►, S ▼

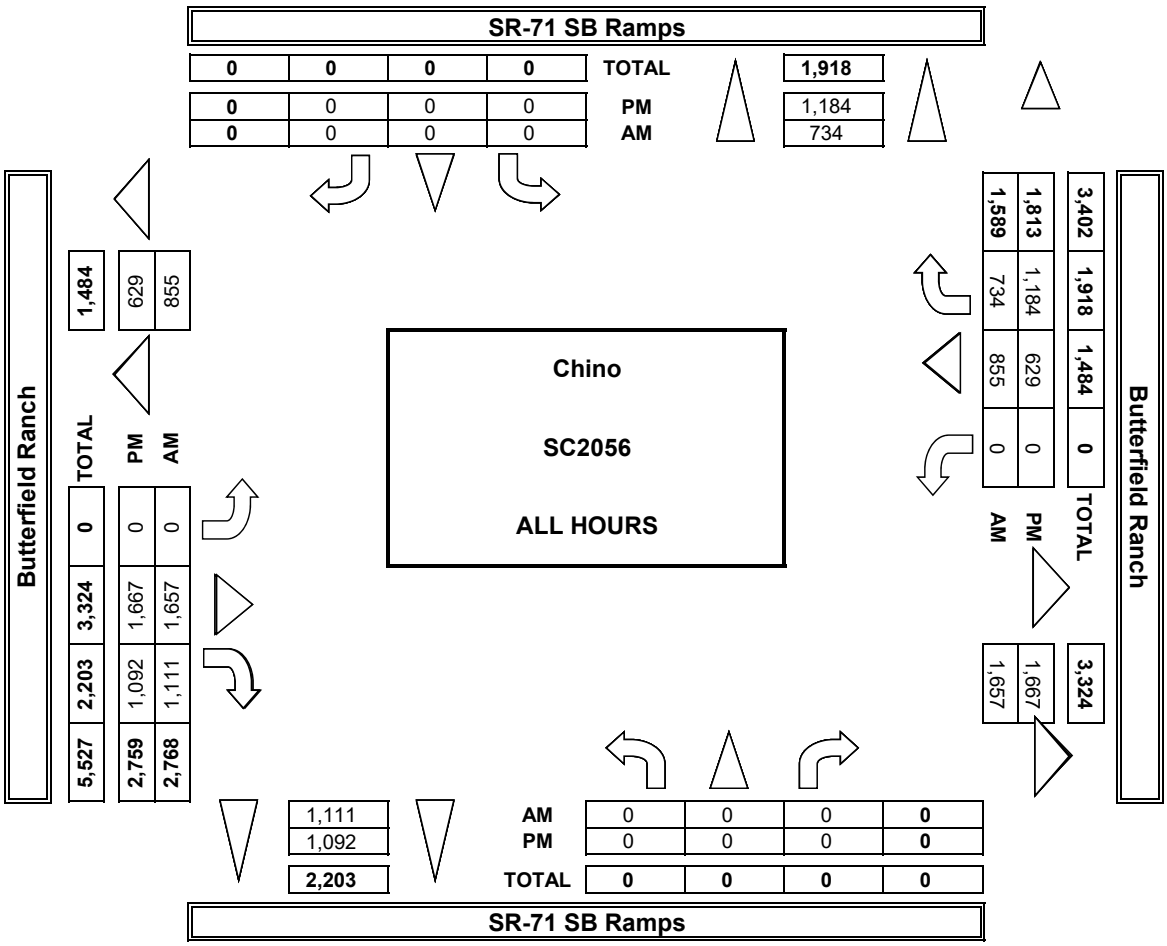
Add U-Turns to Left Turns

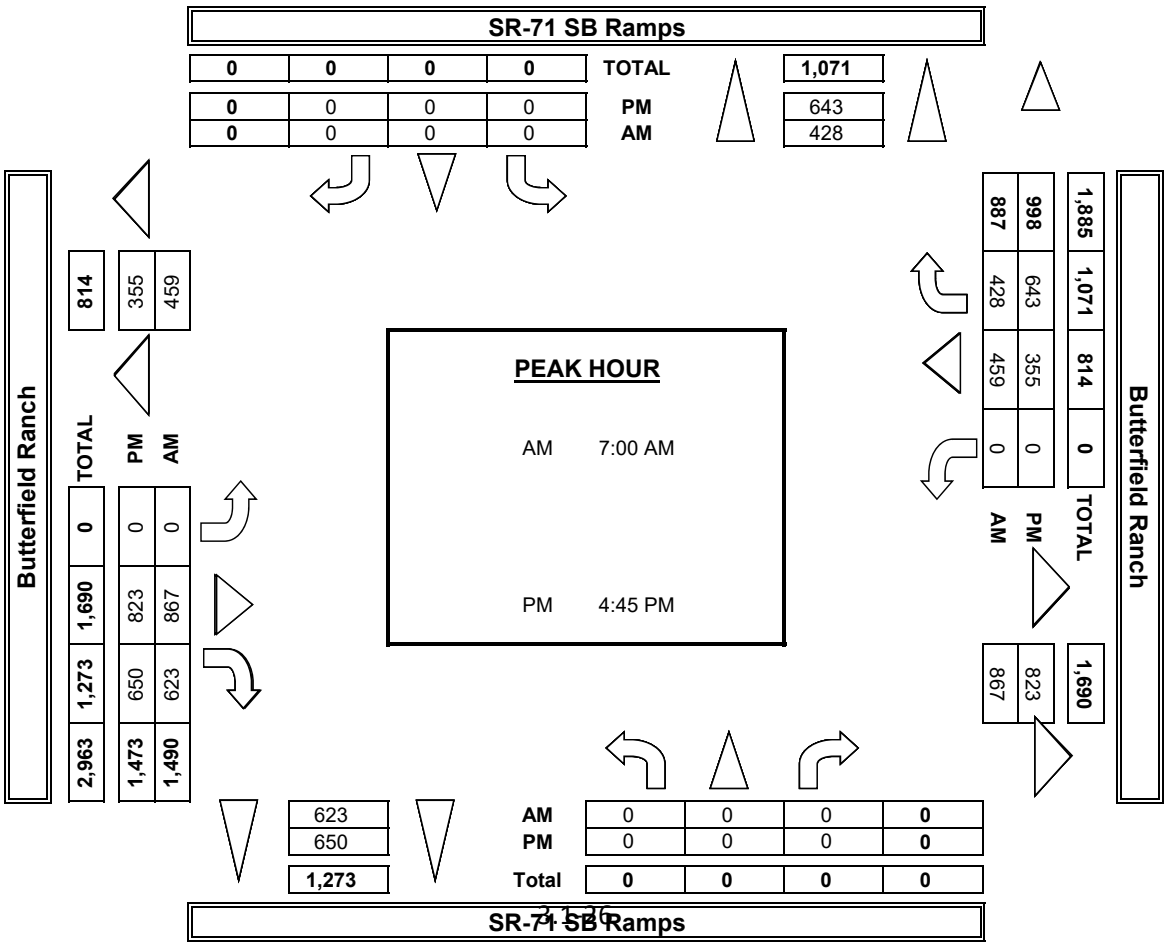
		NORTHBOUND (SR-71 SB Ramps)			SOUTHBOUND (SR-71 SB Ramps)			EASTBOUND (Butterfield Ranch)			WESTBOUND (Butterfield Ranch)			
	LANES:	NL X	NT X	NR X	SL X	ST X	SR X	EL X	ET 2	ER 2	WL X	WT 2	WR 2	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	175	177	0	119	104	575
	7:15 AM	0	0	0	0	0	0	0	212	168	0	112	116	608
	7:30 AM	0	0	0	0	0	0	0	242	145	0	111	117	615
	7:45 AM	0	0	0	0	0	0	0	238	133	0	117	91	579
	8:00 AM	0	0	0	0	0	0	0	243	122	0	112	82	559
	8:15 AM	0	0	0	0	0	0	0	218	123	0	128	73	542
	8:30 AM	0	0	0	0	0	0	0	224	115	0	96	77	512
	8:45 AM	0	0	0	0	0	0	0	105	128	0	60	74	367
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	1,657	1,111	0	855	734	4,357
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	60%	40%	0%	54%	46%	
	APP/DEPART	0	/	734	0	/	1,111	2,768	/	1,657	1,589	/	855	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	867	623	0	459	428	2,377
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	58%	42%	0%	52%	48%	
	PEAK HR FACTOR		0.000			0.000			0.963			0.973		0.966
	APP/DEPART	0	/	428	0	/	623	1,490	/	867	887	/	459	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	248	65	0	48	124	485
	4:15 PM	0	0	0	0	0	0	0	259	91	0	78	145	573
	4:30 PM	0	0	0	0	0	0	0	203	152	0	83	119	557
	4:45 PM	0	0	0	0	0	0	0	205	154	0	81	163	603
	5:00 PM	0	0	0	0	0	0	0	229	145	0	80	165	619
	5:15 PM	0	0	0	0	0	0	0	214	178	0	97	153	642
	5:30 PM	0	0	0	0	0	0	0	175	173	0	97	162	607
	5:45 PM	0	0	0	0	0	0	0	134	134	0	65	153	486
	VOLUMES	0	0	0	0	0	0	0	1,667	1,092	0	629	1,184	4,572
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	60%	40%	0%	35%	65%	
	APP/DEPART	0	/	1,184	0	/	1,092	2,759	/	1,667	1,813	/	629	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	0	0	0	0	0	0	0	823	650	0	355	643	2,471
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	56%	44%	0%	36%	64%	
	PEAK HR FACTOR		0.000			0.000			0.939			0.963		0.962
	APP/DEPART	0	/	643	0	/	650	1,473	/	823	998	/	355	0

U-TURNS					
	NB	SB	EB	WB	TTL
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/29/19	NORTH & SOUTH:	SR-71 SB Ramps	LOCATION #:	3a
TUESDAY	EAST & WEST:	Butterfield Ranch	CONTROL:	0

CLASS 1:	NOTES:
PASSENGER VEHICLES	

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

	NORTHBOUND SR-71 SB Ramps			SOUTHBOUND SR-71 SB Ramps			EASTBOUND Butterfield Ranch			WESTBOUND Butterfield Ranch			
LANES:	NL X	NT X	NR X	SL X	ST X	SR X	EL X	ET 2	ER 2	WL X	WT 2	WR 2	TOTAL
7:00 AM	0	0	0	0	0	0	0	159	164	0	108	94	525
7:15 AM	0	0	0	0	0	0	0	200	155	0	106	105	566
7:30 AM	0	0	0	0	0	0	0	228	139	0	95	100	562
7:45 AM	0	0	0	0	0	0	0	222	120	0	110	81	533
8:00 AM	0	0	0	0	0	0	0	222	112	0	100	71	505
8:15 AM	0	0	0	0	0	0	0	202	118	0	118	60	498
8:30 AM	0	0	0	0	0	0	0	212	112	0	93	69	486
8:45 AM	0	0	0	0	0	0	0	91	123	0	54	67	335
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	1,536	1,043	0	784	647	4,010
APPROACH %	0%	0%	0%	0%	0%	0%	0%	60%	40%	0%	55%	45%	
APP/DEPART	0	/	647	0	/	1,043	2,579	/	1,536	1,431	/	784	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	0	0	0	0	0	0	809	578	0	419	380	2,186
APPROACH %	0%	0%	0%	0%	0%	0%	0%	58%	42%	0%	52%	48%	
PEAK HR FACTOR		0.000			0.000			0.945			0.947		0.966
APP/DEPART	0	/	380	0	/	578	1,387	/	809	799	/	419	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	234	63	0	43	115	455
4:15 PM	0	0	0	0	0	0	0	242	89	0	74	133	538
4:30 PM	0	0	0	0	0	0	0	195	145	0	78	113	531
4:45 PM	0	0	0	0	0	0	0	198	149	0	76	155	578
5:00 PM	0	0	0	0	0	0	0	214	139	0	78	161	592
5:15 PM	0	0	0	0	0	0	0	210	168	0	97	147	622
5:30 PM	0	0	0	0	0	0	0	173	166	0	95	154	588
5:45 PM	0	0	0	0	0	0	0	132	124	0	62	142	460
VOLUMES	0	0	0	0	0	0	0	1,598	1,043	0	603	1,120	4,364
APPROACH %	0%	0%	0%	0%	0%	0%	0%	61%	39%	0%	35%	65%	
APP/DEPART	0	/	1,120	0	/	1,043	2,641	/	1,598	1,723	/	603	0
BEGIN PEAK HR		4:45 PM											
VOLUMES	0	0	0	0	0	0	0	795	622	0	346	617	2,380
APPROACH %	0%	0%	0%	0%	0%	0%	0%	56%	44%	0%	36%	64%	
PEAK HR FACTOR		0.000			0.000			0.937			0.967		0.957
APP/DEPART	0	/	617	0	/	622	1,417	/	795	963	/	346	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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0	0	0	0
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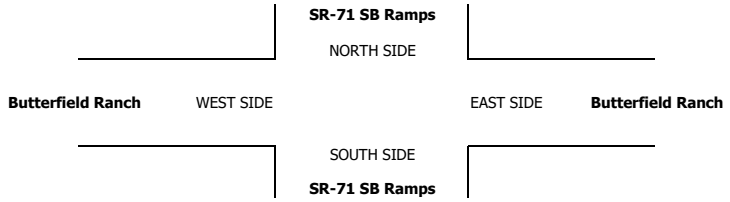
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/29/19	NORTH & SOUTH:	SR-71 SB Ramps	LOCATION #:	3a
TUESDAY	EAST & WEST:	Butterfield Ranch	CONTROL:	0

CLASS 2:	NOTES:	AM		▲ N	
2-AXLE WORK VEHICLES/ TRUCKS		PM			
		MD	◄ W		E ►
		OTHER		S ▼	
		OTHER			

		NORTHBOUND SR-71 SB Ramps			SOUTHBOUND SR-71 SB Ramps			EASTBOUND Butterfield Ranch			WESTBOUND Butterfield Ranch			
	LANES:	NL X	NT X	NR X	SL X	ST X	SR X	EL X	ET 2	ER 2	WL X	WT 2	WR 2	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	7	13	0	9	7	36
	7:15 AM	0	0	0	0	0	0	0	9	12	0	5	6	32
	7:30 AM	0	0	0	0	0	0	0	10	5	0	12	10	37
	7:45 AM	0	0	0	0	0	0	0	8	10	0	6	6	30
	8:00 AM	0	0	0	0	0	0	0	14	7	0	10	4	35
	8:15 AM	0	0	0	0	0	0	0	12	5	0	9	5	31
	8:30 AM	0	0	0	0	0	0	0	7	2	0	3	4	16
	8:45 AM	0	0	0	0	0	0	0	9	4	0	6	3	22
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	76	58	0	60	45	239
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	57%	43%	0%	57%	43%	
	APP/DEPART	0	/	45	0	/	58	134	/	76	105	/	60	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	34	40	0	32	29	135
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	46%	54%	0%	52%	48%	
	PEAK HR FACTOR		0.000			0.000			0.881			0.693		0.912
	APP/DEPART	0	/	29	0	/	40	74	/	34	61	/	32	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	12	2	0	5	2	21
	4:15 PM	0	0	0	0	0	0	0	15	2	0	4	7	28
	4:30 PM	0	0	0	0	0	0	0	5	6	0	4	3	18
	4:45 PM	0	0	0	0	0	0	0	4	5	0	3	2	14
	5:00 PM	0	0	0	0	0	0	0	12	5	0	2	3	22
	5:15 PM	0	0	0	0	0	0	0	1	9	0	0	2	12
	5:30 PM	0	0	0	0	0	0	0	0	7	0	2	1	10
	5:45 PM	0	0	0	0	0	0	0	0	8	0	3	2	13
	VOLUMES	0	0	0	0	0	0	0	49	44	0	23	22	138
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	53%	47%	0%	51%	49%	
	APP/DEPART	0	/	22	0	/	44	93	/	49	45	/	23	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	0	0	0	0	0	0	0	36	18	0	13	15	82
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	67%	33%	0%	46%	54%	
	PEAK HR FACTOR		0.000			0.000			0.794			0.636		0.732
	APP/DEPART	0	/	15	0	/	18	54	/	36	28	/	13	0

U-TURNS					
NB	SB	EB	WB	TTL	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/29/19	NORTH & SOUTH:	SR-71 SB Ramps	LOCATION #:	3a
TUESDAY	EAST & WEST:	Butterfield Ranch	CONTROL:	0

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND SR-71 SB Ramps			SOUTHBOUND SR-71 SB Ramps			EASTBOUND Butterfield Ranch			WESTBOUND Butterfield Ranch			
LANES:	NL X	NT X	NR X	SL X	ST X	SR X	EL X	ET 2	ER 2	WL X	WT 2	WR 2	TOTAL
AM 7:00 AM	0	0	0	0	0	0	0	2	0	0	1	0	3
7:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	2
7:30 AM	0	0	0	0	0	0	0	1	0	0	2	1	4
7:45 AM	0	0	0	0	0	0	0	2	2	0	0	1	5
8:00 AM	0	0	0	0	0	0	0	1	1	0	0	2	4
8:15 AM	0	0	0	0	0	0	0	3	0	0	1	1	5
8:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	2
8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	10	5	0	4	7	26
APPROACH %	0%	0%	0%	0%	0%	0%	0%	67%	33%	0%	36%	64%	
APP/DEPART	0	/	7	0	/	5	15	/	10	11	/	4	0
BEGIN PEAK HR		7:30 AM											
VOLUMES	0	0	0	0	0	0	0	7	3	0	3	5	18
APPROACH %	0%	0%	0%	0%	0%	0%	0%	70%	30%	0%	38%	63%	
PEAK HR FACTOR		0.000			0.000			0.625			0.667		0.900
APP/DEPART	0	/	5	0	/	3	10	/	7	8	/	3	0
PM 03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
4:15 PM	0	0	0	0	0	0	0	1	0	0	0	1	2
4:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	3	0	0	0	0	3
5:00 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	1	0	0	0	1	2
5:30 PM	0	0	0	0	0	0	0	2	0	0	0	2	4
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
VOLUMES	0	0	0	0	0	0	0	11	0	0	0	6	17
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	100%	
APP/DEPART	0	/	6	0	/	0	11	/	11	6	/	0	0
BEGIN PEAK HR		4:45 PM											
VOLUMES	0	0	0	0	0	0	0	8	0	0	0	3	11
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	100%	
PEAK HR FACTOR		0.000			0.000			0.667			0.375		0.688
APP/DEPART	0	/	3	0	/	0	8	/	8	3	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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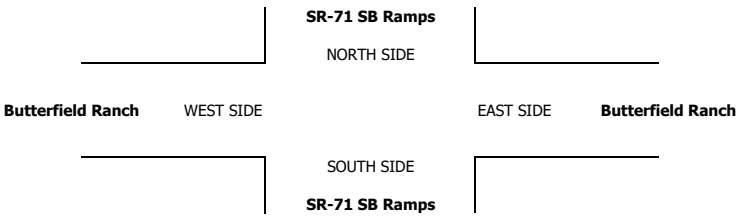
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/29/19	NORTH & SOUTH:	SR-71 SB Ramps	LOCATION #:	3a
TUESDAY	EAST & WEST:	Butterfield Ranch	CONTROL:	0

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND SR-71 SB Ramps			SOUTHBOUND SR-71 SB Ramps			EASTBOUND Butterfield Ranch			WESTBOUND Butterfield Ranch			
	LANES:	NL X	NT X	NR X	SL X	ST X	SR X	EL X	ET 2	ER 2	WL X	WT 2	WR 2	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	3	0	0	0	3	6
	7:15 AM	0	0	0	0	0	0	0	1	0	0	1	4	6
	7:30 AM	0	0	0	0	0	0	0	2	1	0	0	6	9
	7:45 AM	0	0	0	0	0	0	0	6	1	0	1	3	11
	8:00 AM	0	0	0	0	0	0	0	5	2	0	0	5	12
	8:15 AM	0	0	0	0	0	0	0	1	0	0	0	7	8
	8:30 AM	0	0	0	0	0	0	0	4	0	0	0	3	7
	8:45 AM	0	0	0	0	0	0	0	3	1	0	0	4	8
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	25	5	0	2	35	67
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	83%	17%	0%	5%	95%	
	APP/DEPART	0	/	35	0	/	5	30	/	25	37	/	2	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	0	0	0	0	0	0	0	14	4	0	1	21	40
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	78%	22%	0%	5%	95%	
	PEAK HR FACTOR		0.000			0.000			0.643			0.786		0.833
	APP/DEPART	0	/	21	0	/	4	18	/	14	22	/	1	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	2	0	0	0	6	8
	4:15 PM	0	0	0	0	0	0	0	1	0	0	0	4	5
	4:30 PM	0	0	0	0	0	0	0	1	1	0	1	3	6
	4:45 PM	0	0	0	0	0	0	0	0	0	0	2	6	8
	5:00 PM	0	0	0	0	0	0	0	1	1	0	0	1	3
	5:15 PM	0	0	0	0	0	0	0	2	1	0	0	3	6
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	5	5
	5:45 PM	0	0	0	0	0	0	0	2	2	0	0	8	12
	VOLUMES	0	0	0	0	0	0	0	9	5	0	3	36	53
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	64%	36%	0%	8%	92%	
	APP/DEPART	0	/	36	0	/	5	14	/	9	39	/	3	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	0	0	0	0	4	1	0	3	19	27
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	80%	20%	0%	14%	86%	
	PEAK HR FACTOR		0.000			0.000			0.625			0.688		0.844
	APP/DEPART	0	/	19	0	/	1	5	/	4	22	/	3	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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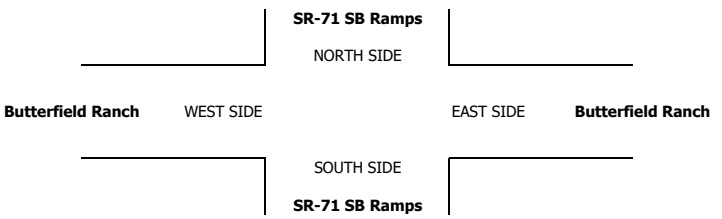
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/29/19	NORTH & SOUTH:	SR-71 SB Ramps	LOCATION #:	3a
TUESDAY	EAST & WEST:	Butterfield Ranch	CONTROL:	0

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND SR-71 SB Ramps			SOUTHBOUND SR-71 SB Ramps			EASTBOUND Butterfield Ranch			WESTBOUND Butterfield Ranch			
	LANES:	NL X	NT X	NR X	SL X	ST X	SR X	EL X	ET 2	ER 2	WL X	WT 2	WR 2	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		3:00 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

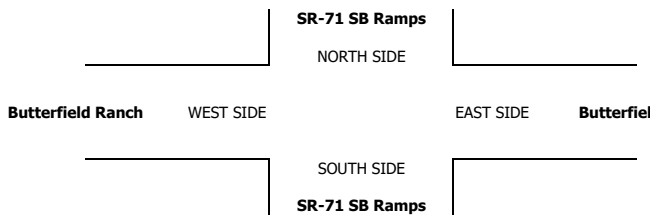
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/29/19	NORTH & SOUTH:	SR-71 SB Ramps	LOCATION #:	3a
TUESDAY	EAST & WEST:	Butterfield Ranch	CONTROL:	0

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, ▼ S

		NORTHBOUND SR-71 SB Ramps			SOUTHBOUND SR-71 SB Ramps			EASTBOUND Butterfield Ranch			WESTBOUND Butterfield Ranch				U-TURNS					RTOR			
	LANES:	NL X	NT X	NR X	SL X	ST X	SR X	EL X	ET 2	ER 2	WL X	WT 2	WR 2	TOTAL	NB	SB	EB	WB	TTL	NRR X	SRR X	ERR X	WRR X
AM	7:00 AM	0	0	0	0	0	0	0	4	0	0	1	0	5	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	1	0	0	2	0	3	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	1	0	0	2	0	3	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	10	0	0	5	0	15	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%										
	APP/DEPART	0	/	0	0	/	0	10	/	10	5	/	5	0									
	BEGIN PEAK HR		7:00 AM																				
	VOLUMES	0	0	0	0	0	0	0	7	0	0	3	0	10						0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%										
	PEAK HR FACTOR		0.000			0.000			0.438			0.375		0.500									
	APP/DEPART	0	/	0	0	/	0	7	/	7	3	/	3	0									
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0									
	BEGIN PEAK HR		3:00 PM																				
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0						0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000									
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0									



INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
Wed, Jan 23, 19	NORTH & SOUTH:	Central	LOCATION #:	4
	EAST & WEST:	SR-71 NB Ramps	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N / ◄ W / E ► / S ▼

Add U-Turns to Left Turns

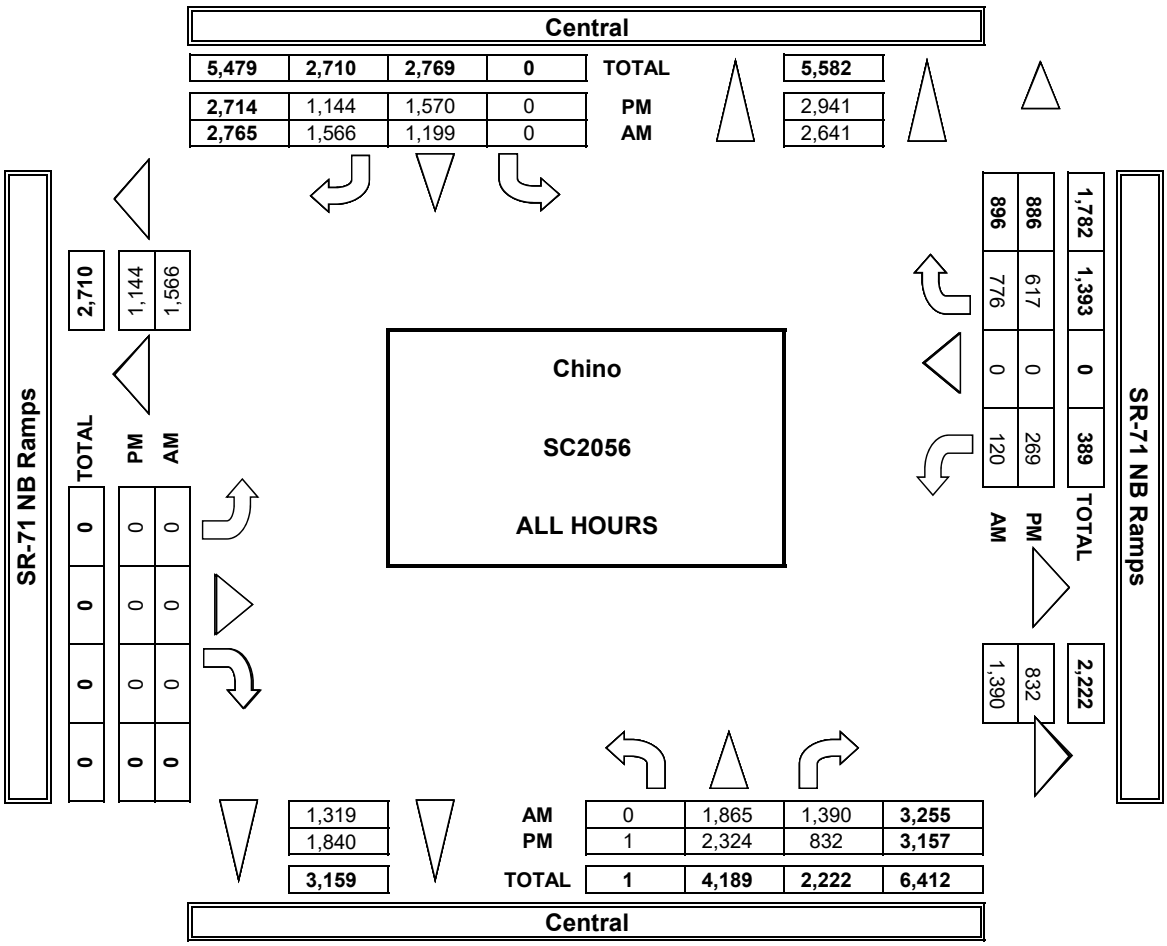
		NORTHBOUND (Central)			SOUTHBOUND (Central)			EASTBOUND (SR-71 NB Ramps)			WESTBOUND (SR-71 NB Ramps)			
	LANES:	NL X	NT 3	NR 2	SL X	ST 3	SR 1	EL X	ET X	ER X	WL 1.5	WT X	WR 0.5	TOTAL
AM	7:00 AM	0	187	76	0	302	207	0	0	0	24	0	77	873
	7:15 AM	0	289	237	0	184	231	0	0	0	18	0	100	1,059
	7:30 AM	0	235	200	0	102	282	0	0	0	9	0	78	906
	7:45 AM	0	238	187	0	153	195	0	0	0	12	0	112	897
	8:00 AM	0	258	160	0	123	198	0	0	0	15	0	102	856
	8:15 AM	0	245	185	0	142	163	0	0	0	15	0	91	841
	8:30 AM	0	220	175	0	95	183	0	0	0	13	0	95	781
	8:45 AM	0	193	170	0	98	107	0	0	0	14	0	121	703
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	1,865	1,390	0	1,199	1,566	0	0	0	120	0	776	6,916
	APPROACH %	0%	57%	43%	0%	43%	57%	0%	0%	0%	13%	0%	87%	
	APP/DEPART	3,255	/	2,641	2,765	/	1,319	0	/	1,390	896	/	1,566	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	949	700	0	741	915	0	0	0	63	0	367	3,735
	APPROACH %	0%	58%	42%	0%	45%	55%	0%	0%	0%	15%	0%	85%	
	PEAK HR FACTOR		0.784			0.813			0.000			0.867		0.882
	APP/DEPART	1,649	/	1,316	1,656	/	804	0	/	700	430	/	915	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	253	116	0	180	137	0	0	0	30	0	62	778
	4:15 PM	0	240	100	0	175	124	0	0	0	34	0	75	748
	4:30 PM	0	300	107	0	216	140	0	0	0	40	0	90	893
	4:45 PM	0	372	108	0	189	140	0	0	0	32	0	85	926
	5:00 PM	1	290	103	0	218	186	0	0	0	31	0	77	906
	5:15 PM	0	305	102	0	209	149	0	0	0	30	0	70	865
	5:30 PM	0	310	101	0	220	150	0	0	0	37	0	82	900
	5:45 PM	0	254	95	0	163	118	0	0	0	35	0	76	741
	VOLUMES	1	2,324	832	0	1,570	1,144	0	0	0	269	0	617	6,757
	APPROACH %	0%	74%	26%	0%	58%	42%	0%	0%	0%	30%	0%	70%	
	APP/DEPART	3,157	/	2,941	2,714	/	1,840	0	/	832	886	/	1,144	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	1	1,277	414	0	836	625	0	0	0	130	0	314	3,597
	APPROACH %	0%	75%	24%	0%	57%	43%	0%	0%	0%	29%	0%	71%	
	PEAK HR FACTOR		0.881			0.904			0.000			0.933		0.971
	APP/DEPART	1,692	/	1,591	1,461	/	967	0	/	414	444	/	625	0

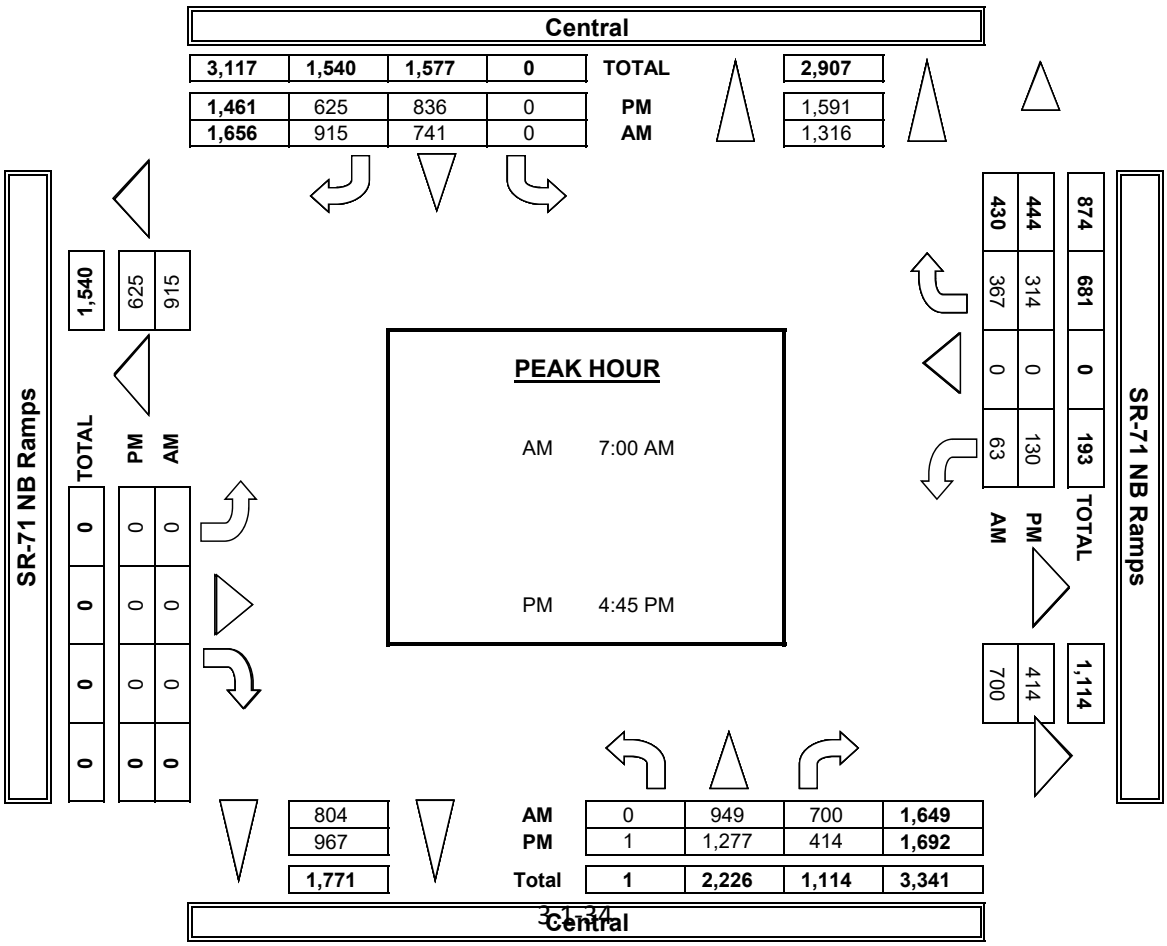
U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 1/23/19 WEDNESDAY	LOCATION:	Chino	PROJECT #:	SC2056
	NORTH & SOUTH:	Central	LOCATION #:	4
	EAST & WEST:	SR-71 NB Ramps	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Central			SOUTHBOUND Central			EASTBOUND SR-71 NB Ramps			WESTBOUND SR-71 NB Ramps			
LANES:	NL X	NT 3	NR 2	SL X	ST 3	SR 1	EL X	ET X	ER X	WL 1.5	WT X	WR 0.5	TOTAL
7:00 AM	0	179	75	0	287	192	0	0	0	23	0	70	826
7:15 AM	0	272	231	0	175	211	0	0	0	18	0	93	1,000
7:30 AM	0	225	192	0	78	266	0	0	0	9	0	74	844
7:45 AM	0	220	182	0	130	178	0	0	0	11	0	105	826
8:00 AM	0	244	155	0	107	180	0	0	0	14	0	94	794
8:15 AM	0	229	182	0	124	148	0	0	0	14	0	85	782
8:30 AM	0	205	168	0	81	168	0	0	0	13	0	91	726
8:45 AM	0	181	168	0	78	99	0	0	0	12	0	114	652
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	1,755	1,353	0	1,060	1,442	0	0	0	114	0	726	6,450
APPROACH %	0%	56%	44%	0%	42%	58%	0%	0%	0%	14%	0%	86%	
APP/DEPART	3,108	/	2,481	2,502	/	1,174	0	/	1,353	840	/	1,442	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	896	680	0	670	847	0	0	0	61	0	342	3,496
APPROACH %	0%	57%	43%	0%	44%	56%	0%	0%	0%	15%	0%	85%	
PEAK HR FACTOR		0.783			0.792			0.000			0.869		0.874
APP/DEPART	1,576	/	1,238	1,517	/	731	0	/	680	403	/	847	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	237	114	0	168	128	0	0	0	29	0	53	729
4:15 PM	0	220	100	0	167	115	0	0	0	33	0	71	706
4:30 PM	0	282	102	0	210	128	0	0	0	37	0	76	835
4:45 PM	0	353	106	0	181	136	0	0	0	29	0	79	884
5:00 PM	1	274	100	0	210	170	0	0	0	31	0	65	851
5:15 PM	0	293	98	0	202	146	0	0	0	28	0	64	831
5:30 PM	0	289	100	0	213	142	0	0	0	36	0	80	860
5:45 PM	0	241	95	0	158	113	0	0	0	35	0	72	714
VOLUMES	1	2,189	815	0	1,509	1,078	0	0	0	258	0	560	6,410
APPROACH %	0%	73%	27%	0%	58%	42%	0%	0%	0%	32%	0%	68%	
APP/DEPART	3,005	/	2,749	2,587	/	1,768	0	/	815	818	/	1,078	0
BEGIN PEAK HR		4:45 PM											
VOLUMES	0	1,209	404	0	806	594	0	0	0	124	0	288	3,426
APPROACH %	0%	75%	25%	0%	58%	42%	0%	0%	0%	30%	0%	70%	
PEAK HR FACTOR		0.879			0.921			0.000			0.888		0.969
APP/DEPART	1,614	/	1,497	1,400	/	931	0	/	404	412	/	594	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1

RTOR

NRR X	SRR X	ERR X	WRR 0
0	0	0	42
0	0	0	36
0	0	0	50
0	0	0	42
0	0	0	40
0	0	0	40
0	0	0	34
0	0	0	52
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	336
0	0	0	170
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	27
0	0	0	34
0	0	0	33
0	0	0	34
0	0	0	43
0	0	0	40
0	0	0	43
0	0	0	51
0	0	0	305
0	0	0	160

Central

NORTH SIDE

SR-71 NB Ramps WEST SIDE EAST SIDE **SR-71 NB Ramps**

SOUTH SIDE

Central

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/23/19	NORTH & SOUTH:	Central	LOCATION #:	4
WEDNESDAY	EAST & WEST:	SR-71 NB Ramps	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Central)			SOUTHBOUND (Central)			EASTBOUND (SR-71 NB Ramps)			WESTBOUND (SR-71 NB Ramps)			
	LANES:	NL X	NT 3	NR 2	SL X	ST 3	SR 1	EL X	ET X	ER X	WL 1.5	WT X	WR 0.5	TOTAL
AM	7:00 AM	0	2	1	0	11	12	0	0	0	1	0	7	34
	7:15 AM	0	6	6	0	6	12	0	0	0	0	0	5	35
	7:30 AM	0	5	8	0	17	10	0	0	0	0	0	3	43
	7:45 AM	0	8	4	0	16	12	0	0	0	1	0	3	44
	8:00 AM	0	6	5	0	12	14	0	0	0	1	0	6	44
	8:15 AM	0	7	3	0	15	10	0	0	0	1	0	3	39
	8:30 AM	0	8	5	0	13	10	0	0	0	0	0	4	40
	8:45 AM	0	6	2	0	17	5	0	0	0	1	0	4	35
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	48	34	0	107	85	0	0	0	5	0	35	314
	APPROACH %	0%	59%	41%	0%	56%	44%	0%	0%	0%	13%	0%	88%	
	APP/DEPART	82	/	83	192	/	112	0	/	34	40	/	85	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	0	26	20	0	60	46	0	0	0	3	0	15	170
	APPROACH %	0%	57%	43%	0%	57%	43%	0%	0%	0%	17%	0%	83%	
	PEAK HR FACTOR		0.885			0.946			0.000			0.643		0.966
	APP/DEPART	46	/	41	106	/	63	0	/	20	18	/	46	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	14	1	0	8	4	0	0	0	1	0	7	35
	4:15 PM	0	16	0	0	6	2	0	0	0	1	0	3	28
	4:30 PM	0	10	5	0	2	3	0	0	0	3	0	12	35
	4:45 PM	0	11	2	0	3	1	0	0	0	3	0	6	26
	5:00 PM	0	8	3	0	7	10	0	0	0	0	0	7	35
	5:15 PM	0	6	4	0	3	1	0	0	0	2	0	4	20
	5:30 PM	0	9	1	0	4	0	0	0	0	0	0	2	16
	5:45 PM	0	5	0	0	3	2	0	0	0	0	0	2	12
	VOLUMES	0	79	16	0	36	23	0	0	0	10	0	43	207
	APPROACH %	0%	83%	17%	0%	61%	39%	0%	0%	0%	19%	0%	81%	
	APP/DEPART	95	/	122	59	/	46	0	/	16	53	/	23	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	45	10	0	18	16	0	0	0	7	0	28	124
	APPROACH %	0%	82%	18%	0%	53%	47%	0%	0%	0%	20%	0%	80%	
	PEAK HR FACTOR		0.859			0.500			0.000			0.583		0.886
	APP/DEPART	55	/	73	34	/	25	0	/	10	35	/	16	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR 0
0	0	0	4
0	0	0	2
0	0	0	2
0	0	0	1
0	0	0	4
0	0	0	1
0	0	0	2
0	0	0	2
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	18
0	0	0	8
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	3
0	0	0	2
0	0	0	6
0	0	0	3
0	0	0	6
0	0	0	3
0	0	0	1
0	0	0	1
0	0	0	25
0	0	0	17

Central

NORTH SIDE

SR-71 NB Ramps WEST SIDE EAST SIDE **SR-71 NB Ramps**

SOUTH SIDE

Central

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/23/19	NORTH & SOUTH:	Central	LOCATION #:	4
WEDNESDAY	EAST & WEST:	SR-71 NB Ramps	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Central			SOUTHBOUND Central			EASTBOUND SR-71 NB Ramps			WESTBOUND SR-71 NB Ramps			
	LANES:	NL X	NT 3	NR 2	SL X	ST 3	SR 1	EL X	ET X	ER X	WL 1.5	WT X	WR 0.5	TOTAL
AM	7:00 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
	7:15 AM	0	2	0	0	1	3	0	0	0	0	0	1	7
	7:30 AM	0	0	0	0	2	2	0	0	0	0	0	0	4
	7:45 AM	0	1	0	0	3	0	0	0	0	0	0	0	4
	8:00 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
	8:15 AM	0	0	0	0	1	0	0	0	0	0	0	1	2
	8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
	8:45 AM	0	0	0	0	1	0	0	0	0	0	0	1	2
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	4	0	0	12	5	0	0	0	0	0	3	24
	APPROACH %	0%	100%	0%	0%	71%	29%	0%	0%	0%	0%	0%	100%	
	APP/DEPART	4	/	7	17	/	12	0	/	0	3	/	5	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	3	0	0	8	5	0	0	0	0	0	1	17
	APPROACH %	0%	100%	0%	0%	62%	38%	0%	0%	0%	0%	0%	100%	
	PEAK HR FACTOR		0.375			0.813			0.000			0.250		0.607
	APP/DEPART	3	/	4	13	/	8	0	/	0	1	/	5	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	4:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	2
	4:30 PM	0	2	0	0	2	0	0	0	0	0	0	0	4
	4:45 PM	0	3	0	0	4	0	0	0	0	0	0	0	7
	5:00 PM	0	4	0	0	1	0	0	0	0	0	0	2	7
	5:15 PM	0	1	0	0	3	0	0	0	0	0	0	1	5
	5:30 PM	0	1	0	0	2	0	0	0	0	1	0	0	4
	5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	VOLUMES	0	14	0	0	12	1	0	0	0	1	0	3	31
	APPROACH %	0%	100%	0%	0%	92%	8%	0%	0%	0%	25%	0%	75%	
	APP/DEPART	14	/	17	13	/	13	0	/	0	4	/	1	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	0	9	0	0	10	0	0	0	0	1	0	3	23
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	25%	0%	75%	
	PEAK HR FACTOR		0.563			0.625			0.000			0.500		0.821
	APP/DEPART	9	/	12	10	/	11	0	/	0	4	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR 0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	2
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

Central

NORTH SIDE

SR-71 NB Ramps WEST SIDE EAST SIDE **SR-71 NB Ramps**

SOUTH SIDE

Central

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/23/19	NORTH & SOUTH:	Central	LOCATION #:	4
WEDNESDAY	EAST & WEST:	SR-71 NB Ramps	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

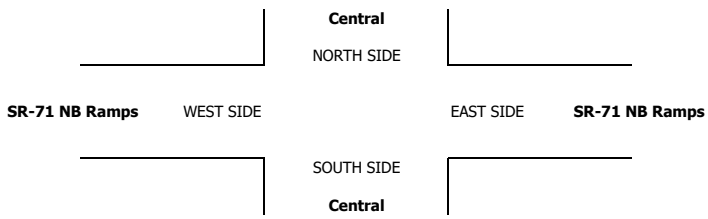
NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND Central			SOUTHBOUND Central			EASTBOUND SR-71 NB Ramps			WESTBOUND SR-71 NB Ramps			
	LANES:	NL X	NT 3	NR 2	SL X	ST 3	SR 1	EL X	ET X	ER X	WL 1.5	WT X	WR 0.5	TOTAL
AM	7:00 AM	0	6	0	0	1	3	0	0	0	0	0	0	10
	7:15 AM	0	6	0	0	0	5	0	0	0	0	0	1	12
	7:30 AM	0	3	0	0	3	4	0	0	0	0	0	1	11
	7:45 AM	0	5	1	0	3	3	0	0	0	0	0	4	16
	8:00 AM	0	5	0	0	1	4	0	0	0	0	0	2	12
	8:15 AM	0	7	0	0	1	4	0	0	0	0	0	1	13
	8:30 AM	0	5	2	0	1	5	0	0	0	0	0	0	13
	8:45 AM	0	4	0	0	2	3	0	0	0	1	0	0	10
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	41	3	0	12	31	0	0	0	1	0	9	97
	APPROACH %	0%	93%	7%	0%	28%	72%	0%	0%	0%	10%	0%	90%	
	APP/DEPART	44	/	50	43	/	13	0	/	3	10	/	31	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	0	22	3	0	6	16	0	0	0	0	0	7	54
	APPROACH %	0%	88%	12%	0%	27%	73%	0%	0%	0%	0%	0%	100%	
	PEAK HR FACTOR		0.893			0.917			0.000			0.438		0.844
	APP/DEPART	25	/	29	22	/	6	0	/	3	7	/	16	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	3	5	0	0	0	0	0	1	9
	4:15 PM	0	3	0	0	1	5	0	0	0	0	0	1	10
	4:30 PM	0	5	0	0	1	9	0	0	0	0	0	2	17
	4:45 PM	0	4	0	0	1	3	0	0	0	0	0	0	8
	5:00 PM	0	4	0	0	0	6	0	0	0	0	0	3	13
	5:15 PM	0	4	0	0	0	2	0	0	0	0	0	1	7
	5:30 PM	0	10	0	0	1	8	0	0	0	0	0	0	19
	5:45 PM	0	7	0	0	2	3	0	0	0	0	0	2	14
	VOLUMES	0	37	0	0	9	41	0	0	0	0	0	10	97
	APPROACH %	0%	100%	0%	0%	18%	82%	0%	0%	0%	0%	0%	100%	
	APP/DEPART	37	/	47	50	/	9	0	/	0	10	/	41	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	0	25	0	0	3	19	0	0	0	0	0	6	53
	APPROACH %	0%	100%	0%	0%	14%	86%	0%	0%	0%	0%	0%	100%	
	PEAK HR FACTOR		0.625			0.611			0.000			0.500		0.697
	APP/DEPART	25	/	31	22	/	3	0	/	0	6	/	19	0

U-TURNS					
	NB	SB	EB	WB	TTL
AM	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
PM	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0

RTOR			
NRR X	SRR X	ERR X	WRR 0
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	1
0	0	0	1
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	4
0	0	0	3
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	3
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	6
0	0	0	4



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/23/19	NORTH & SOUTH:	Central	LOCATION #:	4
WEDNESDAY	EAST & WEST:	SR-71 NB Ramps	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Central			SOUTHBOUND Central			EASTBOUND SR-71 NB Ramps			WESTBOUND SR-71 NB Ramps			
	LANES:	NL X	NT 3	NR 2	SL X	ST 3	SR 1	EL X	ET X	ER X	WL 1.5	WT X	WR 0.5	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		3:00 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/23/19	NORTH & SOUTH:	Central	LOCATION #:	4
WEDNESDAY	EAST & WEST:	SR-71 NB Ramps	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

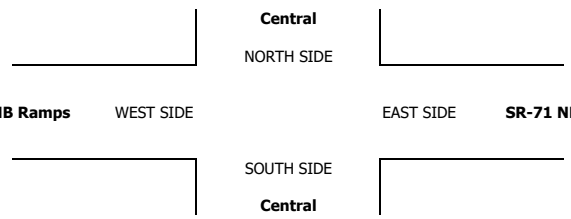
		NORTHBOUND Central			SOUTHBOUND Central			EASTBOUND SR-71 NB Ramps			WESTBOUND SR-71 NB Ramps			
	LANES:	NL X	NT 3	NR 2	SL X	ST 3	SR 1	EL X	ET X	ER X	WL 1.5	WT X	WR 0.5	TOTAL
AM	7:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	7:15 AM	0	3	0	0	2	0	0	0	0	0	0	0	5
	7:30 AM	0	2	0	0	2	0	0	0	0	0	0	0	4
	7:45 AM	0	4	0	0	1	2	0	0	0	0	0	0	7
	8:00 AM	0	3	0	0	1	0	0	0	0	0	0	0	4
	8:15 AM	0	2	0	0	1	1	0	0	0	0	0	1	5
	8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
	8:45 AM	0	2	0	0	0	0	0	0	0	0	0	2	4
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	17	0	0	8	3	0	0	0	0	0	3	31
	APPROACH %	0%	100%	0%	0%	73%	27%	0%	0%	0%	0%	0%	100%	
	APP/DEPART	17	/	20	11	/	8	0	/	0	3	/	3	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	11	0	0	5	3	0	0	0	0	0	1	20
	APPROACH %	0%	100%	0%	0%	63%	38%	0%	0%	0%	0%	0%	100%	
	PEAK HR FACTOR		0.688			0.667			0.000			0.250		0.714
	APP/DEPART	11	/	12	8	/	5	0	/	0	1	/	3	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	1	1	0	1	0	0	0	0	0	0	1	4
	4:15 PM	0	0	0	0	1	1	0	0	0	0	0	0	2
	4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
	4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
	5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	5	1	0	4	1	0	0	0	0	0	1	12
	APPROACH %	0%	83%	17%	0%	80%	20%	0%	0%	0%	0%	0%	100%	
	APP/DEPART	6	/	6	5	/	4	0	/	1	1	/	1	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	3	1	0	3	1	0	0	0	0	0	1	9
	APPROACH %	0%	75%	25%	0%	75%	25%	0%	0%	0%	0%	0%	100%	
	PEAK HR FACTOR		0.500			0.500			0.000			0.250		0.563
	APP/DEPART	4	/	4	4	/	3	0	/	1	1	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR 0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
Wed, Jan 23, 19	NORTH & SOUTH:	SR-71 NB Ramps	LOCATION #:	5
	EAST & WEST:	Pine	CONTROL:	STOP ALL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

Add U-Turns to Left Turns

		NORTHBOUND (SR-71 NB Ramps)			SOUTHBOUND (SR-71 NB Ramps)			EASTBOUND (Pine)			WESTBOUND (Pine)			
	LANES:	NL 1.5	NT 0.5	NR X	SL X	ST X	SR X	EL 2	ET X	ER X	WL X	WT X	WR X	TOTAL
AM	7:00 AM	20	1	0	0	0	0	121	0	0	0	0	0	142
	7:15 AM	15	2	0	0	0	0	128	0	0	0	0	0	145
	7:30 AM	4	0	0	0	0	0	90	0	0	0	0	0	94
	7:45 AM	19	2	0	0	0	0	96	0	0	0	0	0	117
	8:00 AM	8	0	0	0	0	0	94	0	0	0	0	0	102
	8:15 AM	13	0	0	0	0	0	81	0	0	0	0	0	94
	8:30 AM	18	1	0	0	0	0	106	0	0	0	0	0	125
	8:45 AM	15	0	0	0	0	0	83	0	0	0	0	0	98
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	112	6	0	0	0	0	799	0	0	0	0	0	917
	APPROACH %	95%	5%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	
	APP/DEPART	118	/	803	0	/	0	799	/	0	0	/	114	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	58	5	0	0	0	0	435	0	0	0	0	0	498
	APPROACH %	92%	8%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.750			0.000			0.850			0.000		0.859
	APP/DEPART	63	/	439	0	/	0	435	/	0	0	/	59	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	19	0	0	0	0	0	59	0	0	0	0	0	78
	4:15 PM	27	0	0	0	0	0	65	0	0	0	0	0	92
	4:30 PM	17	1	0	0	0	0	63	0	0	0	0	0	81
	4:45 PM	14	1	0	0	0	0	74	0	0	0	0	0	89
	5:00 PM	29	0	0	0	0	0	92	0	0	0	0	0	121
	5:15 PM	28	1	0	0	0	0	84	0	0	0	0	0	113
	5:30 PM	16	2	0	0	0	0	68	0	0	0	0	0	86
	5:45 PM	35	0	0	0	0	0	63	0	0	0	0	0	98
	VOLUMES	185	5	0	0	0	0	568	0	0	0	0	0	758
	APPROACH %	97%	3%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	
	APP/DEPART	190	/	561	0	/	0	568	/	0	0	/	197	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	108	3	0	0	0	0	307	0	0	0	0	0	418
	APPROACH %	97%	3%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.793			0.000			0.834			0.000		0.864
	APP/DEPART	111	/	301	0	/	0	307	/	0	0	/	117	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	2	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	2	0	2
0	0	1	0	1
0	0	5	0	5
0	0	1	0	1
0	0	2	0	2
0	0	1	0	1
0	0	12	0	12
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

SR-71 NB Ramps

NORTH SIDE

Pine WEST SIDE — EAST SIDE **Pine**

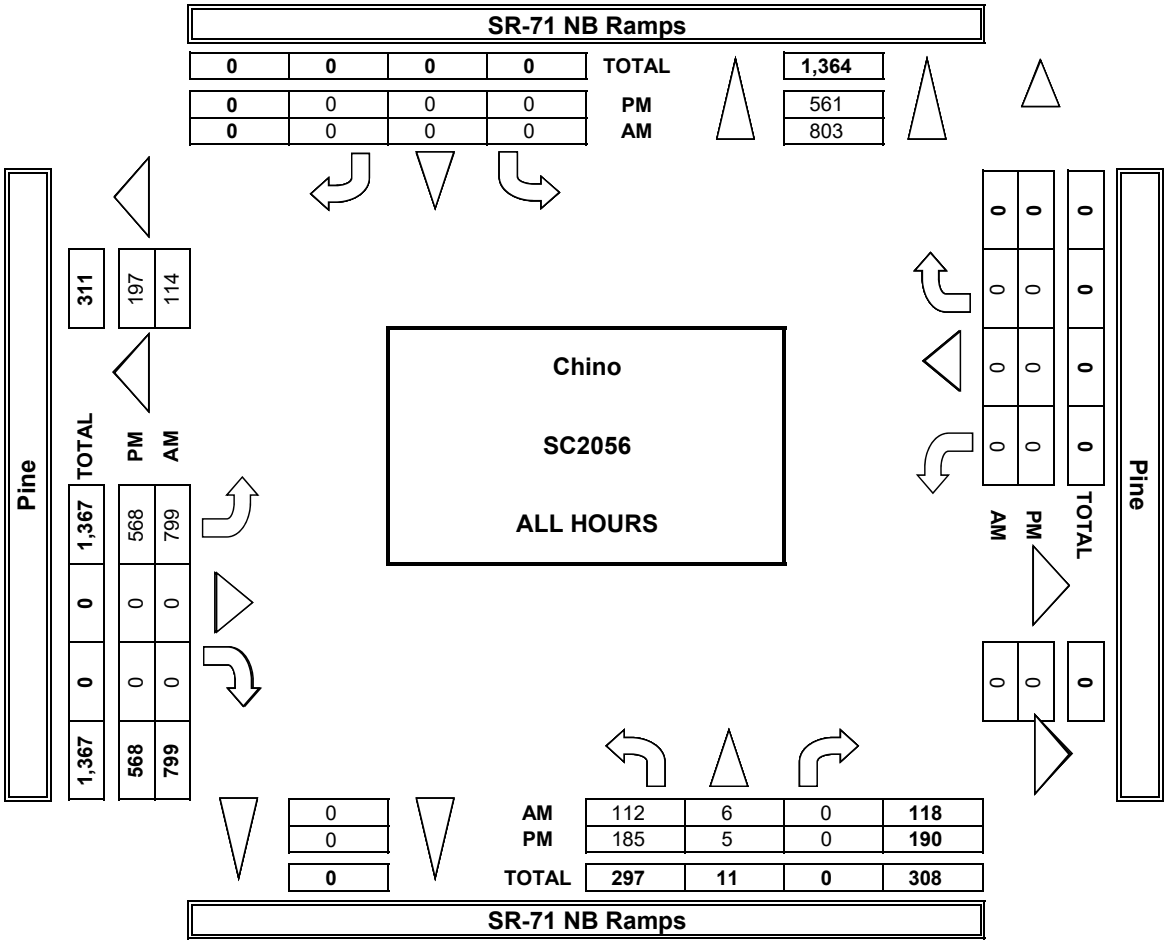
SOUTH SIDE

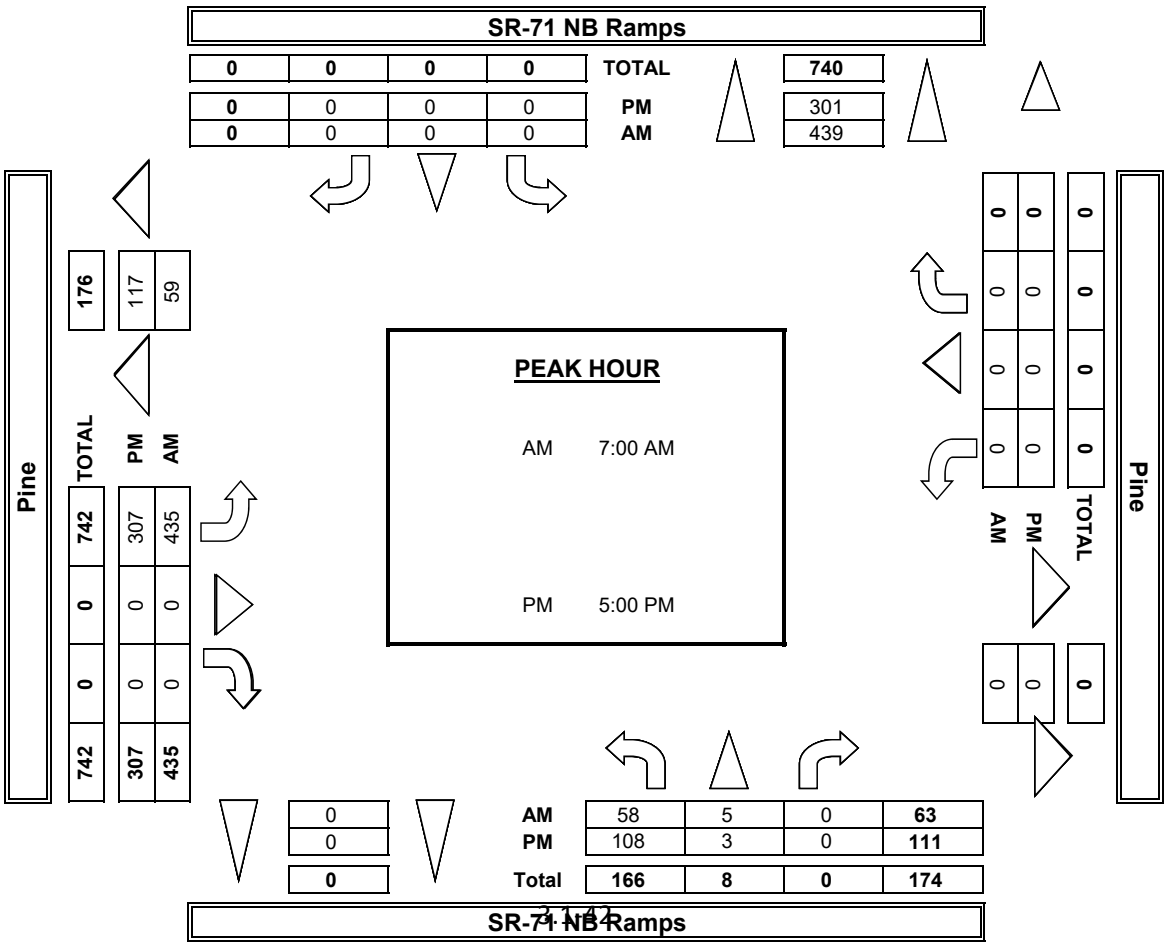
SR-71 NB Ramps

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/23/19	NORTH & SOUTH:	SR-71 NB Ramps	LOCATION #:	5
WEDNESDAY	EAST & WEST:	Pine	CONTROL:	STOP ALL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

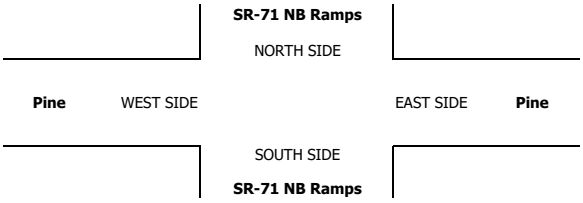
		NORTHBOUND (SR-71 NB Ramps)			SOUTHBOUND (SR-71 NB Ramps)			EASTBOUND (Pine)			WESTBOUND (Pine)			
	LANES:	NL 1.5	NT 0.5	NR X	SL X	ST X	SR X	EL 2	ET X	ER X	WL X	WT X	WR X	TOTAL
AM	7:00 AM	20	0	0	0	0	0	118	0	0	0	0	0	138
	7:15 AM	14	2	0	0	0	0	126	0	0	0	0	0	142
	7:30 AM	3	0	0	0	0	0	89	0	0	0	0	0	92
	7:45 AM	19	2	0	0	0	0	92	0	0	0	0	0	113
	8:00 AM	8	0	0	0	0	0	91	0	0	0	0	0	99
	8:15 AM	11	0	0	0	0	0	80	0	0	0	0	0	91
	8:30 AM	17	0	0	0	0	0	105	0	0	0	0	0	122
	8:45 AM	13	0	0	0	0	0	78	0	0	0	0	0	91
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	105	4	0	0	0	0	779	0	0	0	0	0	888
	APPROACH %	96%	4%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	
	APP/DEPART	109	/	782	0	/	0	779	/	0	0	/	106	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	56	4	0	0	0	0	424	0	0	0	0	0	485
	APPROACH %	93%	7%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.714			0.000			0.843			0.000		0.854
	APP/DEPART	60	/	428	0	/	0	425	/	0	0	/	57	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	18	0	0	0	0	0	54	0	0	0	0	0	72
	4:15 PM	27	0	0	0	0	0	63	0	0	0	0	0	90
	4:30 PM	16	0	0	0	0	0	58	0	0	0	0	0	74
	4:45 PM	13	1	0	0	0	0	71	0	0	0	0	0	85
	5:00 PM	25	0	0	0	0	0	91	0	0	0	0	0	116
	5:15 PM	28	1	0	0	0	0	81	0	0	0	0	0	110
	5:30 PM	16	2	0	0	0	0	66	0	0	0	0	0	84
	5:45 PM	35	0	0	0	0	0	61	0	0	0	0	0	96
	VOLUMES	178	4	0	0	0	0	545	0	0	0	0	0	727
	APPROACH %	98%	2%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	
	APP/DEPART	182	/	537	0	/	0	545	/	0	0	/	190	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	104	3	0	0	0	0	290	0	0	0	0	0	406
	APPROACH %	97%	3%	0%	0%	0%	0%	97%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.764			0.000			0.821			0.000		0.875
	APP/DEPART	107	/	293	0	/	0	299	/	0	0	/	113	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	2	0	2
0	0	1	0	1
0	0	5	0	5
0	0	1	0	1
0	0	2	0	2
0	0	1	0	1
0	0	12	0	12
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/23/19	NORTH & SOUTH:	SR-71 NB Ramps	LOCATION #:	5
WEDNESDAY	EAST & WEST:	Pine	CONTROL:	STOP ALL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

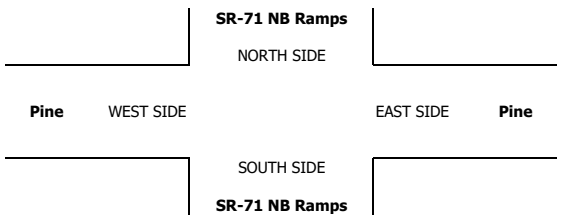
	NORTHBOUND SR-71 NB Ramps			SOUTHBOUND SR-71 NB Ramps			EASTBOUND Pine			WESTBOUND Pine			
LANES:	NL 1.5	NT 0.5	NR X	SL X	ST X	SR X	EL 2	ET X	ER X	WL X	WT X	WR X	TOTAL
7:00 AM	0	1	0	0	0	0	2	0	0	0	0	0	3
7:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	1	0	0	0	0	0	1	0	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	3	0	0	0	0	0	3
8:15 AM	2	0	0	0	0	0	1	0	0	0	0	0	3
8:30 AM	1	0	0	0	0	0	1	0	0	0	0	0	2
8:45 AM	1	0	0	0	0	0	4	0	0	0	0	0	5
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	6	1	0	0	0	0	12	0	0	0	0	0	19
APPROACH %	86%	14%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	
APP/DEPART	7	/	12	0	/	0	12	/	0	0	/	7	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	4	0	0	0	0	0	8	0	0	0	0	0	13
APPROACH %	100%	0%	0%	0%	0%	0%	89%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.500			0.000			0.563			0.000		0.650
APP/DEPART	4	/	8	0	/	0	9	/	0	0	/	5	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	1	0	0	0	0	0	5	0	0	0	0	0	6
4:15 PM	0	0	0	0	0	0	2	0	0	0	0	0	2
4:30 PM	1	1	0	0	0	0	4	0	0	0	0	0	6
4:45 PM	1	0	0	0	0	0	3	0	0	0	0	0	4
5:00 PM	4	0	0	0	0	0	1	0	0	0	0	0	5
5:15 PM	0	0	0	0	0	0	3	0	0	0	0	0	3
5:30 PM	0	0	0	0	0	0	2	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	2	0	0	0	0	0	2
VOLUMES	7	1	0	0	0	0	22	0	0	0	0	0	30
APPROACH %	88%	13%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	
APP/DEPART	8	/	23	0	/	0	22	/	0	0	/	7	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	6	1	0	0	0	0	11	0	0	0	0	0	18
APPROACH %	86%	14%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.438			0.000			0.550			0.000		0.750
APP/DEPART	7	/	12	0	/	0	11	/	0	0	/	6	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/23/19	NORTH & SOUTH:	SR-71 NB Ramps	LOCATION #:	5
WEDNESDAY	EAST & WEST:	Pine	CONTROL:	STOP ALL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND SR-71 NB Ramps			SOUTHBOUND SR-71 NB Ramps			EASTBOUND Pine			WESTBOUND Pine			
	LANES:	NL 1.5	NT 0.5	NR X	SL X	ST X	SR X	EL 2	ET X	ER X	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
	8:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	1	1	0	0	0	0	0	0	0	0	0	0	2
	APPROACH %	50%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	2	/	1	0	/	0	0	/	0	0	/	1	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	1	1	0	0	0	0	0	0	0	0	0	0	2
	APPROACH %	50%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.500			0.000			0.000			0.000		0.500
	APP/DEPART	2	/	1	0	/	0	0	/	0	0	/	1	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	1	0	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	1	0	/	0	1	/	0	0	/	0	0
	BEGIN PEAK HR		3:45 PM											
	VOLUMES	0	0	0	0	0	0	1	0	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.250			0.000		0.250
	APP/DEPART	0	/	1	0	/	0	1	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/23/19	NORTH & SOUTH:	SR-71 NB Ramps	LOCATION #:	5
WEDNESDAY	EAST & WEST:	Pine	CONTROL:	STOP ALL

CLASS 4:	NOTES:
4 OR MORE AXLE TRUCKS	

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND SR-71 NB Ramps			SOUTHBOUND SR-71 NB Ramps			EASTBOUND Pine			WESTBOUND Pine			
	LANES:	NL 1.5	NT 0.5	NR X	SL X	ST X	SR X	EL 2	ET X	ER X	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	3	0	0	0	0	0	3
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	4	0	0	0	0	0	4
	APPROACH %	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	4	0	/	0	4	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	4	0	0	0	0	0	4
	APPROACH %	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.333			0.000		0.333
	APP/DEPART	0	/	4	0	/	0	4	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		3:00 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/23/19	NORTH & SOUTH:	SR-71 NB Ramps	LOCATION #:	5
WEDNESDAY	EAST & WEST:	Pine	CONTROL:	STOP ALL

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND SR-71 NB Ramps			SOUTHBOUND SR-71 NB Ramps			EASTBOUND Pine			WESTBOUND Pine			
	LANES:	NL 1.5	NT 0.5	NR X	SL X	ST X	SR X	EL 2	ET X	ER X	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		3:00 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/23/19	NORTH & SOUTH:	SR-71 NB Ramps	LOCATION #:	5
WEDNESDAY	EAST & WEST:	Pine	CONTROL:	STOP ALL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

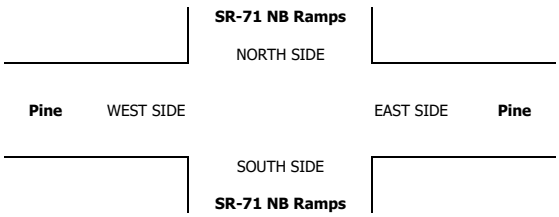
		NORTHBOUND SR-71 NB Ramps			SOUTHBOUND SR-71 NB Ramps			EASTBOUND Pine			WESTBOUND Pine			
	LANES:	NL 1.5	NT 0.5	NR X	SL X	ST X	SR X	EL 2	ET X	ER X	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
	7:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	4	0	0	0	0	0	4
	APPROACH %	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	4	0	/	0	4	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	3	0	0	0	0	0	3
	APPROACH %	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.750			0.000		0.750
	APP/DEPART	0	/	3	0	/	0	3	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		3:00 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
Tue, Jan 22, 19	NORTH & SOUTH:	SR-71 NB Ramps	LOCATION #:	6
	EAST & WEST:	Euclid	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

Add U-Turns to Left Turns

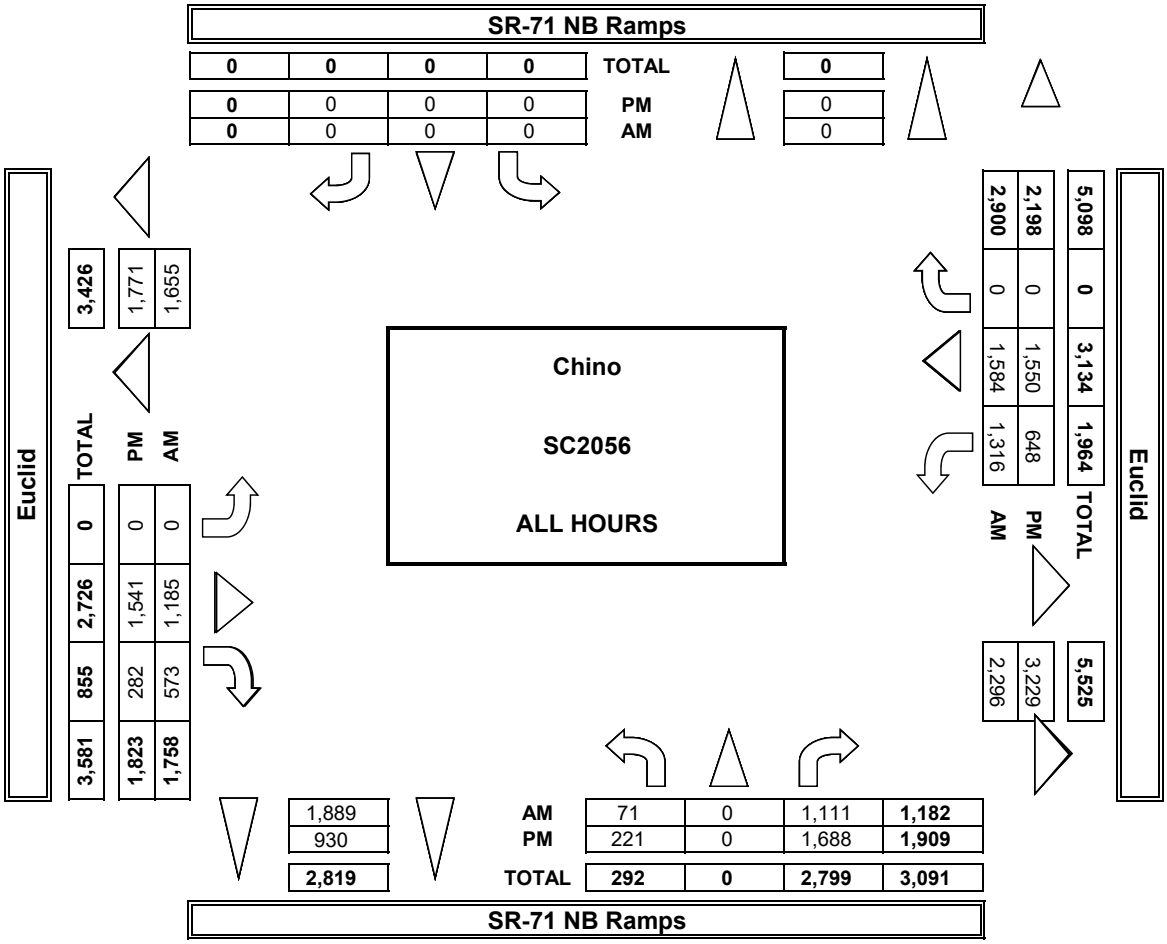
		NORTHBOUND (SR-71 NB Ramps)			SOUTHBOUND (SR-71 NB Ramps)			EASTBOUND (Euclid)			WESTBOUND (Euclid)			
	LANES:	NL 2	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 1	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	5	0	123	0	0	0	0	147	79	143	247	0	744
	7:15 AM	6	0	158	0	0	0	0	146	51	164	215	0	740
	7:30 AM	9	0	142	0	0	0	0	156	58	168	227	0	760
	7:45 AM	10	0	144	0	0	0	0	163	69	170	189	0	745
	8:00 AM	9	0	137	0	0	0	0	118	80	175	190	0	709
	8:15 AM	12	0	133	0	0	0	0	172	77	181	232	0	807
	8:30 AM	8	0	148	0	0	0	0	169	93	167	140	0	725
	8:45 AM	12	0	126	0	0	0	0	114	66	148	144	0	610
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	71	0	1,111	0	0	0	0	1,185	573	1,316	1,584	0	5,840
	APPROACH %	6%	0%	94%	0%	0%	0%	0%	67%	33%	45%	55%	0%	
	APP/DEPART	1,182	/	0	0	/	1,889	1,758	/	2,296	2,900	/	1,655	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	40	0	556	0	0	0	0	609	284	694	838	0	3,021
	APPROACH %	7%	0%	93%	0%	0%	0%	0%	68%	32%	45%	55%	0%	
	PEAK HR FACTOR		0.968			0.000			0.897			0.927		0.936
	APP/DEPART	596	/	0	0	/	978	893	/	1,165	1,532	/	878	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	31	0	208	0	0	0	0	170	27	95	147	0	678
	4:15 PM	22	0	191	0	0	0	0	191	37	78	175	0	694
	4:30 PM	23	0	240	0	0	0	0	187	42	71	176	0	739
	4:45 PM	26	0	204	0	0	0	0	222	30	69	227	0	778
	5:00 PM	28	0	220	0	0	0	0	192	29	79	197	0	745
	5:15 PM	15	0	182	0	0	0	0	171	38	81	174	0	661
	5:30 PM	33	0	207	0	0	0	0	200	33	68	210	0	751
	5:45 PM	43	0	236	0	0	0	0	208	46	107	244	0	884
	VOLUMES	221	0	1,688	0	0	0	0	1,541	282	648	1,550	0	5,930
	APPROACH %	12%	0%	88%	0%	0%	0%	0%	85%	15%	29%	71%	0%	
	APP/DEPART	1,909	/	0	0	/	930	1,823	/	3,229	2,198	/	1,771	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	119	0	845	0	0	0	0	771	146	335	825	0	3,041
	APPROACH %	12%	0%	88%	0%	0%	0%	0%	84%	16%	29%	71%	0%	
	PEAK HR FACTOR		0.864			0.000			0.903			0.826		0.860
	APP/DEPART	964	/	0	0	/	481	917	/	1,616	1,160	/	944	0

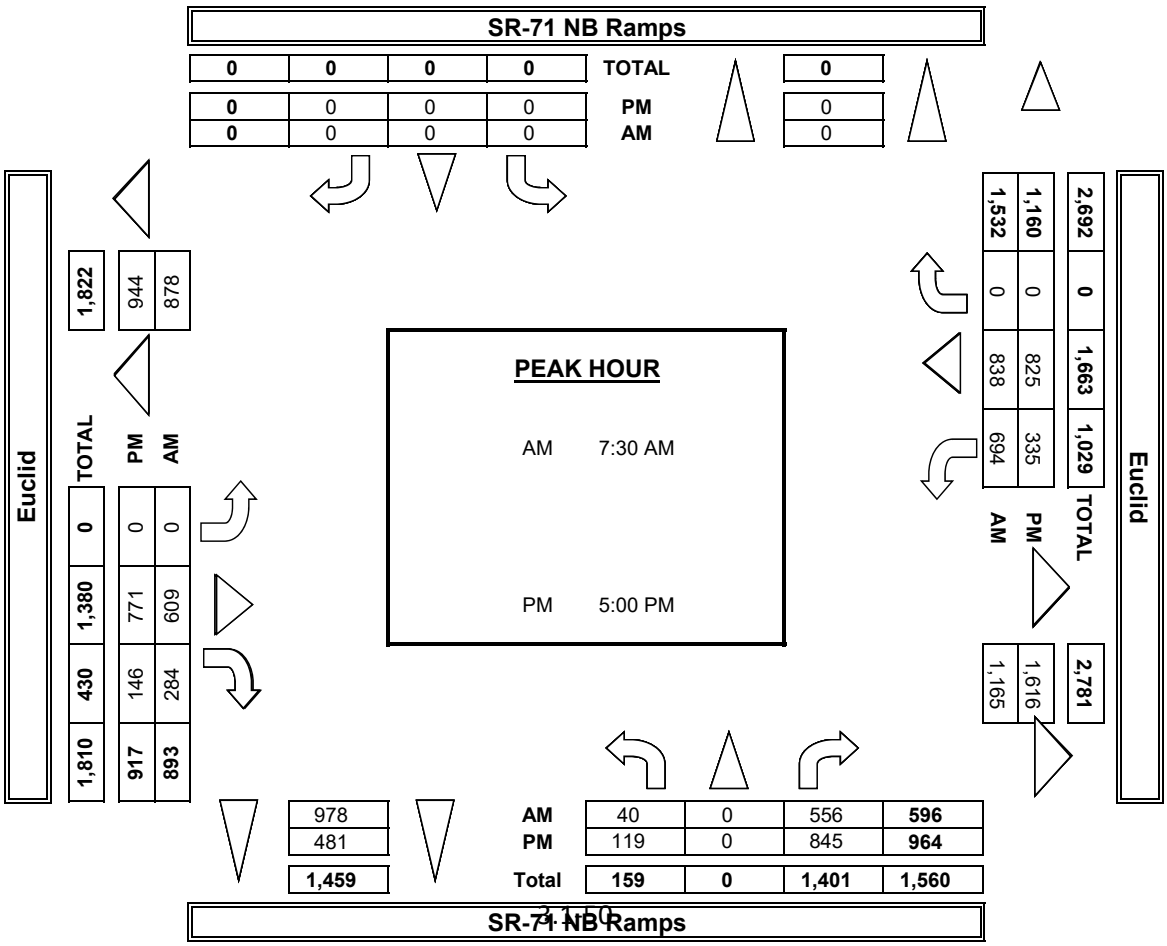
U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/22/19	NORTH & SOUTH:	SR-71 NB Ramps	LOCATION #:	6
TUESDAY	EAST & WEST:	Euclid	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

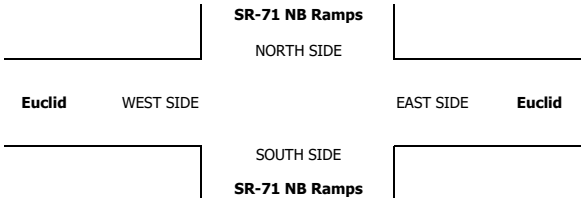
		NORTHBOUND (SR-71 NB Ramps)			SOUTHBOUND (SR-71 NB Ramps)			EASTBOUND (Euclid)			WESTBOUND (Euclid)			
	LANES:	NL 2	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 1	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	5	0	114	0	0	0	0	136	77	140	225	0	697
	7:15 AM	3	0	143	0	0	0	0	133	49	160	201	0	689
	7:30 AM	9	0	125	0	0	0	0	148	58	155	200	0	695
	7:45 AM	8	0	134	0	0	0	0	152	69	152	170	0	685
	8:00 AM	9	0	127	0	0	0	0	110	76	157	172	0	651
	8:15 AM	9	0	114	0	0	0	0	158	76	176	213	0	746
	8:30 AM	8	0	135	0	0	0	0	150	89	160	129	0	671
	8:45 AM	10	0	113	0	0	0	0	101	63	143	132	0	562
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	61	0	1,005	0	0	0	0	1,088	557	1,243	1,442	0	5,396
	APPROACH %	6%	0%	94%	0%	0%	0%	0%	66%	34%	46%	54%	0%	
	APP/DEPART	1,066	/	0	0	/	1,800	1,645	/	2,093	2,685	/	1,503	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	35	0	500	0	0	0	0	568	279	640	755	0	2,777
	APPROACH %	7%	0%	93%	0%	0%	0%	0%	67%	33%	46%	54%	0%	
	PEAK HR FACTOR		0.942			0.000			0.905			0.897		0.931
	APP/DEPART	535	/	0	0	/	919	847	/	1,068	1,395	/	790	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	28	0	190	0	0	0	0	156	26	89	135	0	624
	4:15 PM	18	0	167	0	0	0	0	180	37	76	160	0	638
	4:30 PM	22	0	213	0	0	0	0	174	40	65	167	0	681
	4:45 PM	26	0	193	0	0	0	0	213	30	61	210	0	733
	5:00 PM	28	0	202	0	0	0	0	185	29	74	188	0	706
	5:15 PM	15	0	172	0	0	0	0	163	37	77	166	0	630
	5:30 PM	33	0	191	0	0	0	0	197	33	64	201	0	719
	5:45 PM	42	0	224	0	0	0	0	204	46	104	233	0	853
	VOLUMES	212	0	1,552	0	0	0	0	1,472	278	610	1,460	0	5,584
	APPROACH %	12%	0%	88%	0%	0%	0%	0%	84%	16%	29%	71%	0%	
	APP/DEPART	1,764	/	0	0	/	888	1,750	/	3,024	2,070	/	1,672	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	118	0	789	0	0	0	0	749	145	319	788	0	2,908
	APPROACH %	13%	0%	87%	0%	0%	0%	0%	84%	16%	29%	71%	0%	
	PEAK HR FACTOR		0.852			0.000			0.894			0.821		0.852
	APP/DEPART	907	/	0	0	/	464	894	/	1,538	1,107	/	906	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/22/19	NORTH & SOUTH:	SR-71 NB Ramps	LOCATION #:	6
TUESDAY	EAST & WEST:	Euclid	CONTROL:	SIGNAL

CLASS 2:	NOTES:	AM / PM / MD / OTHER / OTHER
2-AXLE WORK VEHICLES/ TRUCKS		▲ N, ◄ W, E ►, S ▼

		NORTHBOUND SR-71 NB Ramps			SOUTHBOUND SR-71 NB Ramps			EASTBOUND Euclid			WESTBOUND Euclid			
	LANES:	NL 2	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 1	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	8	0	0	0	0	7	0	3	16	0	34
	7:15 AM	3	0	15	0	0	0	0	6	1	2	8	0	35
	7:30 AM	0	0	7	0	0	0	0	7	0	10	17	0	41
	7:45 AM	2	0	4	0	0	0	0	7	0	8	10	0	31
	8:00 AM	0	0	7	0	0	0	0	6	2	11	9	0	35
	8:15 AM	3	0	7	0	0	0	0	10	1	4	11	0	36
	8:30 AM	0	0	2	0	0	0	0	9	3	4	7	0	25
	8:45 AM	2	0	3	0	0	0	0	7	2	2	8	0	24
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	10	0	53	0	0	0	0	59	9	44	86	0	261
	APPROACH %	16%	0%	84%	0%	0%	0%	0%	87%	13%	34%	66%	0%	
	APP/DEPART	63	/	0	0	/	53	68	/	112	130	/	96	0
	BEGIN PEAK HR	7:30 AM												
	VOLUMES	5	0	25	0	0	0	0	30	3	33	47	0	143
	APPROACH %	17%	0%	83%	0%	0%	0%	0%	91%	9%	41%	59%	0%	
	PEAK HR FACTOR	0.750			0.000			0.750			0.741			0.872
	APP/DEPART	30	/	0	0	/	36	33	/	55	80	/	52	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	3	0	13	0	0	0	0	11	1	3	5	0	36
	4:15 PM	4	0	18	0	0	0	0	9	0	1	8	0	40
	4:30 PM	1	0	20	0	0	0	0	8	2	2	4	0	37
	4:45 PM	0	0	7	0	0	0	0	4	0	5	10	0	26
	5:00 PM	0	0	13	0	0	0	0	5	0	3	5	0	26
	5:15 PM	0	0	7	0	0	0	0	4	0	3	4	0	18
	5:30 PM	0	0	2	0	0	0	0	2	0	0	1	0	5
	5:45 PM	1	0	7	0	0	0	0	3	0	2	2	0	15
	VOLUMES	9	0	87	0	0	0	0	46	3	19	39	0	203
	APPROACH %	9%	0%	91%	0%	0%	0%	0%	94%	6%	33%	67%	0%	
	APP/DEPART	96	/	0	0	/	22	49	/	133	58	/	48	0
	BEGIN PEAK HR	4:00 PM												
	VOLUMES	8	0	58	0	0	0	0	32	3	11	27	0	139
	APPROACH %	12%	0%	88%	0%	0%	0%	0%	91%	9%	29%	71%	0%	
	PEAK HR FACTOR	0.750			0.000			0.729			0.633			0.869
	APP/DEPART	66	/	0	0	/	14	35	/	90	38	/	35	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/22/19	NORTH & SOUTH:	SR-71 NB Ramps	LOCATION #:	6
TUESDAY	EAST & WEST:	Euclid	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND SR-71 NB Ramps			SOUTHBOUND SR-71 NB Ramps			EASTBOUND Euclid			WESTBOUND Euclid			
	LANES:	NL 2	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 1	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	3	0	0	1	0	4
	7:15 AM	0	0	0	0	0	0	0	2	0	0	1	0	3
	7:30 AM	0	0	1	0	0	0	0	0	0	3	1	0	5
	7:45 AM	0	0	1	0	0	0	0	2	0	6	2	0	11
	8:00 AM	0	0	0	0	0	0	0	0	1	4	2	0	7
	8:15 AM	0	0	2	0	0	0	0	1	0	0	1	0	4
	8:30 AM	0	0	2	0	0	0	0	3	0	1	2	0	8
	8:45 AM	0	0	3	0	0	0	0	1	1	0	0	0	5
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	9	0	0	0	0	12	2	14	10	0	47
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	86%	14%	58%	42%	0%	
	APP/DEPART	9	/	0	0	/	16	14	/	21	24	/	10	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	0	0	5	0	0	0	0	6	1	11	7	0	30
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	86%	14%	61%	39%	0%	
	PEAK HR FACTOR		0.625			0.000			0.583			0.563		0.682
	APP/DEPART	5	/	0	0	/	12	7	/	11	18	/	7	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	2	0	0	0	0	1	0	1	0	0	4
	4:15 PM	0	0	2	0	0	0	0	1	0	0	1	0	4
	4:30 PM	0	0	1	0	0	0	0	2	0	1	1	0	5
	4:45 PM	0	0	0	0	0	0	0	2	0	1	0	0	3
	5:00 PM	0	0	0	0	0	0	0	2	0	0	2	0	4
	5:15 PM	0	0	0	0	0	0	0	2	0	0	1	0	3
	5:30 PM	0	0	3	0	0	0	0	1	0	0	2	0	6
	5:45 PM	0	0	2	0	0	0	0	1	0	0	2	0	5
	VOLUMES	0	0	10	0	0	0	0	12	0	3	9	0	34
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	100%	0%	25%	75%	0%	
	APP/DEPART	10	/	0	0	/	3	12	/	22	12	/	9	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	0	0	5	0	0	0	0	6	0	0	7	0	18
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.417			0.000			0.750			0.875		0.750
	APP/DEPART	5	/	0	0	/	0	6	/	11	7	/	7	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

SR-71 NB Ramps

NORTH SIDE

Euclid WEST SIDE EAST SIDE **Euclid**

SOUTH SIDE

SR-71 NB Ramps

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/22/19	NORTH & SOUTH:	SR-71 NB Ramps	LOCATION #:	6
TUESDAY	EAST & WEST:	Euclid	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND SR-71 NB Ramps			SOUTHBOUND SR-71 NB Ramps			EASTBOUND Euclid			WESTBOUND Euclid			
LANES:	NL 2	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 1	WL 1	WT 2	WR X	TOTAL
7:00 AM	0	0	1	0	0	0	0	0	1	0	4	0	6
7:15 AM	0	0	0	0	0	0	0	2	1	2	5	0	10
7:30 AM	0	0	9	0	0	0	0	1	0	0	7	0	17
7:45 AM	0	0	5	0	0	0	0	1	0	2	6	0	14
8:00 AM	0	0	3	0	0	0	0	2	0	3	6	0	14
8:15 AM	0	0	10	0	0	0	0	2	0	1	7	0	20
8:30 AM	0	0	9	0	0	0	0	6	1	2	2	0	20
8:45 AM	0	0	7	0	0	0	0	5	0	3	4	0	19
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	44	0	0	0	0	19	3	13	41	0	120
APPROACH %	0%	0%	100%	0%	0%	0%	0%	86%	14%	24%	76%	0%	
APP/DEPART	44	/	0	0	/	16	22	/	63	54	/	41	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	0	0	29	0	0	0	0	15	1	9	19	0	73
APPROACH %	0%	0%	100%	0%	0%	0%	0%	94%	6%	32%	68%	0%	
PEAK HR FACTOR		0.725			0.000			0.571			0.778		0.913
APP/DEPART	29	/	0	0	/	10	16	/	44	28	/	19	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	3	0	0	0	0	1	0	2	7	0	13
4:15 PM	0	0	4	0	0	0	0	1	0	1	6	0	12
4:30 PM	0	0	6	0	0	0	0	3	0	2	4	0	15
4:45 PM	0	0	4	0	0	0	0	2	0	2	7	0	15
5:00 PM	0	0	5	0	0	0	0	0	0	2	2	0	9
5:15 PM	0	0	2	0	0	0	0	2	1	1	3	0	9
5:30 PM	0	0	11	0	0	0	0	0	0	4	6	0	21
5:45 PM	0	0	3	0	0	0	0	0	0	1	7	0	11
VOLUMES	0	0	38	0	0	0	0	9	1	15	42	0	105
APPROACH %	0%	0%	100%	0%	0%	0%	0%	90%	10%	26%	74%	0%	
APP/DEPART	38	/	0	0	/	16	10	/	47	57	/	42	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	0	17	0	0	0	0	7	0	7	24	0	55
APPROACH %	0%	0%	100%	0%	0%	0%	0%	100%	0%	23%	77%	0%	
PEAK HR FACTOR		0.708			0.000			0.583			0.861		0.917
APP/DEPART	17	/	0	0	/	7	7	/	24	31	/	24	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/22/19	NORTH & SOUTH:	SR-71 NB Ramps	LOCATION #:	6
TUESDAY	EAST & WEST:	Euclid	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND SR-71 NB Ramps			SOUTHBOUND SR-71 NB Ramps			EASTBOUND Euclid			WESTBOUND Euclid			
	LANES:	NL 2	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 1	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	1	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	0	0	0	0	1	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.250			0.000		0.250
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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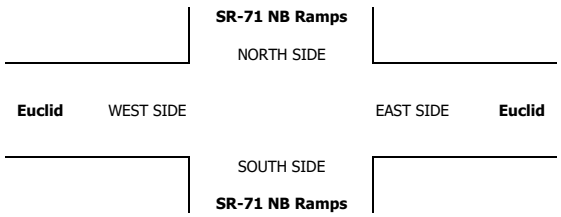
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

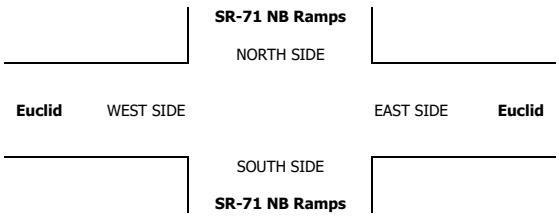
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/22/19	NORTH & SOUTH:	SR-71 NB Ramps	LOCATION #:	6
TUESDAY	EAST & WEST:	Euclid	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND SR-71 NB Ramps			SOUTHBOUND SR-71 NB Ramps			EASTBOUND Euclid			WESTBOUND Euclid				U-TURNS					RTOR			
LANES:	NL 2	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 1	WL 1	WT 2	WR X	TOTAL	NB	SB	EB	WB	TTL	NRR X	SRR X	ERR X	WRR X
AM 7:00 AM	0	0	0	0	0	0	0	1	1	0	1	0	3	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	1	0	2	1	0	4	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	7	2	2	5	0	16	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	78%	22%	29%	71%	0%										
APP/DEPART	0	/	0	0	/	4	9	/	7	7	/	5	0									
BEGIN PEAK HR		7:00 AM																				
VOLUMES	0	0	0	0	0	0	0	5	1	2	4	0	12						0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	83%	17%	33%	67%	0%										
PEAK HR FACTOR		0.000			0.000			0.500			0.500		0.750									
APP/DEPART	0	/	0	0	/	3	6	/	5	6	/	4	0									
PM 03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	1	0	0	0	0	1	0	1	0	0	3	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	100%	0%	0%	0%	0%	100%	0%	100%	0%	0%										
APP/DEPART	1	/	0	0	/	1	1	/	2	1	/	0	0									
BEGIN PEAK HR		3:45 PM																				
VOLUMES	0	0	1	0	0	0	0	0	0	1	0	0	2						0	0	0	0
APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%										
PEAK HR FACTOR		0.250			0.000			0.000			0.250		0.500									
APP/DEPART	1	/	0	0	/	1	0	/	1	1	/	0	0									



INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
Wed, Feb 6, 19	NORTH & SOUTH:	Central	LOCATION #:	7
	EAST & WEST:	El Prado	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N / ◄ W / E ► / S ▼

Add U-Turns to Left Turns

		NORTHBOUND (Central)			SOUTHBOUND (Central)			EASTBOUND (El Prado)			WESTBOUND (El Prado)			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 3	SR 0	EL 1	ET 1	ER 0	WL 1.5	WT 0.5	WR 1	TOTAL
AM	7:00 AM	0	153	104	49	201	2	1	1	0	189	3	149	852
	7:15 AM	0	188	88	48	181	2	0	0	0	190	1	106	804
	7:30 AM	2	241	124	63	123	0	0	0	1	162	0	104	820
	7:45 AM	0	209	132	74	141	6	1	4	0	166	0	121	854
	8:00 AM	0	178	128	78	149	0	0	0	0	146	3	85	767
	8:15 AM	1	167	101	60	151	9	1	0	1	118	1	104	714
	8:30 AM	2	174	102	51	137	13	3	1	0	134	0	101	718
	8:45 AM	3	172	95	32	147	6	1	0	0	80	1	99	636
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	8	1,482	874	455	1,230	38	7	6	2	1,185	9	869	6,165
	APPROACH %	0%	63%	37%	26%	71%	2%	47%	40%	13%	57%	0%	42%	
	APP/DEPART	2,364	/	2,358	1,723	/	2,418	15	/	1,335	2,063	/	54	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	2	791	448	234	646	10	2	5	1	707	4	480	3,330
	APPROACH %	0%	64%	36%	26%	73%	1%	25%	63%	13%	59%	0%	40%	
	PEAK HR FACTOR		0.845			0.883			0.400			0.873		0.975
	APP/DEPART	1,241	/	1,273	890	/	1,355	8	/	687	1,191	/	15	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	1	156	126	120	175	8	9	3	2	97	2	91	790
	4:15 PM	2	154	144	101	165	2	2	1	0	98	0	88	757
	4:30 PM	3	148	174	131	194	4	5	0	1	125	0	119	904
	4:45 PM	2	196	189	149	193	10	3	4	1	126	2	117	992
	5:00 PM	0	188	185	132	222	2	7	4	1	136	1	129	1,007
	5:15 PM	0	158	168	147	199	0	4	3	4	128	0	93	904
	5:30 PM	4	177	181	154	202	6	2	1	2	119	0	94	942
	5:45 PM	3	161	198	104	190	6	3	3	2	126	2	79	877
	VOLUMES	15	1,338	1,365	1,038	1,540	38	35	19	13	955	7	810	7,173
	APPROACH %	1%	49%	50%	40%	59%	1%	52%	28%	19%	54%	0%	46%	
	APP/DEPART	2,718	/	2,183	2,616	/	2,508	67	/	2,422	1,772	/	60	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	6	719	723	582	816	18	16	12	8	509	3	433	3,845
	APPROACH %	0%	50%	50%	41%	58%	1%	44%	33%	22%	54%	0%	46%	
	PEAK HR FACTOR		0.935			0.978			0.750			0.888		0.955
	APP/DEPART	1,448	/	1,168	1,416	/	1,333	36	/	1,317	945	/	27	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
63	0	0	59
18	1	0	48
47	0	1	46
43	2	0	60
58	0	0	41
32	0	1	48
62	0	0	52
43	2	0	51
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
366	5	2	405
171	3	1	213
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
64	2	2	52
54	1	0	50
75	1	1	67
76	2	0	68
89	0	0	71
80	0	3	55
81	0	2	51
84	1	2	42
603	7	10	456
326	2	5	245

Central

NORTH SIDE

El Prado WEST SIDE EAST SIDE **El Prado**

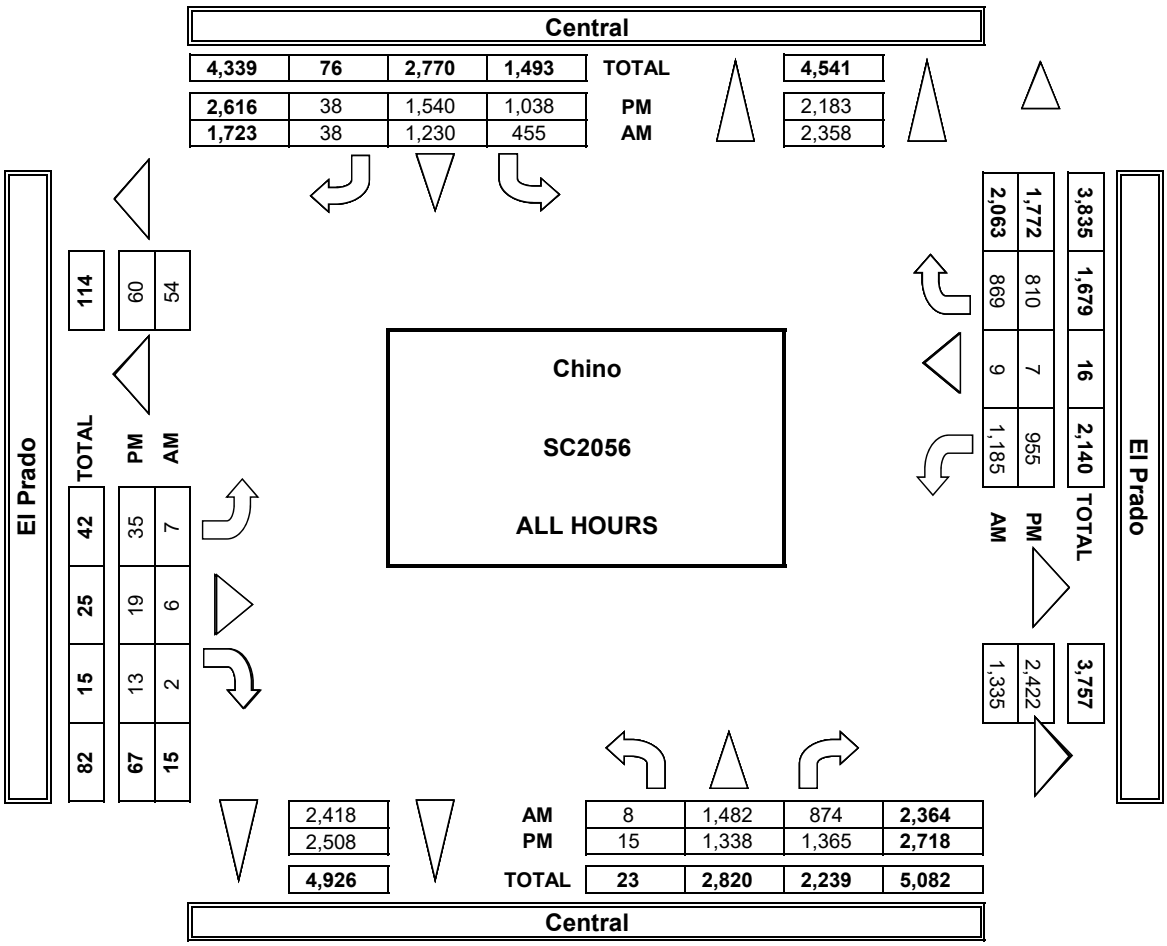
SOUTH SIDE

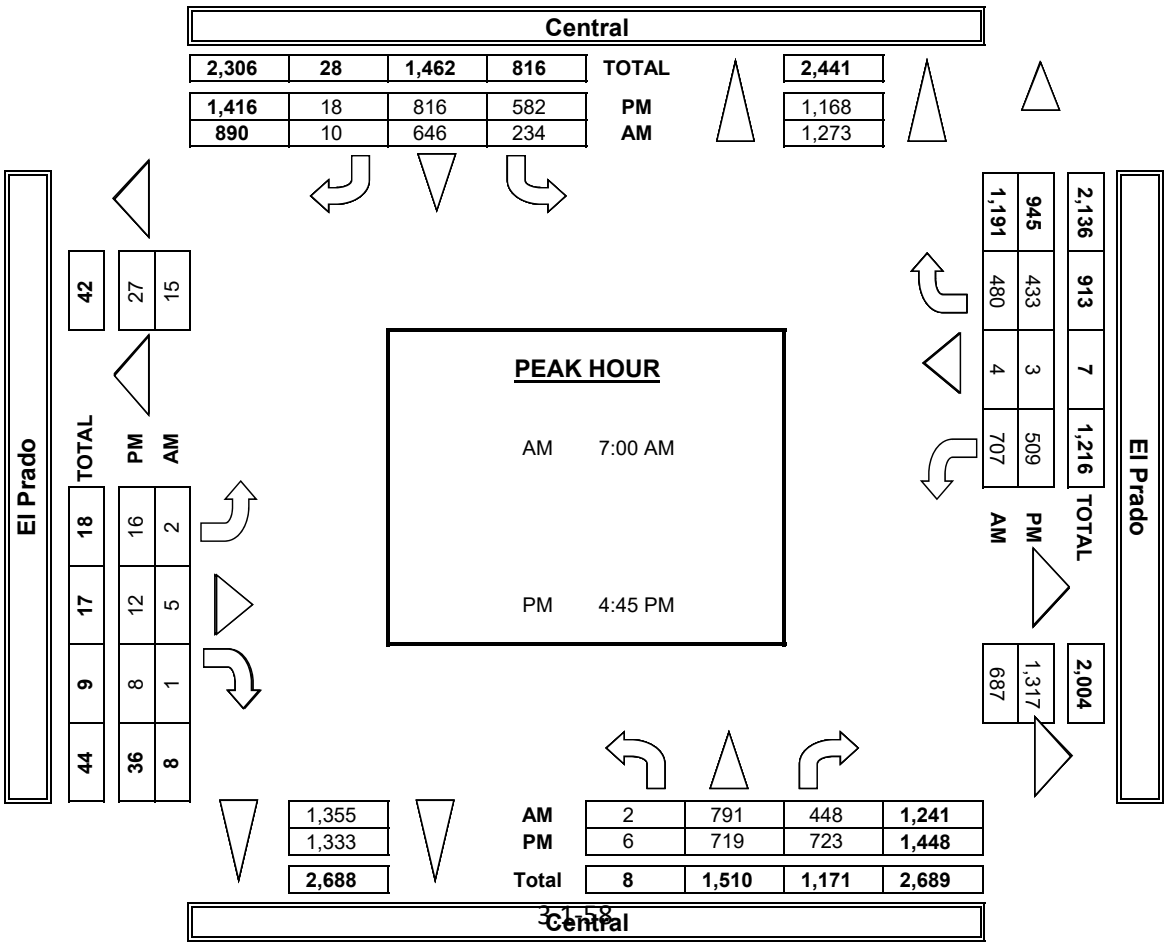
Central

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	7:45 AM	0	2	0	0	2	0	1	0	0	1	0	1	0	0	1
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	2	3	0	0	5	1	2	0	0	3	1	1	0	0	2
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	2	1	1	0	4	1	0	0	0	1	1	1	1	0	3
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	2	0	0	1	3	2	0	0	1	3	0	0	0	0	0
	5:30 PM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	5	2	1	1	9	4	0	0	1	5	1	2	1	0	4

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 2/6/19 WEDNESDAY	LOCATION:	Chino	PROJECT #:	SC2056
	NORTH & SOUTH:	Central	LOCATION #:	7
	EAST & WEST:	El Prado	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM PM MD OTHER OTHER — ▲ N, ◄ W, E ►, S ▼

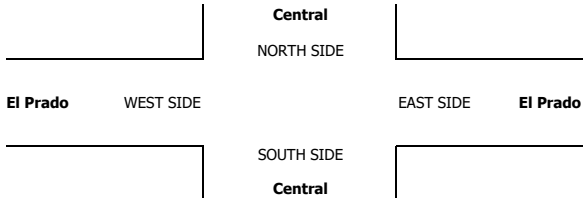
		NORTHBOUND Central			SOUTHBOUND Central			EASTBOUND El Prado			WESTBOUND El Prado			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 3	SR 0	EL 1	ET 1	ER 0	WL 1.5	WT 0.5	WR 1	TOTAL
AM	7:00 AM	0	147	95	44	181	2	1	0	0	177	3	140	790
	7:15 AM	0	180	82	45	160	2	0	0	0	180	1	96	746
	7:30 AM	2	233	108	58	105	0	0	0	1	151	0	92	750
	7:45 AM	0	197	123	73	130	6	1	4	0	158	0	113	805
	8:00 AM	0	174	116	70	127	0	0	0	0	138	3	79	707
	8:15 AM	1	159	93	51	137	9	1	0	1	112	1	95	660
	8:30 AM	2	166	100	47	119	12	3	1	0	125	0	92	667
	8:45 AM	3	160	82	27	121	6	1	0	0	69	1	91	561
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	8	1,416	799	415	1,080	37	7	5	2	1,110	9	798	5,686
	APPROACH %	0%	64%	36%	27%	70%	2%	50%	36%	14%	58%	0%	42%	
	APP/DEPART	2,223	/	2,221	1,532	/	2,193	14	/	1,219	1,917	/	53	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	1	757	408	220	576	10	2	4	1	666	4	441	3,091
	APPROACH %	0%	65%	35%	27%	71%	1%	29%	57%	14%	60%	0%	40%	
	PEAK HR FACTOR		0.851			0.888			0.350			0.868		0.960
	APP/DEPART	1,167	/	1,200	806	/	1,244	7	/	632	1,111	/	15	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	1	142	118	113	163	8	9	3	0	92	2	85	736
	4:15 PM	2	140	131	94	157	2	2	1	0	88	0	80	697
	4:30 PM	3	137	163	121	190	4	5	0	1	111	0	114	849
	4:45 PM	2	185	178	144	184	10	3	4	1	116	2	112	941
	5:00 PM	0	177	173	126	210	2	6	4	1	129	1	124	953
	5:15 PM	0	144	153	140	197	0	4	2	4	123	0	90	857
	5:30 PM	4	168	176	148	190	6	2	1	2	113	0	87	897
	5:45 PM	3	154	184	100	185	6	3	3	2	121	2	76	839
	VOLUMES	15	1,247	1,276	986	1,476	38	34	18	11	893	7	768	6,769
	APPROACH %	1%	49%	50%	39%	59%	2%	54%	29%	17%	54%	0%	46%	
	APP/DEPART	2,538	/	2,049	2,500	/	2,380	63	/	2,280	1,668	/	60	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	6	674	680	558	781	18	15	11	8	481	3	413	3,648
	APPROACH %	0%	50%	50%	41%	58%	1%	44%	32%	24%	54%	0%	46%	
	PEAK HR FACTOR		0.932			0.986			0.773			0.883		0.957
	APP/DEPART	1,360	/	1,102	1,357	/	1,270	34	/	1,249	897	/	27	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
56	0	0	56
17	1	0	43
39	0	1	39
37	2	0	56
51	0	0	38
31	0	1	44
61	0	0	48
36	2	0	48
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
328	5	2	372
149	3	1	194
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
60	2	0	50
50	1	0	44
71	1	1	65
72	2	0	65
84	0	0	67
72	0	3	54
80	0	2	48
79	1	2	39
568	7	8	432
308	2	5	234



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
2/6/19	NORTH & SOUTH:	Central	LOCATION #:	7
WEDNESDAY	EAST & WEST:	El Prado	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS	NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Central)			SOUTHBOUND (Central)			EASTBOUND (El Prado)			WESTBOUND (El Prado)			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 3	SR 0	EL 1	ET 1	ER 0	WL 1.5	WT 0.5	WR 1	TOTAL
AM	7:00 AM	0	6	1	2	16	0	0	0	0	4	0	8	37
	7:15 AM	0	3	3	1	17	0	0	0	0	3	0	6	33
	7:30 AM	0	6	9	4	13	0	0	0	0	5	0	9	46
	7:45 AM	0	7	3	1	9	0	0	0	0	6	0	3	29
	8:00 AM	0	2	7	8	19	0	0	0	0	4	0	4	44
	8:15 AM	0	4	6	6	12	0	0	0	0	4	0	7	39
	8:30 AM	0	6	1	2	16	1	0	0	0	4	0	5	35
	8:45 AM	0	8	6	3	22	0	0	0	0	3	0	7	49
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	42	36	27	124	1	0	0	0	33	0	49	312
	APPROACH %	0%	54%	46%	18%	82%	1%	0%	0%	0%	40%	0%	60%	
	APP/DEPART	78	/	91	152	/	157	0	/	63	82	/	1	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	20	20	19	69	1	0	0	0	15	0	23	167
	APPROACH %	0%	50%	50%	21%	78%	1%	0%	0%	0%	39%	0%	61%	
	PEAK HR FACTOR		0.714			0.824			0.000			0.864		0.852
	APP/DEPART	40	/	43	89	/	84	0	/	39	38	/	1	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	10	4	2	7	0	0	0	2	5	0	2	32
	4:15 PM	0	8	5	6	5	0	0	0	0	3	0	5	32
	4:30 PM	0	8	7	6	3	0	0	0	0	5	0	2	31
	4:45 PM	0	7	4	4	5	0	0	0	0	5	0	2	27
	5:00 PM	0	8	7	4	9	0	0	0	0	3	0	4	35
	5:15 PM	0	11	7	4	1	0	0	1	0	0	0	2	26
	5:30 PM	0	5	4	3	10	0	0	0	0	1	0	3	26
	5:45 PM	0	6	8	4	5	0	0	0	0	2	0	0	25
	VOLUMES	0	63	46	33	45	0	0	1	2	24	0	20	234
	APPROACH %	0%	58%	42%	42%	58%	0%	0%	33%	67%	55%	0%	45%	
	APP/DEPART	109	/	83	78	/	71	3	/	80	44	/	0	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	0	31	23	20	22	0	0	0	0	16	0	13	125
	APPROACH %	0%	57%	43%	48%	52%	0%	0%	0%	0%	55%	0%	45%	
	PEAK HR FACTOR		0.900			0.808			0.000			0.906		0.893
	APP/DEPART	54	/	44	42	/	38	0	/	43	29	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	3
1	0	0	4
4	0	0	4
3	0	0	2
5	0	0	3
1	0	0	4
1	0	0	2
4	0	0	3
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
20	0	0	25
11	0	0	12
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
22	0	2	14
10	0	0	10

Central

NORTH SIDE

El Prado WEST SIDE EAST SIDE **El Prado**

SOUTH SIDE

Central

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
2/6/19	NORTH & SOUTH:	Central	LOCATION #:	7
WEDNESDAY	EAST & WEST:	El Prado	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

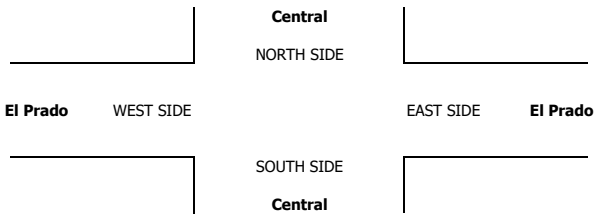
		NORTHBOUND Central			SOUTHBOUND Central			EASTBOUND El Prado			WESTBOUND El Prado			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 3	SR 0	EL 1	ET 1	ER 0	WL 1.5	WT 0.5	WR 1	TOTAL
AM	7:00 AM	0	0	0	1	4	0	0	1	0	0	0	1	7
	7:15 AM	0	1	0	0	0	0	0	0	0	3	0	2	6
	7:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	1
	7:45 AM	0	1	1	0	2	0	0	0	0	0	0	3	7
	8:00 AM	0	0	0	0	1	0	0	0	0	2	0	0	3
	8:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
	8:30 AM	0	0	0	2	1	0	0	0	0	0	0	2	5
	8:45 AM	0	0	2	2	1	0	0	0	0	1	0	1	7
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	2	3	6	9	0	0	1	0	7	0	9	37
	APPROACH %	0%	40%	60%	40%	60%	0%	0%	100%	0%	44%	0%	56%	
	APP/DEPART	5	/	11	15	/	16	1	/	10	16	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	2	1	1	6	0	0	1	0	4	0	6	21
	APPROACH %	0%	67%	33%	14%	86%	0%	0%	100%	0%	40%	0%	60%	
	PEAK HR FACTOR		0.375			0.350			0.250			0.500		0.750
	APP/DEPART	3	/	8	7	/	10	1	/	3	10	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
	4:15 PM	0	2	5	1	0	0	0	0	0	0	0	1	9
	4:30 PM	0	1	0	1	0	0	0	0	0	2	0	0	4
	4:45 PM	0	0	0	1	1	0	0	0	0	1	0	1	4
	5:00 PM	0	0	2	2	1	0	1	0	0	0	0	0	6
	5:15 PM	0	0	0	1	0	0	0	0	0	2	0	0	3
	5:30 PM	0	1	0	1	0	0	0	0	0	2	0	0	4
	5:45 PM	0	0	1	0	0	0	0	0	0	0	0	2	3
	VOLUMES	0	5	8	7	3	0	1	0	0	7	0	4	35
	APPROACH %	0%	38%	62%	70%	30%	0%	100%	0%	0%	64%	0%	36%	
	APP/DEPART	13	/	10	10	/	10	1	/	15	11	/	0	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	0	3	7	5	2	0	1	0	0	3	0	2	23
	APPROACH %	0%	30%	70%	71%	29%	0%	100%	0%	0%	60%	0%	40%	
	PEAK HR FACTOR		0.357			0.583			0.250			0.625		0.639
	APP/DEPART	10	/	6	7	/	5	1	/	12	5	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
0	0	0	0
0	0	0	1
0	0	0	0
1	0	0	2
0	0	0	0
0	0	0	0
0	0	0	1
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
2	0	0	4
1	0	0	3
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
1	0	0	1
0	0	0	0
0	0	0	0
0	0	0	1
1	0	0	0
0	0	0	0
0	0	0	0
1	0	0	2
3	0	0	4
2	0	0	2



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
2/6/19	NORTH & SOUTH:	Central	LOCATION #:	7
WEDNESDAY	EAST & WEST:	El Prado	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND Central			SOUTHBOUND Central			EASTBOUND El Prado			WESTBOUND El Prado			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 3	SR 0	EL 1	ET 1	ER 0	WL 1.5	WT 0.5	WR 1	TOTAL
AM	7:00 AM	0	0	8	2	0	0	0	0	0	8	0	0	18
	7:15 AM	0	0	3	1	2	0	0	0	0	4	0	2	12
	7:30 AM	0	2	7	0	2	0	0	0	0	5	0	3	19
	7:45 AM	0	2	5	0	0	0	0	0	0	1	0	2	10
	8:00 AM	0	1	5	0	1	0	0	0	0	2	0	2	11
	8:15 AM	0	1	2	1	0	0	0	0	0	2	0	2	8
	8:30 AM	0	1	1	0	1	0	0	0	0	5	0	1	9
	8:45 AM	0	0	5	0	2	0	0	0	0	7	0	0	14
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	7	36	4	8	0	0	0	0	34	0	12	101
	APPROACH %	0%	16%	84%	33%	67%	0%	0%	0%	0%	74%	0%	26%	
	APP/DEPART	43	/	19	12	/	42	0	/	40	46	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	4	23	3	4	0	0	0	0	18	0	7	59
	APPROACH %	0%	15%	85%	43%	57%	0%	0%	0%	0%	72%	0%	28%	
	PEAK HR FACTOR		0.750			0.583			0.000			0.781		0.776
	APP/DEPART	27	/	11	7	/	22	0	/	26	25	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	4	5	4	0	0	0	0	0	0	3	16
	4:15 PM	0	4	3	0	2	0	0	0	0	7	0	2	18
	4:30 PM	0	1	4	3	0	0	0	0	0	7	0	3	18
	4:45 PM	0	2	7	0	3	0	0	0	0	4	0	2	18
	5:00 PM	0	3	3	0	2	0	0	0	0	4	0	1	13
	5:15 PM	0	3	8	2	0	0	0	0	0	3	0	1	17
	5:30 PM	0	2	1	2	2	0	0	0	0	3	0	4	14
	5:45 PM	0	1	4	0	0	0	0	0	0	3	0	1	9
	VOLUMES	0	16	34	12	13	0	0	0	0	31	0	17	123
	APPROACH %	0%	32%	68%	48%	52%	0%	0%	0%	0%	65%	0%	35%	
	APP/DEPART	50	/	33	25	/	44	0	/	46	48	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	7	18	8	9	0	0	0	0	18	0	10	70
	APPROACH %	0%	28%	72%	47%	53%	0%	0%	0%	0%	64%	0%	36%	
	PEAK HR FACTOR		0.694			0.472			0.000			0.700		0.972
	APP/DEPART	25	/	17	17	/	27	0	/	26	28	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
6	0	0	0
0	0	0	0
4	0	0	3
2	0	0	0
2	0	0	0
0	0	0	0
0	0	0	1
2	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
16	0	0	4
12	0	0	3
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
2	0	0	1
1	0	0	1
1	0	0	0
2	0	0	1
1	0	0	1
3	0	0	0
0	0	0	1
0	0	0	1
10	0	0	6
6	0	0	3

Central

NORTH SIDE

El Prado WEST SIDE EAST SIDE **El Prado**

SOUTH SIDE

Central

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
2/6/19	NORTH & SOUTH:	Central	LOCATION #:	7
WEDNESDAY	EAST & WEST:	El Prado	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Central			SOUTHBOUND Central			EASTBOUND El Prado			WESTBOUND El Prado			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 3	SR 0	EL 1	ET 1	ER 0	WL 1.5	WT 0.5	WR 1	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	1	0	0	0	0	0	0	0	0	0	0	1
	APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	1	/	1	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	1	0	0	0	0	0	0	0	0	0	0	1
	APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.250			0.000			0.000			0.000		0.250
	APP/DEPART	1	/	1	0	/	0	0	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	1	0	0	0	0	0	0	1	2
	APPROACH %	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	100%	
	APP/DEPART	0	/	1	1	/	1	0	/	0	1	/	0	0
	BEGIN PEAK HR		3:45 PM											
	VOLUMES	0	0	0	0	1	0	0	0	0	0	0	1	2
	APPROACH %	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	100%	
	PEAK HR FACTOR		0.000			0.250			0.000			0.250		0.500
	APP/DEPART	0	/	1	1	/	1	0	/	0	1	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
2/6/19	NORTH & SOUTH:	Central	LOCATION #:	7
WEDNESDAY	EAST & WEST:	El Prado	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

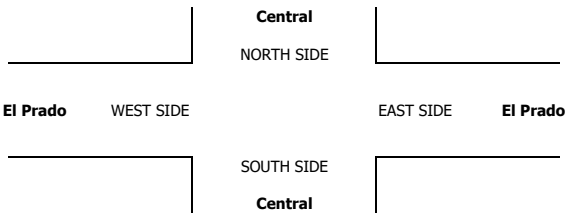
	NORTHBOUND Central			SOUTHBOUND Central			EASTBOUND El Prado			WESTBOUND El Prado			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 3	SR 0	EL 1	ET 1	ER 0	WL 1.5	WT 0.5	WR 1	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	3	0	1	2	0	0	0	0	0	0	0	6
7:30 AM	0	0	0	1	3	0	0	0	0	0	0	0	4
7:45 AM	0	2	0	0	0	0	0	0	0	1	0	0	3
8:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
8:15 AM	0	3	0	1	2	0	0	0	0	0	0	0	6
8:30 AM	0	1	0	0	0	0	0	0	0	0	0	1	2
8:45 AM	0	4	0	0	1	0	0	0	0	0	0	0	5
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	14	0	3	9	0	0	0	0	1	0	1	28
APPROACH %	0%	100%	0%	25%	75%	0%	0%	0%	0%	50%	0%	50%	
APP/DEPART	14	/	15	12	/	10	0	/	3	2	/	0	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	0	9	0	1	4	0	0	0	0	0	0	1	15
APPROACH %	0%	100%	0%	20%	80%	0%	0%	0%	0%	0%	0%	100%	
PEAK HR FACTOR		0.563			0.313			0.000			0.250		0.625
APP/DEPART	9	/	10	5	/	4	0	/	1	1	/	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	3	0	0	0	0	0	0	0	0	0	0	3
4:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
VOLUMES	0	7	1	0	2	0	0	0	0	0	0	0	10
APPROACH %	0%	88%	13%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	8	/	7	2	/	2	0	/	1	0	/	0	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	6	0	0	1	0	0	0	0	0	0	0	7
APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.500			0.250			0.000			0.000		0.583
APP/DEPART	6	/	6	1	/	1	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Jan 22, 19

LOCATION: Chino
NORTH & SOUTH: El Prado
EAST & WEST: Kimball

PROJECT #: SC2056
LOCATION #: 8
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

Add U-Turns to Left Turns

		NORTHBOUND (El Prado)			SOUTHBOUND (El Prado)			EASTBOUND (Kimball)			WESTBOUND (Kimball)			
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 2	SR 0	EL 1	ET 0.5	ER 0.5	WL 0.5	WT 0.5	WR 1	TOTAL
AM	7:00 AM	0	73	3	77	64	11	4	2	1	5	2	180	422
	7:15 AM	1	65	2	75	54	5	3	1	1	9	3	189	408
	7:30 AM	3	60	7	73	53	9	5	0	1	3	4	164	382
	7:45 AM	1	45	3	91	52	9	7	1	0	5	6	177	397
	8:00 AM	0	53	4	85	52	5	9	2	2	4	3	180	399
	8:15 AM	2	49	6	93	56	4	5	1	0	5	1	187	409
	8:30 AM	0	41	3	65	46	5	2	2	1	8	2	162	337
	8:45 AM	0	48	2	67	64	4	3	0	2	3	3	135	331
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	7	434	30	626	441	52	38	9	8	42	24	1,374	3,085
	APPROACH %	1%	92%	6%	56%	39%	5%	69%	16%	15%	3%	2%	95%	
	APP/DEPART	471	/	1,846	1,119	/	491	55	/	665	1,440	/	83	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	5	243	15	316	223	34	19	4	3	22	15	710	1,609
	APPROACH %	2%	92%	6%	55%	39%	6%	73%	15%	12%	3%	2%	95%	
	PEAK HR FACTOR		0.865			0.942			0.813			0.929		0.953
	APP/DEPART	263	/	972	573	/	248	26	/	335	747	/	54	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	55	9	183	70	2	14	11	3	1	0	136	484
	4:15 PM	3	49	7	197	62	3	9	13	0	2	2	133	480
	4:30 PM	0	73	7	174	70	3	7	6	1	7	1	174	523
	4:45 PM	1	52	4	180	60	5	8	4	1	5	1	155	476
	5:00 PM	0	60	10	193	85	2	11	2	2	7	2	170	544
	5:15 PM	2	40	6	218	81	1	5	1	1	3	1	142	501
	5:30 PM	2	50	4	221	73	5	6	0	3	2	0	141	507
	5:45 PM	0	43	5	234	70	2	4	3	1	1	1	126	490
	VOLUMES	8	422	52	1,600	571	23	64	40	12	28	8	1,177	4,005
	APPROACH %	2%	88%	11%	73%	26%	1%	55%	34%	10%	2%	1%	97%	
	APP/DEPART	482	/	1,663	2,194	/	611	116	/	1,692	1,213	/	39	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	3	225	27	765	296	11	31	13	5	22	5	641	2,044
	APPROACH %	1%	88%	11%	71%	28%	1%	63%	27%	10%	3%	1%	96%	
	PEAK HR FACTOR		0.797			0.893			0.817			0.918		0.939
	APP/DEPART	255	/	897	1,072	/	323	49	/	805	668	/	19	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	2	1	99
0	0	0	95
0	1	0	87
0	0	0	96
0	1	0	84
0	0	0	98
0	0	0	85
0	1	2	68
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	5	3	712
0	3	1	377
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	1	2	83
0	0	0	87
1	1	0	113
0	0	1	96
2	0	0	116
1	0	1	93
0	0	2	100
2	1	0	79
6	3	6	767
4	1	2	418

El Prado

NORTH SIDE

Kimball WEST SIDE EAST SIDE **Kimball**

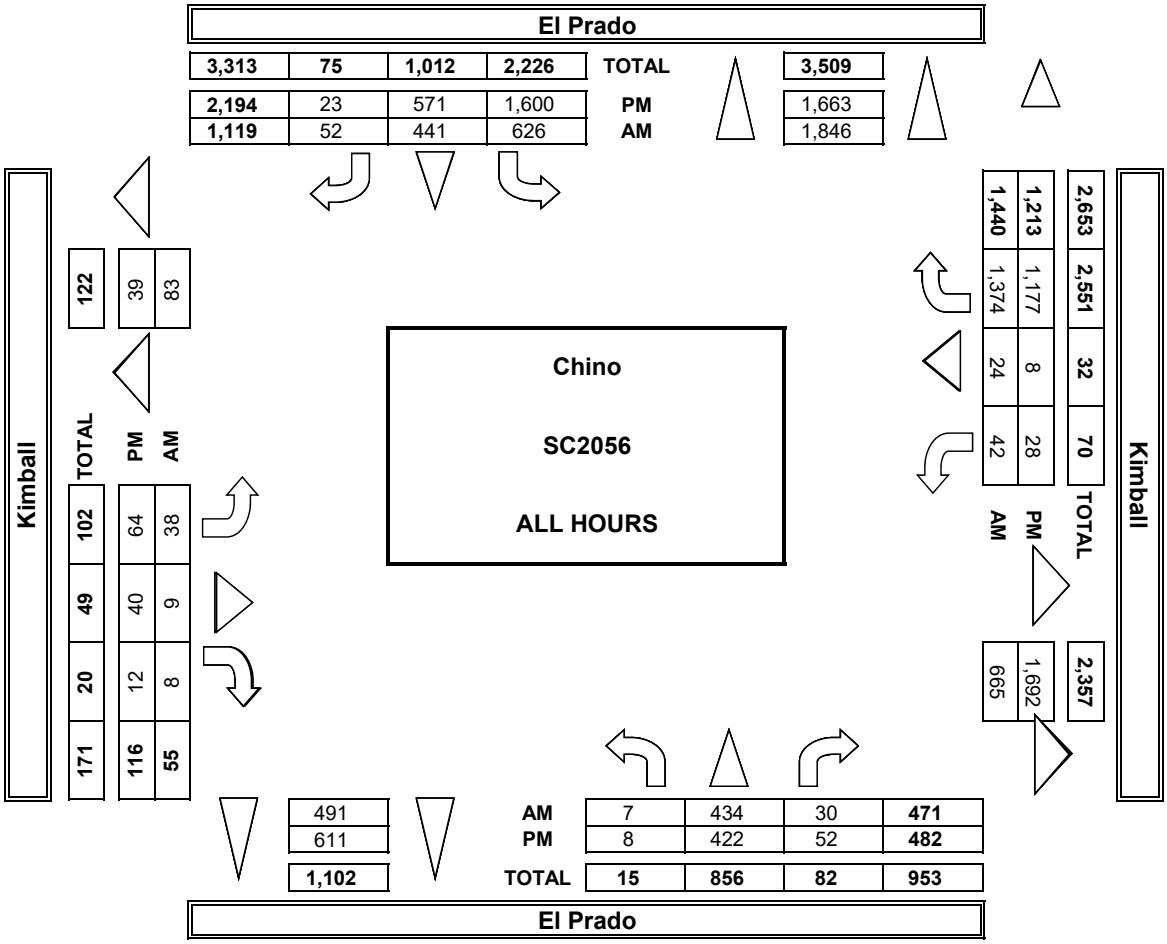
SOUTH SIDE

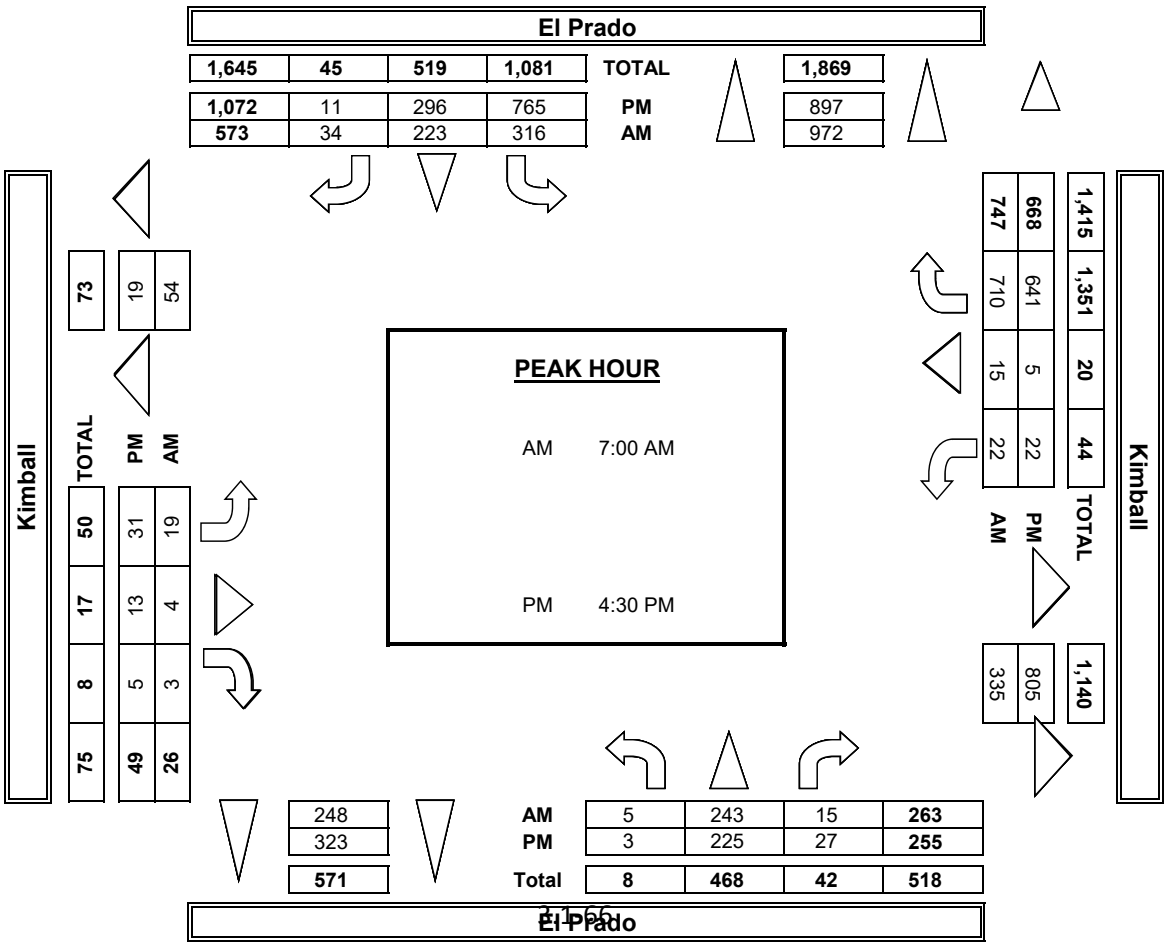
El Prado

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	2	0	0	2	0	1	0	0	1	0	1	0	0	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	3	0	1	4	0	1	0	1	2	0	2	0	0	2
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0
	4:45 PM	0	1	0	1	2	0	0	0	1	1	0	1	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2
	5:30 PM	0	0	1	1	2	0	0	1	0	1	0	0	0	1	1
	5:45 PM	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0
	TOTAL	0	8	1	2	11	0	5	1	1	7	0	3	0	1	4

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/22/19	NORTH & SOUTH:	El Prado	LOCATION #:	8
TUESDAY	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

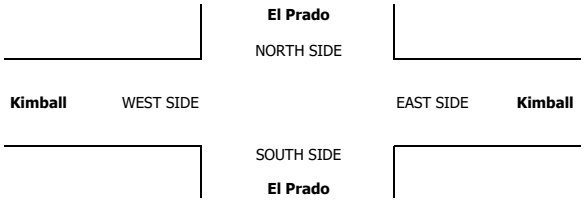
		NORTHBOUND (El Prado)			SOUTHBOUND (El Prado)			EASTBOUND (Kimball)			WESTBOUND (Kimball)			
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 2	SR 0	EL 1	ET 0.5	ER 0.5	WL 0.5	WT 0.5	WR 1	TOTAL
AM	7:00 AM	0	72	2	67	62	11	4	2	1	3	2	171	397
	7:15 AM	1	60	0	63	51	5	2	1	1	9	3	178	374
	7:30 AM	2	57	4	59	51	9	5	0	1	0	3	153	344
	7:45 AM	1	38	1	77	49	9	7	1	0	5	6	169	363
	8:00 AM	0	50	1	69	50	3	8	2	2	1	3	166	355
	8:15 AM	1	44	2	81	51	4	5	1	0	2	1	177	369
	8:30 AM	0	36	3	53	45	5	1	2	1	7	1	149	303
	8:45 AM	0	44	0	57	62	4	3	0	2	2	3	130	307
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	5	401	13	526	421	50	35	9	8	29	22	1,293	2,812
	APPROACH %	1%	96%	3%	53%	42%	5%	67%	17%	15%	2%	2%	96%	
	APP/DEPART	419	/	1,729	997	/	458	52	/	548	1,344	/	77	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	4	227	7	266	213	34	18	4	3	17	14	671	1,478
	APPROACH %	2%	95%	3%	52%	42%	7%	72%	16%	12%	2%	2%	96%	
	PEAK HR FACTOR		0.804			0.916			0.781			0.924		0.931
	APP/DEPART	238	/	916	513	/	233	25	/	277	702	/	52	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	54	9	169	66	2	13	11	3	1	0	126	454
	4:15 PM	3	47	6	187	57	3	9	12	0	2	2	115	443
	4:30 PM	0	67	5	157	68	3	7	6	1	5	1	159	479
	4:45 PM	1	47	4	168	59	5	8	3	1	4	1	147	448
	5:00 PM	0	57	10	172	79	2	9	2	2	7	2	157	499
	5:15 PM	1	36	3	203	79	1	4	1	1	1	1	135	466
	5:30 PM	2	47	3	211	69	5	6	0	3	1	0	128	475
	5:45 PM	0	39	3	225	65	2	3	3	1	0	1	121	463
	VOLUMES	7	394	43	1,492	542	23	59	38	12	21	8	1,088	3,727
	APPROACH %	2%	89%	10%	73%	26%	1%	54%	35%	11%	2%	1%	97%	
	APP/DEPART	444	/	1,541	2,057	/	575	109	/	1,573	1,117	/	38	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	3	179	19	811	292	10	22	6	7	9	4	541	1,903
	APPROACH %	1%	89%	9%	73%	26%	1%	63%	17%	20%	2%	1%	98%	
	PEAK HR FACTOR		0.750			0.953			0.673			0.834		0.953
	APP/DEPART	201	/	742	1,113	/	308	35	/	836	554	/	17	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
0	2	1	97
0	0	0	90
0	1	0	79
0	0	0	93
0	1	0	76
0	0	0	94
0	0	0	84
0	1	2	65
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	5	3	678
0	3	1	359
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	1	2	79
0	0	0	74
1	1	0	101
0	0	1	91
2	0	0	106
1	0	1	90
0	0	2	91
2	1	0	75
6	3	6	707
5	1	3	362



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/22/19	NORTH & SOUTH:	El Prado	LOCATION #:	8
TUESDAY	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND El Prado			SOUTHBOUND El Prado			EASTBOUND Kimball			WESTBOUND Kimball			
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 2	SR 0	EL 1	ET 0.5	ER 0.5	WL 0.5	WT 0.5	WR 1	TOTAL
AM	7:00 AM	0	1	0	6	0	0	0	0	0	1	0	6	14
	7:15 AM	0	2	0	7	1	0	0	0	0	0	0	4	14
	7:30 AM	1	0	1	5	0	0	0	0	0	2	1	6	16
	7:45 AM	0	1	0	6	2	0	0	0	0	0	0	6	15
	8:00 AM	0	0	1	8	1	0	1	0	0	0	0	8	19
	8:15 AM	1	3	2	7	1	0	0	0	0	1	0	8	23
	8:30 AM	0	1	0	6	0	0	0	0	0	0	1	8	16
	8:45 AM	0	1	1	4	0	0	0	0	0	1	0	3	10
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	2	9	5	49	5	0	1	0	0	5	2	49	127
	APPROACH %	13%	56%	31%	91%	9%	0%	100%	0%	0%	9%	4%	88%	
	APP/DEPART	16	/	59	54	/	10	1	/	54	56	/	4	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	1	5	3	27	4	0	1	0	0	1	1	30	73
	APPROACH %	11%	56%	33%	87%	13%	0%	100%	0%	0%	3%	3%	94%	
	PEAK HR FACTOR		0.375			0.861			0.250			0.889		0.793
	APP/DEPART	9	/	36	31	/	5	1	/	30	32	/	2	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	4	2	0	1	0	0	0	0	4	11
	4:15 PM	0	0	0	5	3	0	0	1	0	0	0	7	16
	4:30 PM	0	1	0	8	0	0	0	0	0	2	0	5	16
	4:45 PM	0	2	0	5	0	0	0	1	0	1	0	2	11
	5:00 PM	0	0	0	10	1	0	2	0	0	0	0	5	18
	5:15 PM	1	0	1	7	0	0	1	0	0	2	0	4	16
	5:30 PM	0	2	1	4	1	0	0	0	0	0	0	3	11
	5:45 PM	0	2	0	6	1	0	1	0	0	1	0	1	12
	VOLUMES	1	7	2	49	8	0	5	2	0	6	0	31	111
	APPROACH %	10%	70%	20%	86%	14%	0%	71%	29%	0%	16%	0%	84%	
	APP/DEPART	10	/	43	57	/	14	7	/	53	37	/	1	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	1	3	1	30	1	0	3	1	0	5	0	16	61
	APPROACH %	20%	60%	20%	97%	3%	0%	75%	25%	0%	24%	0%	76%	
	PEAK HR FACTOR		0.625			0.705			0.500			0.750		0.847
	APP/DEPART	5	/	22	31	/	6	4	/	32	21	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/22/19	NORTH & SOUTH:	El Prado	LOCATION #:	8
TUESDAY	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND El Prado			SOUTHBOUND El Prado			EASTBOUND Kimball			WESTBOUND Kimball			
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 2	SR 0	EL 1	ET 0.5	ER 0.5	WL 0.5	WT 0.5	WR 1	TOTAL
AM	7:00 AM	0	0	0	2	0	0	0	0	0	0	0	0	2
	7:15 AM	0	0	1	0	1	0	0	0	0	0	0	2	4
	7:30 AM	0	2	0	1	0	0	0	0	0	0	0	2	5
	7:45 AM	0	0	1	1	1	0	0	0	0	0	0	1	4
	8:00 AM	0	0	1	2	0	0	0	0	0	0	0	1	4
	8:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	2	2
	8:45 AM	0	1	0	1	1	0	0	0	0	0	0	1	4
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	4	3	7	4	0	0	0	0	0	0	9	27
	APPROACH %	0%	57%	43%	64%	36%	0%	0%	0%	0%	0%	0%	100%	
	APP/DEPART	7	/	13	11	/	4	0	/	10	9	/	0	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	2	3	4	2	0	0	0	0	0	0	6	17
	APPROACH %	0%	40%	60%	67%	33%	0%	0%	0%	0%	0%	0%	100%	
	PEAK HR FACTOR		0.625			0.750			0.000			0.750		0.850
	APP/DEPART	5	/	8	6	/	2	0	/	7	6	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	1	0	0	0	0	0	0	2	3
	4:15 PM	0	0	0	1	0	0	0	0	0	0	0	1	2
	4:30 PM	0	0	1	0	1	0	0	0	0	0	0	2	4
	4:45 PM	0	1	0	2	0	0	0	0	0	0	0	1	4
	5:00 PM	0	0	0	1	1	0	0	0	0	0	0	1	3
	5:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
	5:30 PM	0	0	0	2	0	0	0	0	0	0	0	2	4
	5:45 PM	0	0	1	1	2	0	0	0	0	0	0	0	4
	VOLUMES	0	3	2	7	5	0	0	0	0	0	0	9	26
	APPROACH %	0%	60%	40%	58%	42%	0%	0%	0%	0%	0%	0%	100%	
	APP/DEPART	5	/	12	12	/	5	0	/	9	9	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	2	1	4	3	0	0	0	0	0	0	3	13
	APPROACH %	0%	67%	33%	57%	43%	0%	0%	0%	0%	0%	0%	100%	
	PEAK HR FACTOR		0.375			0.583			0.000			0.375		0.813
	APP/DEPART	3	/	5	7	/	3	0	/	5	3	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	1
0	0	0	2
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	5
0	0	0	4
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	4
0	0	0	2

El Prado NORTH SIDE

Kimball WEST SIDE — EAST SIDE **Kimball**

SOUTH SIDE **El Prado**

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/22/19	NORTH & SOUTH:	El Prado	LOCATION #:	8
TUESDAY	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND El Prado			SOUTHBOUND El Prado			EASTBOUND Kimball			WESTBOUND Kimball			
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 2	SR 0	EL 1	ET 0.5	ER 0.5	WL 0.5	WT 0.5	WR 1	TOTAL
AM	7:00 AM	0	0	1	2	2	0	0	0	0	1	0	3	9
	7:15 AM	0	3	1	5	1	0	1	0	0	0	0	5	16
	7:30 AM	0	1	2	8	2	0	0	0	0	1	0	3	17
	7:45 AM	0	6	1	7	0	0	0	0	0	0	0	1	15
	8:00 AM	0	3	1	6	1	2	0	0	0	3	0	5	21
	8:15 AM	0	1	2	5	3	0	0	0	0	2	0	2	15
	8:30 AM	0	4	0	6	1	0	1	0	0	1	0	3	16
	8:45 AM	0	2	1	5	1	0	0	0	0	0	0	1	10
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	20	9	44	11	2	2	0	0	8	0	23	119
	APPROACH %	0%	69%	31%	77%	19%	4%	100%	0%	0%	26%	0%	74%	
	APP/DEPART	29	/	45	57	/	19	2	/	53	31	/	2	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	13	5	26	4	2	1	0	0	4	0	14	69
	APPROACH %	0%	72%	28%	81%	13%	6%	100%	0%	0%	22%	0%	78%	
	PEAK HR FACTOR		0.643			0.800			0.250			0.563		0.821
	APP/DEPART	18	/	28	32	/	8	1	/	31	18	/	2	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	1	0	9	1	0	0	0	0	0	0	4	15
	4:15 PM	0	2	1	4	2	0	0	0	0	0	0	10	19
	4:30 PM	0	5	1	9	1	0	0	0	0	0	0	8	24
	4:45 PM	0	2	0	5	1	0	0	0	0	0	0	5	13
	5:00 PM	0	3	0	10	4	0	0	0	0	0	0	7	24
	5:15 PM	0	2	2	8	2	0	0	0	0	0	0	3	17
	5:30 PM	0	1	0	4	3	0	0	0	0	1	0	8	17
	5:45 PM	0	2	1	2	2	0	0	0	0	0	0	4	11
	VOLUMES	0	18	5	51	16	0	0	0	0	1	0	49	140
	APPROACH %	0%	78%	22%	76%	24%	0%	0%	0%	0%	2%	0%	98%	
	APP/DEPART	23	/	67	67	/	17	0	/	56	50	/	0	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	0	12	2	28	8	0	0	0	0	0	0	30	80
	APPROACH %	0%	86%	14%	78%	22%	0%	0%	0%	0%	0%	0%	100%	
	PEAK HR FACTOR		0.583			0.643			0.000			0.750		0.833
	APP/DEPART	14	/	42	36	/	8	0	/	30	30	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/22/19	NORTH & SOUTH:	El Prado	LOCATION #:	8
TUESDAY	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND El Prado			SOUTHBOUND El Prado			EASTBOUND Kimball			WESTBOUND Kimball			
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 2	SR 0	EL 1	ET 0.5	ER 0.5	WL 0.5	WT 0.5	WR 1	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	1	0	0	0	0	0	0	0	0	1
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	1	/	0	0	/	1	0	/	0	0
	BEGIN PEAK HR		3:15 PM											
	VOLUMES	0	0	0	1	0	0	0	0	0	0	0	0	1
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.250			0.000			0.000		0.250
	APP/DEPART	0	/	0	1	/	0	0	/	1	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/22/19	NORTH & SOUTH:	El Prado	LOCATION #:	8
TUESDAY	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

	NORTHBOUND El Prado			SOUTHBOUND El Prado			EASTBOUND Kimball			WESTBOUND Kimball			
LANES:	NL 1	NT 1	NR 1	SL 1	ST 2	SR 0	EL 1	ET 0.5	ER 0.5	WL 0.5	WT 0.5	WR 1	TOTAL
AM 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM 03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR		3:00 PM											
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
Tue, Jan 22, 19	NORTH & SOUTH:	Mountain	LOCATION #:	9
	EAST & WEST:	Kimball	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

Add U-Turns to Left Turns

		NORTHBOUND (Mountain)			SOUTHBOUND (Mountain)			EASTBOUND (Kimball)			WESTBOUND (Kimball)			
	LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	16	0	3	0	0	0	0	64	7	5	135	0	230
	7:15 AM	11	0	1	0	0	0	0	57	17	14	156	0	256
	7:30 AM	17	0	4	0	0	0	0	69	10	16	179	0	295
	7:45 AM	11	0	2	0	0	0	0	61	21	21	169	0	285
	8:00 AM	10	0	4	0	0	0	0	69	16	10	167	0	276
	8:15 AM	23	0	4	0	0	0	0	66	12	7	157	0	269
	8:30 AM	8	0	2	0	0	0	0	57	2	1	153	0	223
	8:45 AM	7	0	1	0	0	0	0	53	9	2	177	0	249
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	103	0	21	0	0	0	0	496	94	76	1,293	0	2,083
	APPROACH %	83%	0%	17%	0%	0%	0%	0%	84%	16%	6%	94%	0%	
	APP/DEPART	124	/	0	0	/	170	590	/	517	1,369	/	1,396	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	61	0	14	0	0	0	0	265	59	54	672	0	1,125
	APPROACH %	81%	0%	19%	0%	0%	0%	0%	82%	18%	7%	93%	0%	
	PEAK HR FACTOR		0.694			0.000			0.953			0.931		0.953
	APP/DEPART	75	/	0	0	/	113	324	/	279	726	/	733	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	21	0	12	0	0	0	0	171	6	1	115	0	326
	4:15 PM	10	0	10	0	0	0	0	196	8	4	108	0	336
	4:30 PM	36	0	33	0	0	0	0	185	11	5	165	0	435
	4:45 PM	33	0	22	0	0	0	0	182	8	4	151	0	400
	5:00 PM	9	0	6	0	0	0	0	226	5	2	173	0	421
	5:15 PM	11	0	2	0	0	0	0	238	4	3	111	0	369
	5:30 PM	12	0	9	0	0	0	0	213	13	1	118	0	366
	5:45 PM	9	0	4	0	0	0	0	192	5	0	99	0	309
	VOLUMES	141	0	98	0	0	0	0	1,603	60	20	1,040	0	2,962
	APPROACH %	59%	0%	41%	0%	0%	0%	0%	96%	4%	2%	98%	0%	
	APP/DEPART	239	/	0	0	/	80	1,663	/	1,701	1,060	/	1,181	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	89	0	63	0	0	0	0	831	28	14	600	0	1,625
	APPROACH %	59%	0%	41%	0%	0%	0%	0%	97%	3%	2%	98%	0%	
	PEAK HR FACTOR		0.551			0.000			0.887			0.877		0.934
	APP/DEPART	152	/	0	0	/	42	859	/	894	614	/	689	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	X	0	X
2	0	3	0
0	0	3	0
0	0	5	0
1	0	2	0
0	0	1	0
1	0	2	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
4	0	16	0
2	0	10	0
0	0	0	0
0	0	0	0
0	0	0	0
3	0	0	0
2	0	1	0
8	0	1	0
9	0	0	0
1	0	0	0
0	0	1	0
2	0	3	0
1	0	1	0
26	0	7	0
18	0	2	0

Mountain

NORTH SIDE

Kimball WEST SIDE EAST SIDE **Kimball**

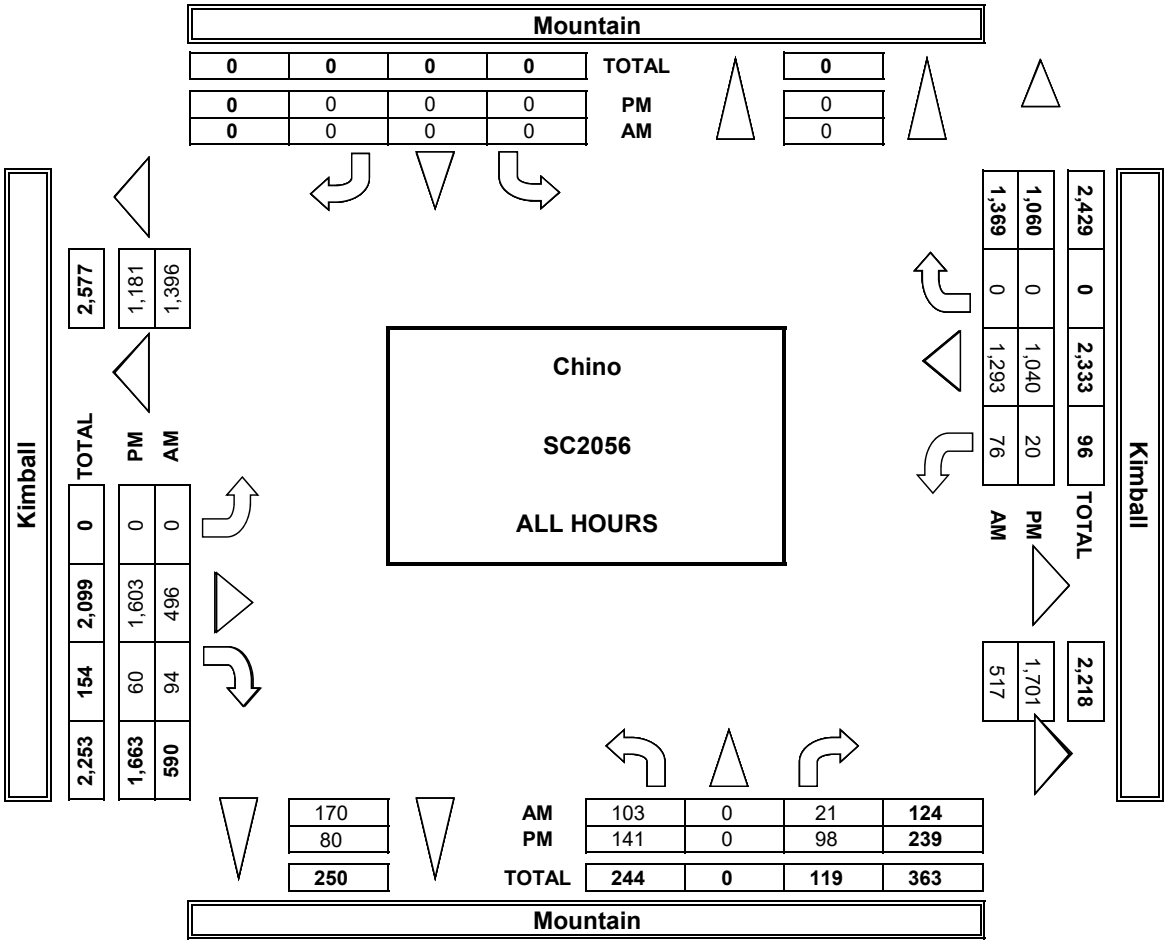
SOUTH SIDE

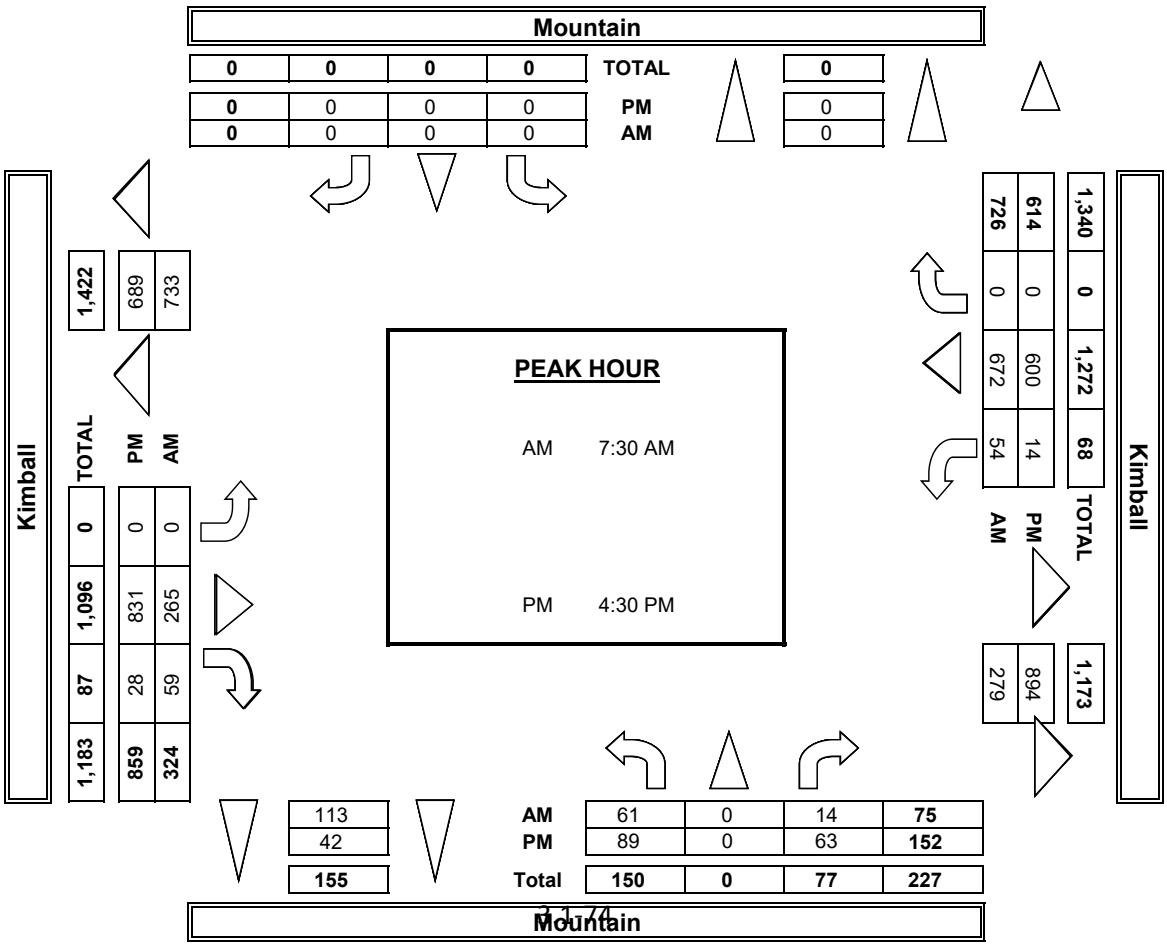
Mountain

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	3	0	3	0	0	0	0	0	0	0	3	0	3
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/22/19	NORTH & SOUTH:	Mountain	LOCATION #:	9
TUESDAY	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Mountain)			SOUTHBOUND (Mountain)			EASTBOUND (Kimball)			WESTBOUND (Kimball)			
	LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	10	0	3	0	0	0	0	51	5	4	125	0	198
	7:15 AM	7	0	1	0	0	0	0	50	15	9	151	0	233
	7:30 AM	14	0	1	0	0	0	0	55	6	16	172	0	264
	7:45 AM	10	0	2	0	0	0	0	53	20	21	158	0	264
	8:00 AM	10	0	2	0	0	0	0	58	11	7	152	0	240
	8:15 AM	18	0	3	0	0	0	0	55	6	2	149	0	233
	8:30 AM	7	0	0	0	0	0	0	49	2	0	147	0	205
	8:45 AM	6	0	0	0	0	0	0	49	4	2	165	0	226
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	82	0	12	0	0	0	0	420	69	61	1,219	0	1,863
	APPROACH %	87%	0%	13%	0%	0%	0%	0%	86%	14%	5%	95%	0%	
	APP/DEPART	94	/	0	0	/	130	489	/	432	1,280	/	1,301	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	52	0	8	0	0	0	0	221	43	46	631	0	1,001
	APPROACH %	87%	0%	13%	0%	0%	0%	0%	84%	16%	7%	93%	0%	
	PEAK HR FACTOR		0.714			0.000			0.904			0.900		0.948
	APP/DEPART	60	/	0	0	/	89	264	/	229	677	/	683	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	16	0	10	0	0	0	0	160	3	0	106	0	295
	4:15 PM	9	0	6	0	0	0	0	184	4	2	98	0	303
	4:30 PM	34	0	28	0	0	0	0	167	10	2	155	0	396
	4:45 PM	31	0	20	0	0	0	0	170	7	2	146	0	376
	5:00 PM	8	0	5	0	0	0	0	212	4	1	163	0	393
	5:15 PM	9	0	0	0	0	0	0	223	4	0	103	0	339
	5:30 PM	10	0	6	0	0	0	0	202	10	0	109	0	337
	5:45 PM	8	0	3	0	0	0	0	181	5	0	92	0	289
	VOLUMES	125	0	78	0	0	0	0	1,499	47	7	972	0	2,728
	APPROACH %	62%	0%	38%	0%	0%	0%	0%	97%	3%	1%	99%	0%	
	APP/DEPART	203	/	0	0	/	54	1,546	/	1,577	979	/	1,097	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	82	0	53	0	0	0	0	772	25	5	567	0	1,504
	APPROACH %	61%	0%	39%	0%	0%	0%	0%	97%	3%	1%	99%	0%	
	PEAK HR FACTOR		0.544			0.000			0.878			0.872		0.949
	APP/DEPART	135	/	0	0	/	30	797	/	825	572	/	649	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR X	ERR 0	WRR X
2	0	3	0
0	0	3	0
0	0	4	0
1	0	2	0
0	0	1	0
1	0	2	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
4	0	15	0
2	0	9	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
26	0	6	0
18	0	2	0

Mountain

NORTH SIDE

Kimball WEST SIDE EAST SIDE **Kimball**

SOUTH SIDE

Mountain

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/22/19	NORTH & SOUTH:	Mountain	LOCATION #:	9
TUESDAY	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS	NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Mountain)			SOUTHBOUND (Mountain)			EASTBOUND (Kimball)			WESTBOUND (Kimball)			
	LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	2	0	0	0	0	0	0	7	0	0	7	0	16
	7:15 AM	3	0	0	0	0	0	0	5	0	2	2	0	12
	7:30 AM	2	0	2	0	0	0	0	5	2	0	4	0	15
	7:45 AM	0	0	0	0	0	0	0	2	0	0	4	0	6
	8:00 AM	0	0	1	0	0	0	0	8	2	0	12	0	23
	8:15 AM	1	0	0	0	0	0	0	4	1	3	6	0	15
	8:30 AM	0	0	1	0	0	0	0	4	0	0	3	0	8
	8:45 AM	0	0	0	0	0	0	0	3	1	0	5	0	9
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	8	0	4	0	0	0	0	38	6	5	43	0	104
	APPROACH %	67%	0%	33%	0%	0%	0%	0%	86%	14%	10%	90%	0%	
	APP/DEPART	12	/	0	0	/	11	44	/	42	48	/	51	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	3	0	3	0	0	0	0	19	5	3	26	0	59
	APPROACH %	50%	0%	50%	0%	0%	0%	0%	79%	21%	10%	90%	0%	
	PEAK HR FACTOR		0.375			0.000			0.600			0.604		0.641
	APP/DEPART	6	/	0	0	/	8	24	/	22	29	/	29	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	3	0	1	0	0	0	0	9	0	0	4	0	17
	4:15 PM	0	0	0	0	0	0	0	8	0	0	5	0	13
	4:30 PM	1	0	1	0	0	0	0	8	0	1	3	0	14
	4:45 PM	1	0	0	0	0	0	0	6	0	2	3	0	12
	5:00 PM	0	0	0	0	0	0	0	7	0	0	2	0	9
	5:15 PM	1	0	0	0	0	0	0	7	0	1	3	0	12
	5:30 PM	0	0	0	0	0	0	0	4	0	0	3	0	7
	5:45 PM	0	0	0	0	0	0	0	6	0	0	2	0	8
	VOLUMES	6	0	2	0	0	0	0	55	0	4	25	0	92
	APPROACH %	75%	0%	25%	0%	0%	0%	0%	100%	0%	14%	86%	0%	
	APP/DEPART	8	/	0	0	/	4	55	/	57	29	/	31	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	5	0	2	0	0	0	0	31	0	3	15	0	56
	APPROACH %	71%	0%	29%	0%	0%	0%	0%	100%	0%	17%	83%	0%	
	PEAK HR FACTOR		0.438			0.000			0.861			0.900		0.824
	APP/DEPART	7	/	0	0	/	3	31	/	33	18	/	20	0

U-TURNS					
NB	SB	EB	WB	TTL	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/22/19	NORTH & SOUTH:	Mountain	LOCATION #:	9
TUESDAY	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Mountain			SOUTHBOUND Mountain			EASTBOUND Kimball			WESTBOUND Kimball			
LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
7:00 AM	1	0	0	0	0	0	0	2	0	0	1	0	4
7:15 AM	0	0	0	0	0	0	0	0	0	1	1	0	2
7:30 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	1
8:00 AM	0	0	1	0	0	0	0	1	0	0	1	0	3
8:15 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
8:30 AM	1	0	0	0	0	0	0	2	0	0	0	0	3
8:45 AM	0	0	0	0	0	0	0	0	1	0	2	0	3
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	2	0	1	0	0	0	0	9	2	1	5	0	20
APPROACH %	67%	0%	33%	0%	0%	0%	0%	82%	18%	17%	83%	0%	
APP/DEPART	3	/	0	0	/	3	11	/	10	6	/	7	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	1	0	1	0	0	0	0	5	1	0	3	0	11
APPROACH %	50%	0%	50%	0%	0%	0%	0%	83%	17%	0%	100%	0%	
PEAK HR FACTOR		0.500			0.000			0.750			0.375		0.917
APP/DEPART	2	/	0	0	/	1	6	/	6	3	/	4	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	1	0	0	0	0	0	0	1	1	1	1	0	5
4:30 PM	0	0	0	0	0	0	0	4	0	0	3	0	7
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	1	0	1	1	0	3
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
5:45 PM	1	0	1	0	0	0	0	0	0	0	0	0	2
VOLUMES	3	0	1	0	0	0	0	6	1	3	6	0	20
APPROACH %	75%	0%	25%	0%	0%	0%	0%	86%	14%	33%	67%	0%	
APP/DEPART	4	/	0	0	/	4	7	/	7	9	/	9	0
BEGIN PEAK HR		4:15 PM											
VOLUMES	1	0	0	0	0	0	0	6	1	2	5	0	15
APPROACH %	100%	0%	0%	0%	0%	0%	0%	86%	14%	29%	71%	0%	
PEAK HR FACTOR		0.250			0.000			0.438			0.583		0.536
APP/DEPART	1	/	0	0	/	3	7	/	6	7	/	6	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

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DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/22/19	NORTH & SOUTH:	Mountain	LOCATION #:	9
TUESDAY	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

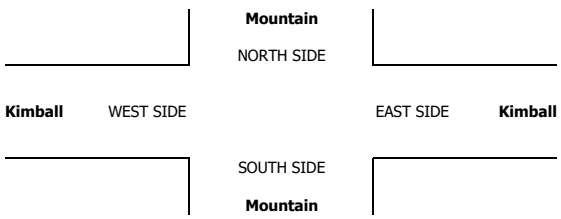
	NORTHBOUND Mountain			SOUTHBOUND Mountain			EASTBOUND Kimball			WESTBOUND Kimball			
LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
7:00 AM	3	0	0	0	0	0	0	4	2	1	2	0	12
7:15 AM	1	0	0	0	0	0	0	2	2	2	2	0	9
7:30 AM	1	0	1	0	0	0	0	7	2	0	3	0	14
7:45 AM	1	0	0	0	0	0	0	6	0	0	7	0	14
8:00 AM	0	0	0	0	0	0	0	2	3	3	2	0	10
8:15 AM	4	0	1	0	0	0	0	5	5	2	2	0	19
8:30 AM	0	0	1	0	0	0	0	2	0	1	3	0	7
8:45 AM	1	0	1	0	0	0	0	1	3	0	5	0	11
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	11	0	4	0	0	0	0	29	17	9	26	0	96
APPROACH %	73%	0%	27%	0%	0%	0%	0%	63%	37%	26%	74%	0%	
APP/DEPART	15	/	0	0	/	26	46	/	33	35	/	37	0
BEGIN PEAK HR		7:30 AM											
VOLUMES	6	0	2	0	0	0	0	20	10	5	14	0	57
APPROACH %	75%	0%	25%	0%	0%	0%	0%	67%	33%	26%	74%	0%	
PEAK HR FACTOR		0.400			0.000			0.750			0.679		0.750
APP/DEPART	8	/	0	0	/	15	30	/	22	19	/	20	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	1	0	1	0	0	0	0	1	3	1	5	0	12
4:15 PM	0	0	4	0	0	0	0	3	3	1	4	0	15
4:30 PM	1	0	4	0	0	0	0	6	1	2	4	0	18
4:45 PM	1	0	2	0	0	0	0	6	1	0	2	0	12
5:00 PM	1	0	1	0	0	0	0	6	1	0	7	0	16
5:15 PM	1	0	2	0	0	0	0	8	0	2	4	0	17
5:30 PM	2	0	3	0	0	0	0	7	3	0	6	0	21
5:45 PM	0	0	0	0	0	0	0	5	0	0	5	0	10
VOLUMES	7	0	17	0	0	0	0	42	12	6	37	0	121
APPROACH %	29%	0%	71%	0%	0%	0%	0%	78%	22%	14%	86%	0%	
APP/DEPART	24	/	0	0	/	18	54	/	59	43	/	44	0
BEGIN PEAK HR		4:45 PM											
VOLUMES	5	0	8	0	0	0	0	27	5	2	19	0	66
APPROACH %	38%	0%	62%	0%	0%	0%	0%	84%	16%	10%	90%	0%	
PEAK HR FACTOR		0.650			0.000			0.800			0.750		0.786
APP/DEPART	13	/	0	0	/	7	32	/	35	21	/	24	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR X	ERR 0	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/22/19	NORTH & SOUTH:	Mountain	LOCATION #:	9
TUESDAY	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Mountain			SOUTHBOUND Mountain			EASTBOUND Kimball			WESTBOUND Kimball			
	LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	1	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0	0
	BEGIN PEAK HR		3:15 PM											
	VOLUMES	0	0	0	0	0	0	0	1	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.250			0.000		0.250
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/22/19	NORTH & SOUTH:	Mountain	LOCATION #:	9
TUESDAY	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

	NORTHBOUND Mountain			SOUTHBOUND Mountain			EASTBOUND Kimball			WESTBOUND Kimball			
LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR		3:00 PM											
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR X	ERR 0	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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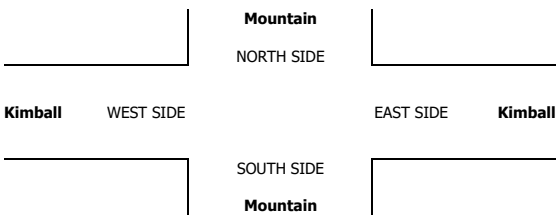

INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2081
Tue, Feb 12, 19	NORTH & SOUTH:	Mountain	LOCATION #:	2
	EAST & WEST:	Bickmore	CONTROL:	STOP W

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

Add U-Turns to Left Turns

		NORTHBOUND (Mountain)			SOUTHBOUND (Mountain)			EASTBOUND (Bickmore)			WESTBOUND (Bickmore)			
	LANES:	NL X	NT 1	NR 0	SL 1	ST 1	SR X	EL X	ET X	ER X	WL 1	WT X	WR 1	TOTAL
AM	7:00 AM	0	1	0	5	1	0	0	0	0	24	0	44	75
	7:15 AM	0	1	2	7	0	0	0	0	0	12	0	39	61
	7:30 AM	0	2	2	5	2	0	0	0	0	9	0	35	55
	7:45 AM	0	4	1	6	1	0	0	0	0	4	0	40	56
	8:00 AM	0	4	0	2	1	0	0	0	0	5	0	23	35
	8:15 AM	0	0	1	6	1	0	0	0	0	2	0	23	33
	8:30 AM	0	2	0	7	0	0	0	0	0	2	0	19	30
	8:45 AM	0	0	1	5	0	0	0	0	0	1	0	16	23
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	14	7	43	6	0	0	0	0	59	0	239	368
	APPROACH %	0%	67%	33%	88%	12%	0%	0%	0%	0%	20%	0%	80%	
	APP/DEPART	21	/	253	49	/	65	0	/	50	298	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	8	5	23	4	0	0	0	0	49	0	158	247
	APPROACH %	0%	62%	38%	85%	15%	0%	0%	0%	0%	24%	0%	76%	
	PEAK HR FACTOR		0.650			0.964			0.000			0.761		0.823
	APP/DEPART	13	/	166	27	/	53	0	/	28	207	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	1	5	9	1	0	0	0	0	0	0	6	22
	4:15 PM	0	3	4	12	0	0	0	0	0	0	0	4	23
	4:30 PM	0	2	8	13	1	0	0	0	0	2	0	14	40
	4:45 PM	0	2	5	6	1	0	0	0	0	3	0	16	33
	5:00 PM	0	1	7	11	0	0	0	0	0	0	0	9	28
	5:15 PM	0	1	7	11	1	0	0	0	0	4	0	9	33
	5:30 PM	0	0	8	17	0	0	0	0	0	1	0	8	34
	5:45 PM	0	0	8	6	0	0	0	0	0	0	0	3	17
	VOLUMES	0	10	52	85	4	0	0	0	0	10	0	69	230
	APPROACH %	0%	16%	84%	96%	4%	0%	0%	0%	0%	13%	0%	87%	
	APP/DEPART	62	/	79	89	/	14	0	/	137	79	/	0	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	0	6	27	41	3	0	0	0	0	9	0	48	134
	APPROACH %	0%	18%	82%	93%	7%	0%	0%	0%	0%	16%	0%	84%	
	PEAK HR FACTOR		0.825			0.786			0.000			0.750		0.838
	APP/DEPART	33	/	54	44	/	12	0	/	68	57	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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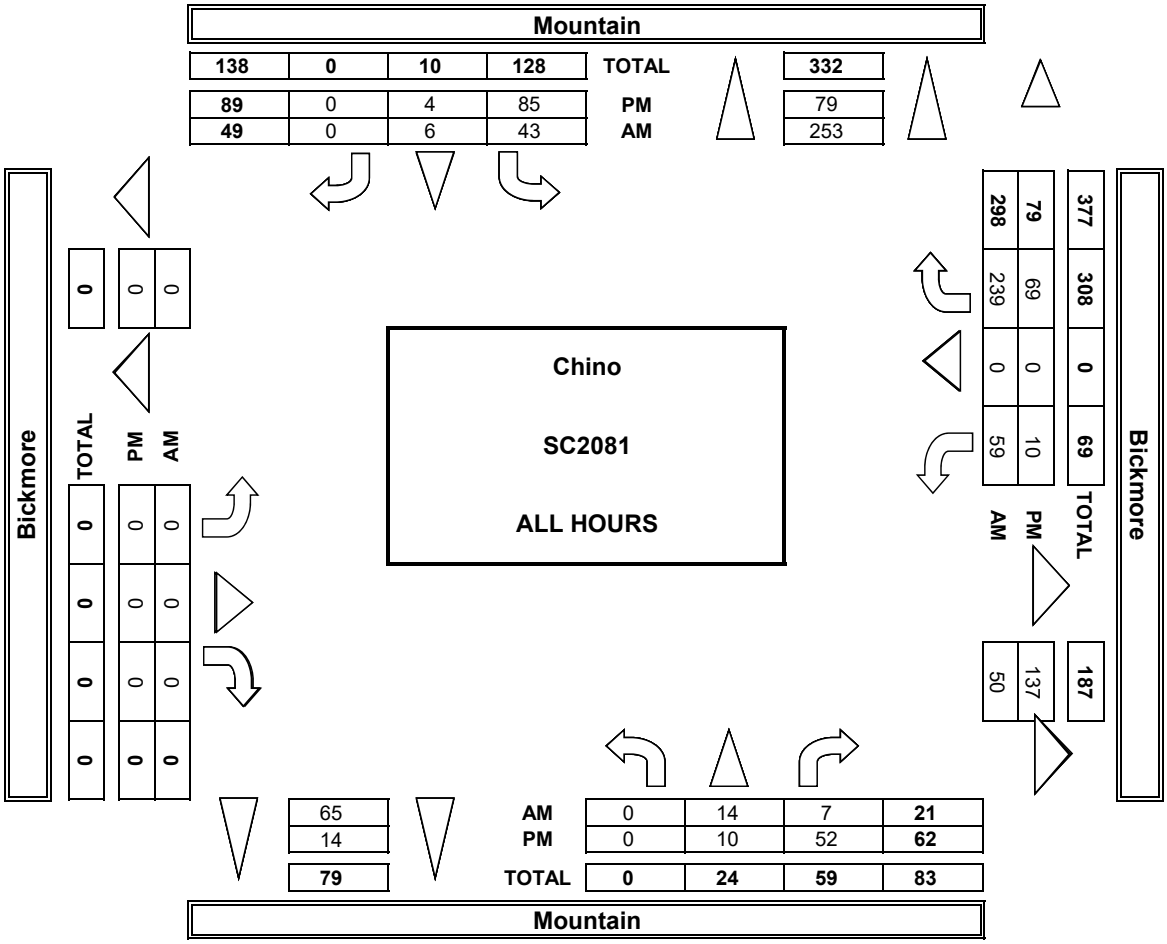
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

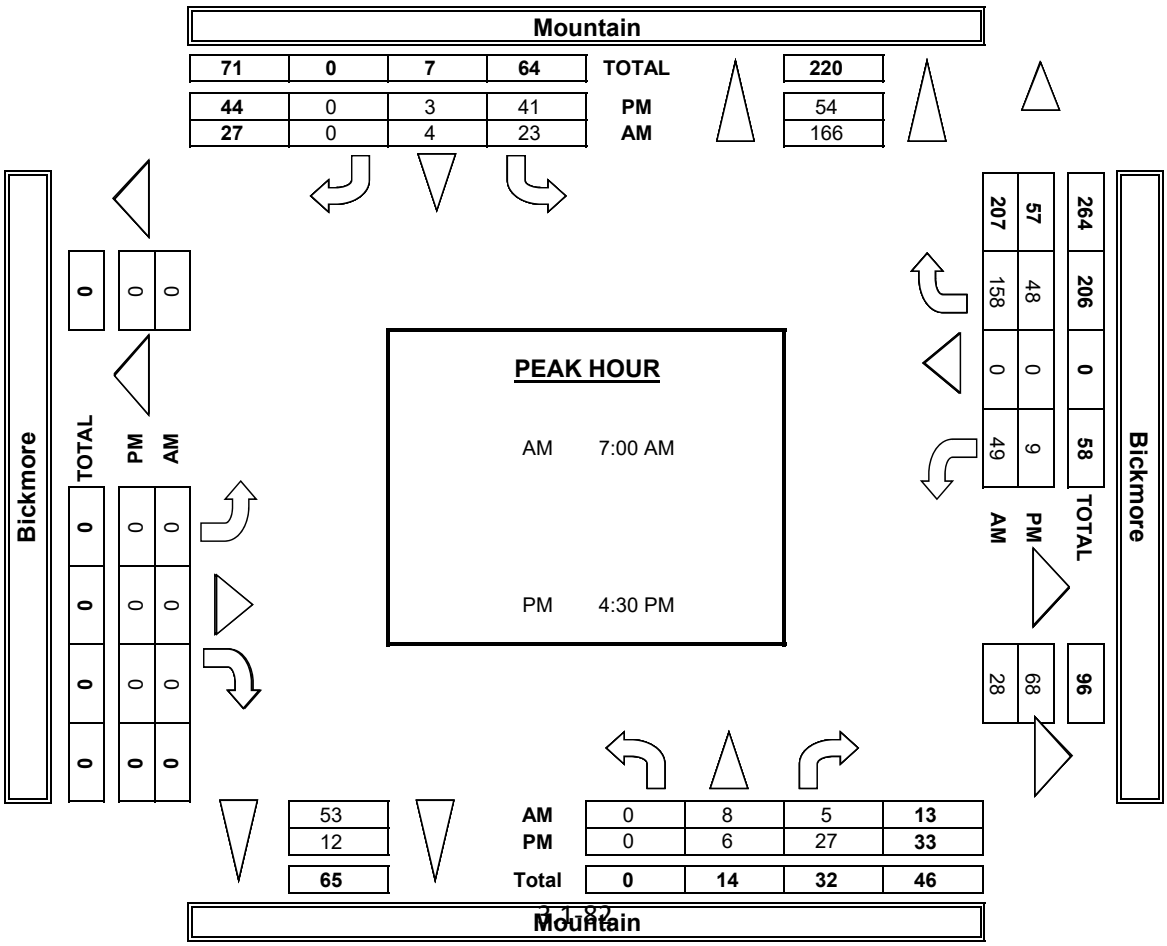


		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 2/12/19 TUESDAY	LOCATION:	Chino	PROJECT #:	SC2081
	NORTH & SOUTH:	Mountain	LOCATION #:	2
	EAST & WEST:	Bickmore	CONTROL:	STOP W

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND (Mountain)			SOUTHBOUND (Mountain)			EASTBOUND (Bickmore)			WESTBOUND (Bickmore)			
LANES:	NL X	NT 1	NR 0	SL 1	ST 1	SR X	EL X	ET X	ER X	WL 1	WT X	WR 1	TOTAL
7:00 AM	0	1	0	2	1	0	0	0	0	22	0	40	66
7:15 AM	0	1	2	4	0	0	0	0	0	12	0	35	54
7:30 AM	0	1	2	2	1	0	0	0	0	9	0	31	46
7:45 AM	0	1	1	4	1	0	0	0	0	4	0	39	50
8:00 AM	0	3	0	1	1	0	0	0	0	5	0	21	31
8:15 AM	0	0	1	2	0	0	0	0	0	2	0	21	26
8:30 AM	0	2	0	3	0	0	0	0	0	2	0	13	20
8:45 AM	0	0	1	3	0	0	0	0	0	1	0	12	17
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	9	7	21	4	0	0	0	0	57	0	212	310
APPROACH %	0%	56%	44%	84%	16%	0%	0%	0%	0%	21%	0%	79%	
APP/DEPART	16	/	221	25	/	61	0	/	28	269	/	0	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	4	5	12	3	0	0	0	0	47	0	145	216
APPROACH %	0%	44%	56%	80%	20%	0%	0%	0%	0%	24%	0%	76%	
PEAK HR FACTOR		0.750			0.750			0.000			0.774		0.818
APP/DEPART	9	/	149	15	/	50	0	/	17	192	/	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	1	5	7	1	0	0	0	0	0	0	5	19
4:15 PM	0	2	4	11	0	0	0	0	0	0	0	4	21
4:30 PM	0	1	8	12	1	0	0	0	0	2	0	13	37
4:45 PM	0	2	5	6	1	0	0	0	0	1	0	15	30
5:00 PM	0	1	7	7	0	0	0	0	0	0	0	7	22
5:15 PM	0	1	7	11	0	0	0	0	0	3	0	7	29
5:30 PM	0	0	8	15	0	0	0	0	0	1	0	4	28
5:45 PM	0	0	8	5	0	0	0	0	0	0	0	2	15
VOLUMES	0	8	52	74	3	0	0	0	0	7	0	57	201
APPROACH %	0%	13%	87%	96%	4%	0%	0%	0%	0%	11%	0%	89%	
APP/DEPART	60	/	65	77	/	10	0	/	126	64	/	0	0
BEGIN PEAK HR		4:30 PM											
VOLUMES	0	5	27	36	2	0	0	0	0	6	0	42	118
APPROACH %	0%	16%	84%	95%	5%	0%	0%	0%	0%	13%	0%	88%	
PEAK HR FACTOR		0.889			0.731			0.000			0.750		0.797
APP/DEPART	32	/	47	38	/	8	0	/	63	48	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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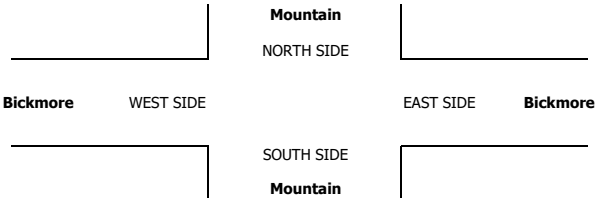


INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2081
2/12/19	NORTH & SOUTH:	Mountain	LOCATION #:	2
TUESDAY	EAST & WEST:	Bickmore	CONTROL:	STOP W

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS	NOTES:	AM PM MD OTHER OTHER	◄ W	▲ N S ▼	E ►

		NORTHBOUND (Mountain)			SOUTHBOUND (Mountain)			EASTBOUND (Bickmore)			WESTBOUND (Bickmore)				U-TURNS					RTOR			
	LANES:	NL X	NT 1	NR 0	SL 1	ST 1	SR X	EL X	ET X	ER X	WL 1	WT X	WR 1	TOTAL	NB	SB	EB	WB	TTL	NRR X	SRR X	ERR X	WRR X
AM	7:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
	7:30 AM	0	1	0	0	1	0	0	0	0	0	0	2	4	0	0	0	0	0	0	0	0	0
	7:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	1	1	0	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	3	0	0	0	0	0	0	0	2	5	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	3	0	5	2	0	0	0	0	0	0	9	19	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	100%	0%	71%	29%	0%	0%	0%	0%	0%	0%	100%										
	APP/DEPART	3	/	12	7	/	2	0	/	5	9	/	0	0									
	BEGIN PEAK HR		7:45 AM																				
	VOLUMES	0	2	0	4	1	0	0	0	0	0	0	4	11						0	0	0	0
	APPROACH %	0%	100%	0%	80%	20%	0%	0%	0%	0%	0%	0%	100%										
	PEAK HR FACTOR		0.250			0.417			0.000			0.500		0.550									
	APP/DEPART	2	/	6	5	/	1	0	/	4	4	/	0	0									
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	2	0	0	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	1	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	4	0	0	0	0	0	0	0	3	7	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	100%										
	APP/DEPART	0	/	3	4	/	0	0	/	4	3	/	0	0									
	BEGIN PEAK HR		4:45 PM																				
	VOLUMES	0	0	0	3	0	0	0	0	0	0	0	3	6						0	0	0	0
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	100%										
	PEAK HR FACTOR		0.000			0.375			0.000			0.750		0.500									
	APP/DEPART	0	/	3	3	/	0	0	/	3	3	/	0	0									

Mountain

NORTH SIDE

Bickmore WEST SIDE EAST SIDE **Bickmore**

SOUTH SIDE

Mountain

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2081
2/12/19	NORTH & SOUTH:	Mountain	LOCATION #:	2
TUESDAY	EAST & WEST:	Bickmore	CONTROL:	STOP W

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

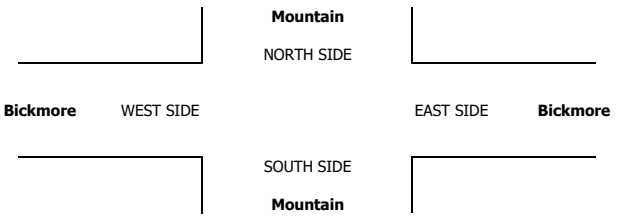
	NORTHBOUND Mountain			SOUTHBOUND Mountain			EASTBOUND Bickmore			WESTBOUND Bickmore			
LANES:	NL X	NT 1	NR 0	SL 1	ST 1	SR X	EL X	ET X	ER X	WL 1	WT X	WR 1	TOTAL
AM													
7:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
7:45 AM	0	1	0	2	0	0	0	0	0	0	0	0	3
8:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	2	0	0	0	0	0	0	0	0	2
8:30 AM	0	0	0	1	0	0	0	0	0	0	0	1	2
8:45 AM	0	0	0	2	0	0	0	0	0	0	0	0	2
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	1	0	11	0	0	0	0	0	0	0	1	13
APPROACH %	0%	100%	0%	100%	0%	0%	0%	0%	0%	0%	0%	100%	
APP/DEPART	1	/	2	11	/	0	0	/	11	1	/	0	0
BEGIN PEAK HR		7:45 AM											
VOLUMES	0	1	0	6	0	0	0	0	0	0	0	1	8
APPROACH %	0%	100%	0%	100%	0%	0%	0%	0%	0%	0%	0%	100%	
PEAK HR FACTOR		0.250			0.750			0.000			0.250		0.667
APP/DEPART	1	/	2	6	/	0	0	/	6	1	/	0	0
PM													
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	2	0	0	0	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
5:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	2
5:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
VOLUMES	0	0	0	4	0	0	0	0	0	1	0	2	7
APPROACH %	0%	0%	0%	100%	0%	0%	0%	0%	0%	33%	0%	67%	
APP/DEPART	0	/	2	4	/	1	0	/	4	3	/	0	0
BEGIN PEAK HR		4:45 PM											
VOLUMES	0	0	0	2	0	0	0	0	0	0	0	2	4
APPROACH %	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	100%	
PEAK HR FACTOR		0.000			0.500			0.000			0.250		0.500
APP/DEPART	0	/	2	2	/	0	0	/	2	2	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2081
2/12/19	NORTH & SOUTH:	Mountain	LOCATION #:	2
TUESDAY	EAST & WEST:	Bickmore	CONTROL:	STOP W

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

	NORTHBOUND (Mountain)			SOUTHBOUND (Mountain)			EASTBOUND (Bickmore)			WESTBOUND (Bickmore)			
LANES:	NL X	NT 1	NR 0	SL 1	ST 1	SR X	EL X	ET X	ER X	WL 1	WT X	WR 1	TOTAL
7:00 AM	0	0	0	1	0	0	0	0	0	2	0	4	7
7:15 AM	0	0	0	2	0	0	0	0	0	0	0	1	3
7:30 AM	0	0	0	1	0	0	0	0	0	0	0	2	3
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	1
8:00 AM	0	1	0	0	0	0	0	0	0	0	0	1	2
8:15 AM	0	0	0	1	0	0	0	0	0	0	0	1	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	3	3
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	3	3
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	1	0	5	0	0	0	0	0	2	0	16	24
APPROACH %	0%	100%	0%	100%	0%	0%	0%	0%	0%	11%	0%	89%	
APP/DEPART	1	/	17	5	/	2	0	/	5	18	/	0	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	0	0	4	0	0	0	0	0	2	0	8	14
APPROACH %	0%	0%	0%	100%	0%	0%	0%	0%	0%	20%	0%	80%	
PEAK HR FACTOR		0.000			0.500			0.000			0.417		0.500
APP/DEPART	0	/	8	4	/	2	0	/	4	10	/	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
4:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	2
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	1	2
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
5:00 PM	0	0	0	1	0	0	0	0	0	0	0	1	2
5:15 PM	0	0	0	0	1	0	0	0	0	1	0	2	4
5:30 PM	0	0	0	1	0	0	0	0	0	0	0	1	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
VOLUMES	0	2	0	3	1	0	0	0	0	2	0	7	15
APPROACH %	0%	100%	0%	75%	25%	0%	0%	0%	0%	22%	0%	78%	
APP/DEPART	2	/	9	4	/	3	0	/	3	9	/	0	0
BEGIN PEAK HR		4:30 PM											
VOLUMES	0	0	0	2	1	0	0	0	0	1	0	5	9
APPROACH %	0%	0%	0%	67%	33%	0%	0%	0%	0%	17%	0%	83%	
PEAK HR FACTOR		0.000			0.750			0.000			0.500		0.563
APP/DEPART	0	/	5	3	/	2	0	/	2	6	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2081
2/12/19	NORTH & SOUTH:	Mountain	LOCATION #:	2
TUESDAY	EAST & WEST:	Bickmore	CONTROL:	STOP W

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Mountain			SOUTHBOUND Mountain			EASTBOUND Bickmore			WESTBOUND Bickmore			
LANES:	NL X	NT 1	NR 0	SL 1	ST 1	SR X	EL X	ET X	ER X	WL 1	WT X	WR 1	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR		3:00 PM											
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2081
2/12/19	NORTH & SOUTH:	Mountain	LOCATION #:	2
TUESDAY	EAST & WEST:	Bickmore	CONTROL:	STOP W

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

	NORTHBOUND Mountain			SOUTHBOUND Mountain			EASTBOUND Bickmore			WESTBOUND Bickmore			
LANES:	NL X	NT 1	NR 0	SL 1	ST 1	SR X	EL X	ET X	ER X	WL 1	WT X	WR 1	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	1
7:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	1	0	0	0	0	0	0	0	1	2
APPROACH %	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	100%	
APP/DEPART	0	/	1	1	/	0	0	/	1	1	/	0	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	0	0	1	0	0	0	0	0	0	0	1	2
APPROACH %	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	100%	
PEAK HR FACTOR		0.000			0.250			0.000			0.250		0.500
APP/DEPART	0	/	1	1	/	0	0	/	1	1	/	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR		3:00 PM											
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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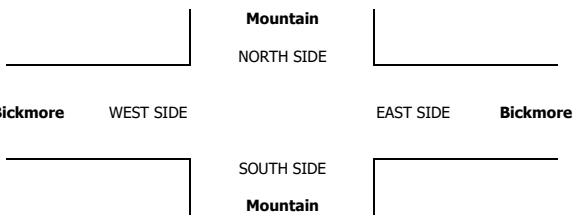
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wed, Feb 6, 19

LOCATION: Chino
NORTH & SOUTH: Mountain
EAST & WEST: El Prado

PROJECT #: SC2081
LOCATION #: 1
CONTROL: STOP S

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

☐ Add U-Turns to Left Turns

		NORTHBOUND (Mountain)			SOUTHBOUND (Mountain)			EASTBOUND (El Prado)			WESTBOUND (El Prado)			
	LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	16	1	30	0	0	58	1	106
	7:15 AM	0	0	0	3	0	9	3	21	0	0	54	0	90
	7:30 AM	0	0	0	0	0	8	2	23	0	0	62	0	95
	7:45 AM	0	0	0	0	0	3	2	25	0	0	67	1	98
	8:00 AM	0	0	0	0	0	7	1	35	0	0	46	2	91
	8:15 AM	0	0	0	0	0	0	1	20	0	0	52	0	73
	8:30 AM	0	0	0	1	0	3	0	25	0	0	36	0	65
	8:45 AM	0	0	0	0	0	1	1	29	0	0	31	3	65
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	4	0	47	11	208	0	0	406	7	683
	APPROACH %	0%	0%	0%	8%	0%	92%	5%	95%	0%	0%	98%	2%	
	APP/DEPART	0	/	18	51	/	0	219	/	212	413	/	453	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	3	0	36	8	99	0	0	241	2	389
	APPROACH %	0%	0%	0%	8%	0%	92%	7%	93%	0%	0%	99%	1%	
	PEAK HR FACTOR		0.000			0.609			0.863			0.893		0.917
	APP/DEPART	0	/	10	39	/	0	107	/	102	243	/	277	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	3	0	1	3	87	0	0	12	1	107
	4:15 PM	0	0	0	3	0	1	5	82	0	0	18	1	110
	4:30 PM	0	0	0	1	0	0	9	112	0	0	24	1	147
	4:45 PM	0	0	0	1	0	1	5	119	0	0	32	1	159
	5:00 PM	0	0	0	0	0	1	5	135	0	0	34	4	179
	5:15 PM	0	0	0	2	0	2	8	95	0	0	19	1	127
	5:30 PM	0	0	0	2	0	1	10	107	0	0	25	0	145
	5:45 PM	0	0	0	2	0	2	2	114	0	0	26	0	146
	VOLUMES	0	0	0	14	0	9	47	851	0	0	190	9	1,121
	APPROACH %	0%	0%	0%	61%	0%	39%	5%	95%	0%	0%	95%	5%	
	APP/DEPART	0	/	56	23	/	0	898	/	866	200	/	199	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	0	0	0	4	0	4	27	461	0	0	109	7	612
	APPROACH %	0%	0%	0%	50%	0%	50%	6%	94%	0%	0%	94%	6%	
	PEAK HR FACTOR		0.000			0.500			0.871			0.763		0.855
	APP/DEPART	0	/	34	8	/	0	488	/	465	116	/	113	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	1	1

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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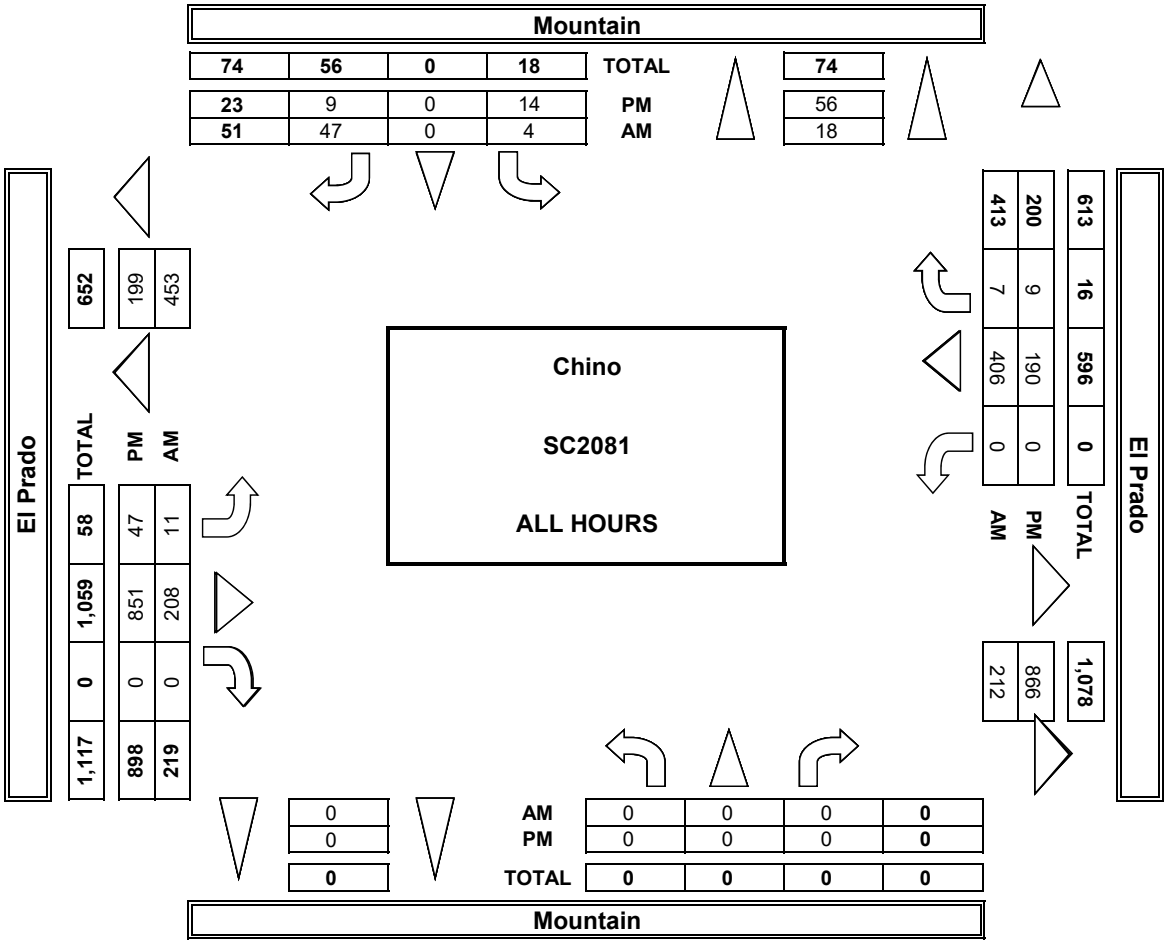
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

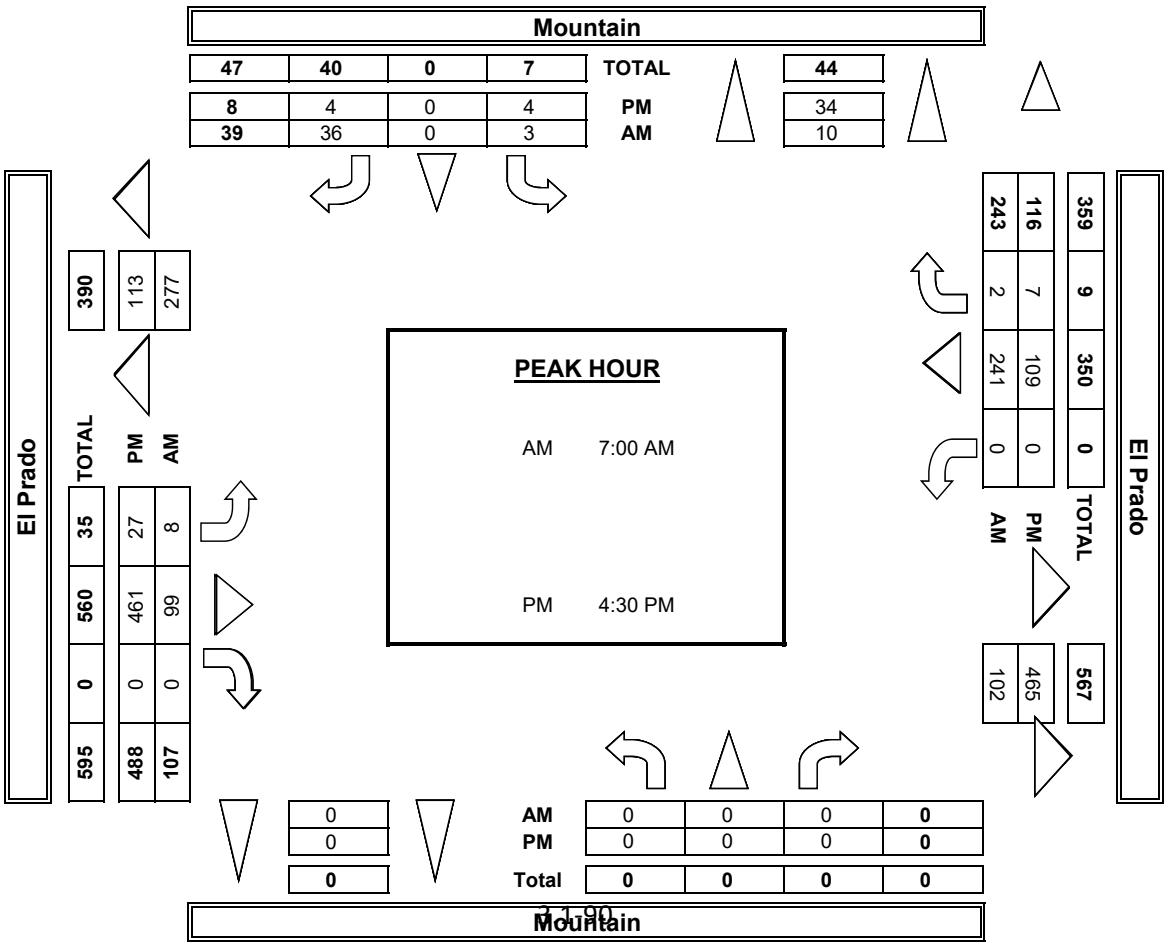


		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2081
2/6/19	NORTH & SOUTH:	Mountain	LOCATION #:	1
WEDNESDAY	EAST & WEST:	El Prado	CONTROL:	STOP S

CLASS 1:	NOTES:
PASSENGER VEHICLES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND (Mountain)			SOUTHBOUND (Mountain)			EASTBOUND (El Prado)			WESTBOUND (El Prado)			
LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL
AM 7:00 AM	0	0	0	0	0	14	1	25	0	0	53	1	94
7:15 AM	0	0	0	2	0	7	1	18	0	0	47	0	75
7:30 AM	0	0	0	0	0	6	1	19	0	0	57	0	83
7:45 AM	0	0	0	0	0	2	1	20	0	0	65	0	88
8:00 AM	0	0	0	0	0	7	1	24	0	0	41	2	75
8:15 AM	0	0	0	0	0	0	1	18	0	0	48	0	67
8:30 AM	0	0	0	0	0	3	0	22	0	0	33	0	58
8:45 AM	0	0	0	0	0	0	1	24	0	0	27	1	53
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	2	0	39	7	170	0	0	371	4	593
APPROACH %	0%	0%	0%	5%	0%	95%	4%	96%	0%	0%	99%	1%	
APP/DEPART	0	/	11	41	/	0	177	/	172	375	/	410	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	0	0	2	0	29	4	82	0	0	222	1	340
APPROACH %	0%	0%	0%	6%	0%	94%	5%	95%	0%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.554			0.827			0.858		0.904
APP/DEPART	0	/	5	31	/	0	86	/	84	223	/	251	0
PM 03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	2	0	1	3	85	0	0	12	1	104
4:15 PM	0	0	0	3	0	1	5	76	0	0	17	1	103
4:30 PM	0	0	0	1	0	0	7	108	0	0	24	1	141
4:45 PM	0	0	0	1	0	1	5	113	0	0	30	1	151
5:00 PM	0	0	0	0	0	1	4	130	0	0	32	1	168
5:15 PM	0	0	0	0	0	2	7	93	0	0	17	1	120
5:30 PM	0	0	0	1	0	1	10	104	0	0	24	0	140
5:45 PM	0	0	0	1	0	1	2	111	0	0	25	0	140
VOLUMES	0	0	0	9	0	8	43	820	0	0	181	6	1,068
APPROACH %	0%	0%	0%	53%	0%	47%	5%	95%	0%	0%	96%	3%	
APP/DEPART	0	/	49	17	/	0	863	/	830	188	/	189	0
BEGIN PEAK HR		4:30 PM											
VOLUMES	0	0	0	2	0	5	26	440	0	0	103	3	580
APPROACH %	0%	0%	0%	29%	0%	71%	6%	94%	0%	0%	96%	3%	
PEAK HR FACTOR		0.000			0.875			0.869			0.811		0.863
APP/DEPART	0	/	29	7	/	0	466	/	443	107	/	108	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	1	1

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

Mountain

NORTH SIDE

El Prado WEST SIDE EAST SIDE **El Prado**

SOUTH SIDE

Mountain

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2081
2/6/19	NORTH & SOUTH:	Mountain	LOCATION #:	1
WEDNESDAY	EAST & WEST:	El Prado	CONTROL:	STOP S

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS	NOTES:	AM / PM / MD / OTHER / OTHER	◄ W	▲ N / S ▼	E ►

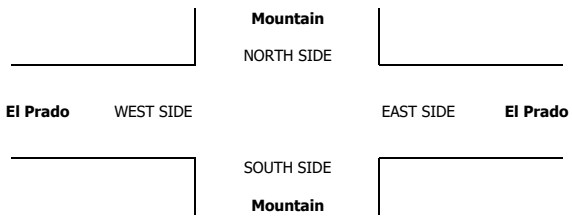
		NORTHBOUND (Mountain)			SOUTHBOUND (Mountain)			EASTBOUND (El Prado)			WESTBOUND (El Prado)			
	LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	1	0	3	0	0	2	0	6
	7:15 AM	0	0	0	0	0	2	1	2	0	0	5	0	10
	7:30 AM	0	0	0	0	0	2	1	3	0	0	3	0	9
	7:45 AM	0	0	0	0	0	0	1	3	0	0	2	0	6
	8:00 AM	0	0	0	0	0	0	0	8	0	0	4	0	12
	8:15 AM	0	0	0	0	0	0	0	1	0	0	4	0	5
	8:30 AM	0	0	0	0	0	0	0	3	0	0	2	0	5
	8:45 AM	0	0	0	0	0	0	0	4	0	0	2	0	6
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	5	3	27	0	0	24	0	59
	APPROACH %	0%	0%	0%	0%	0%	100%	10%	90%	0%	0%	100%	0%	
	APP/DEPART	0	/	3	5	/	0	30	/	27	24	/	29	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	0	0	4	3	16	0	0	14	0	37
	APPROACH %	0%	0%	0%	0%	0%	100%	16%	84%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.500			0.594			0.700		0.771
	APP/DEPART	0	/	3	4	/	0	19	/	16	14	/	18	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
	4:15 PM	0	0	0	0	0	0	0	4	0	0	1	0	5
	4:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
	4:45 PM	0	0	0	0	0	0	0	5	0	0	1	0	6
	5:00 PM	0	0	0	0	0	0	0	4	0	0	1	0	5
	5:15 PM	0	0	0	0	0	0	1	2	0	0	2	0	5
	5:30 PM	0	0	0	0	0	0	0	2	0	0	1	0	3
	5:45 PM	0	0	0	0	0	0	0	2	0	0	1	0	3
	VOLUMES	0	0	0	0	0	0	1	23	0	0	7	0	31
	APPROACH %	0%	0%	0%	0%	0%	0%	4%	96%	0%	0%	100%	0%	
	APP/DEPART	0	/	1	0	/	0	24	/	23	7	/	7	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	0	0	0	0	0	0	1	13	0	0	5	0	19
	APPROACH %	0%	0%	0%	0%	0%	0%	7%	93%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.700			0.625		0.792
	APP/DEPART	0	/	1	0	/	0	14	/	13	5	/	5	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2081
2/6/19	NORTH & SOUTH:	Mountain	LOCATION #:	1
WEDNESDAY	EAST & WEST:	El Prado	CONTROL:	STOP S

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Mountain			SOUTHBOUND Mountain			EASTBOUND El Prado			WESTBOUND El Prado			
	LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	2
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	1
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	2	0	2	0	0	0	0	4
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	2	/	0	2	/	2	0	/	2	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	2	0	1	0	0	0	0	3
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.500			0.250			0.000		0.375
	APP/DEPART	0	/	0	2	/	0	1	/	1	0	/	2	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	1	1	0	0	0	0	2
	APPROACH %	0%	0%	0%	0%	0%	0%	50%	50%	0%	0%	0%	0%	
	APP/DEPART	0	/	1	0	/	0	2	/	1	0	/	0	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	0	0	0	0	0	0	1	1	0	0	0	0	2
	APPROACH %	0%	0%	0%	0%	0%	0%	50%	50%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.500			0.000		0.500
	APP/DEPART	0	/	1	0	/	0	2	/	1	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2081
2/6/19	NORTH & SOUTH:	Mountain	LOCATION #:	1
WEDNESDAY	EAST & WEST:	El Prado	CONTROL:	STOP S

CLASS 4:	NOTES:
4 OR MORE AXLE TRUCKS	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Mountain			SOUTHBOUND Mountain			EASTBOUND El Prado			WESTBOUND El Prado			
LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL
7:00 AM	0	0	0	0	0	0	0	1	0	0	3	0	4
7:15 AM	0	0	0	1	0	0	1	0	0	0	1	0	3
7:30 AM	0	0	0	0	0	0	0	1	0	0	2	0	3
7:45 AM	0	0	0	0	0	0	0	1	0	0	0	1	2
8:00 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
8:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:30 AM	0	0	0	1	0	0	0	0	0	0	1	0	2
8:45 AM	0	0	0	0	0	1	0	0	0	0	2	2	5
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	2	0	1	1	5	0	0	10	3	22
APPROACH %	0%	0%	0%	67%	0%	33%	17%	83%	0%	0%	77%	23%	
APP/DEPART	0	/	4	3	/	0	6	/	7	13	/	11	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	0	0	1	0	0	1	3	0	0	6	1	12
APPROACH %	0%	0%	0%	100%	0%	0%	25%	75%	0%	0%	86%	14%	
PEAK HR FACTOR		0.000			0.250			1.000			0.583		0.750
APP/DEPART	0	/	2	1	/	0	4	/	4	7	/	6	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	1	2	0	0	0	0	3
4:45 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
5:00 PM	0	0	0	0	0	0	1	0	0	0	1	3	5
5:15 PM	0	0	0	2	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	1	0	0	0	1	0	0	0	0	2
5:45 PM	0	0	0	1	0	1	0	1	0	0	0	0	3
VOLUMES	0	0	0	5	0	1	2	7	0	0	2	3	20
APPROACH %	0%	0%	0%	83%	0%	17%	22%	78%	0%	0%	40%	60%	
APP/DEPART	0	/	5	6	/	0	9	/	12	5	/	3	0
BEGIN PEAK HR		4:15 PM											
VOLUMES	0	0	0	4	0	1	1	2	0	0	1	3	12
APPROACH %	0%	0%	0%	80%	0%	20%	33%	67%	0%	0%	25%	75%	
PEAK HR FACTOR		0.000			0.625			0.250			0.250		0.600
APP/DEPART	0	/	4	5	/	0	3	/	6	4	/	2	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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0	0	0	0
0	0	0	0
0	0	0	0
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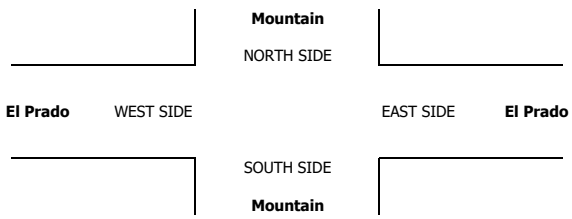
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2081
2/6/19	NORTH & SOUTH:	Mountain	LOCATION #:	1
WEDNESDAY	EAST & WEST:	El Prado	CONTROL:	STOP S

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Mountain			SOUTHBOUND Mountain			EASTBOUND El Prado			WESTBOUND El Prado			
	LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		3:00 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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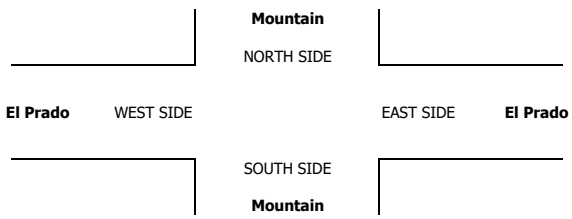
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2081
2/6/19	NORTH & SOUTH:	Mountain	LOCATION #:	1
WEDNESDAY	EAST & WEST:	El Prado	CONTROL:	STOP S

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

	NORTHBOUND Mountain			SOUTHBOUND Mountain			EASTBOUND El Prado			WESTBOUND El Prado			
LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	4	0	0	1	0	5
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
APP/DEPART	0	/	0	0	/	0	4	/	4	1	/	1	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	0	0	0	0	0	0	0	4	0	0	1	0	5
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.000			0.500			0.250		0.625
APP/DEPART	0	/	0	0	/	0	4	/	4	1	/	1	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR		3:00 PM											
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Jan 22, 19

LOCATION: Chino
NORTH & SOUTH: El Prado
EAST & WEST: Pine

PROJECT #: SC2056
LOCATION #: 10
CONTROL: STOP ALL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N / ◄ W / E ► / S ▼

☐ Add U-Turns to Left Turns

		NORTHBOUND (El Prado)			SOUTHBOUND (El Prado)			EASTBOUND (Pine)			WESTBOUND (Pine)			
	LANES:	NL X	NT X	NR X	SL 1	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 0	WR 1	TOTAL
AM	7:00 AM	0	0	0	29	0	0	0	0	0	0	0	59	88
AM	7:15 AM	0	0	0	24	0	0	0	0	0	0	0	86	110
AM	7:30 AM	0	0	0	37	0	0	0	0	0	0	0	77	114
AM	7:45 AM	0	0	0	50	0	0	0	0	0	0	0	66	116
AM	8:00 AM	0	0	0	61	0	0	0	0	0	0	0	74	135
AM	8:15 AM	0	0	0	51	0	0	0	0	0	0	0	77	128
AM	8:30 AM	0	0	0	43	0	0	0	0	0	0	0	59	102
AM	8:45 AM	0	0	0	47	0	0	0	0	0	0	0	30	77
AM	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	VOLUMES	0	0	0	342	0	0	0	0	0	0	0	528	871
AM	APPROACH %	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	100%	
AM	APP/DEPART	0	/	528	342	/	0	0	/	343	529	/	0	0
AM	BEGIN PEAK HR		7:30 AM											
AM	VOLUMES	0	0	0	199	0	0	0	0	0	0	0	294	493
AM	APPROACH %	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	100%	
AM	PEAK HR FACTOR		0.000			0.816			0.000			0.955		0.913
AM	APP/DEPART	0	/	294	199	/	0	0	/	199	294	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	89	0	0	0	0	0	0	0	14	103
PM	4:15 PM	0	0	0	87	0	0	0	0	0	0	0	19	106
PM	4:30 PM	0	0	0	125	0	0	0	0	0	0	0	28	153
PM	4:45 PM	0	0	0	107	0	1	0	1	0	0	0	26	135
PM	5:00 PM	0	0	0	115	0	0	0	0	0	0	0	23	138
PM	5:15 PM	0	0	0	121	0	0	0	0	0	0	0	18	139
PM	5:30 PM	0	0	0	121	0	0	0	0	0	0	0	20	141
PM	5:45 PM	0	0	0	101	0	0	0	0	0	0	0	25	126
PM	VOLUMES	0	0	0	866	0	1	0	1	0	0	0	173	1,041
PM	APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	100%	
PM	APP/DEPART	0	/	173	867	/	0	1	/	867	173	/	1	0
PM	BEGIN PEAK HR		4:30 PM											
PM	VOLUMES	0	0	0	468	0	1	0	1	0	0	0	95	565
PM	APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	100%	
PM	PEAK HR FACTOR		0.000			0.938			0.250			0.848		0.923
PM	APP/DEPART	0	/	95	469	/	0	1	/	469	95	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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0	0	0	0
0	0	0	0
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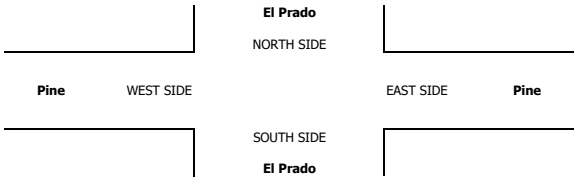
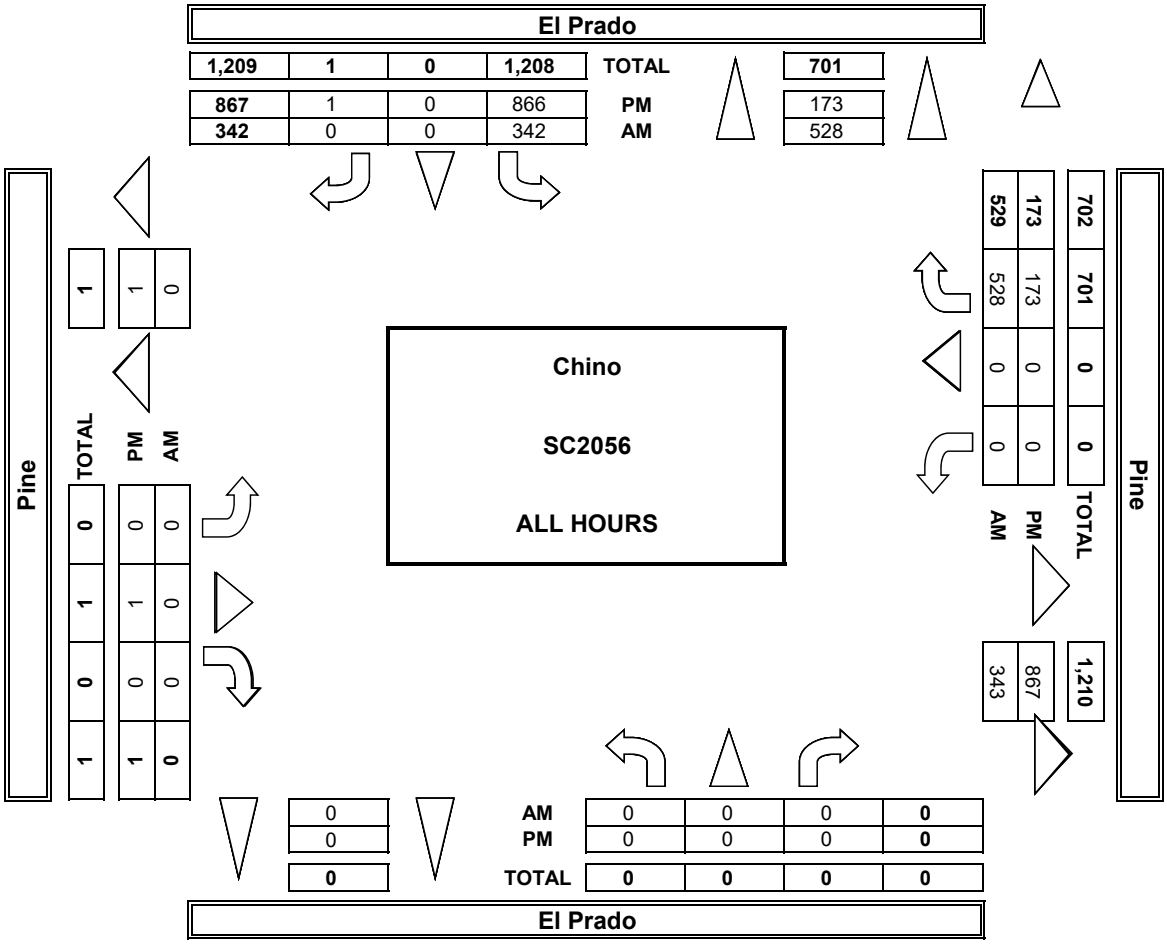
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

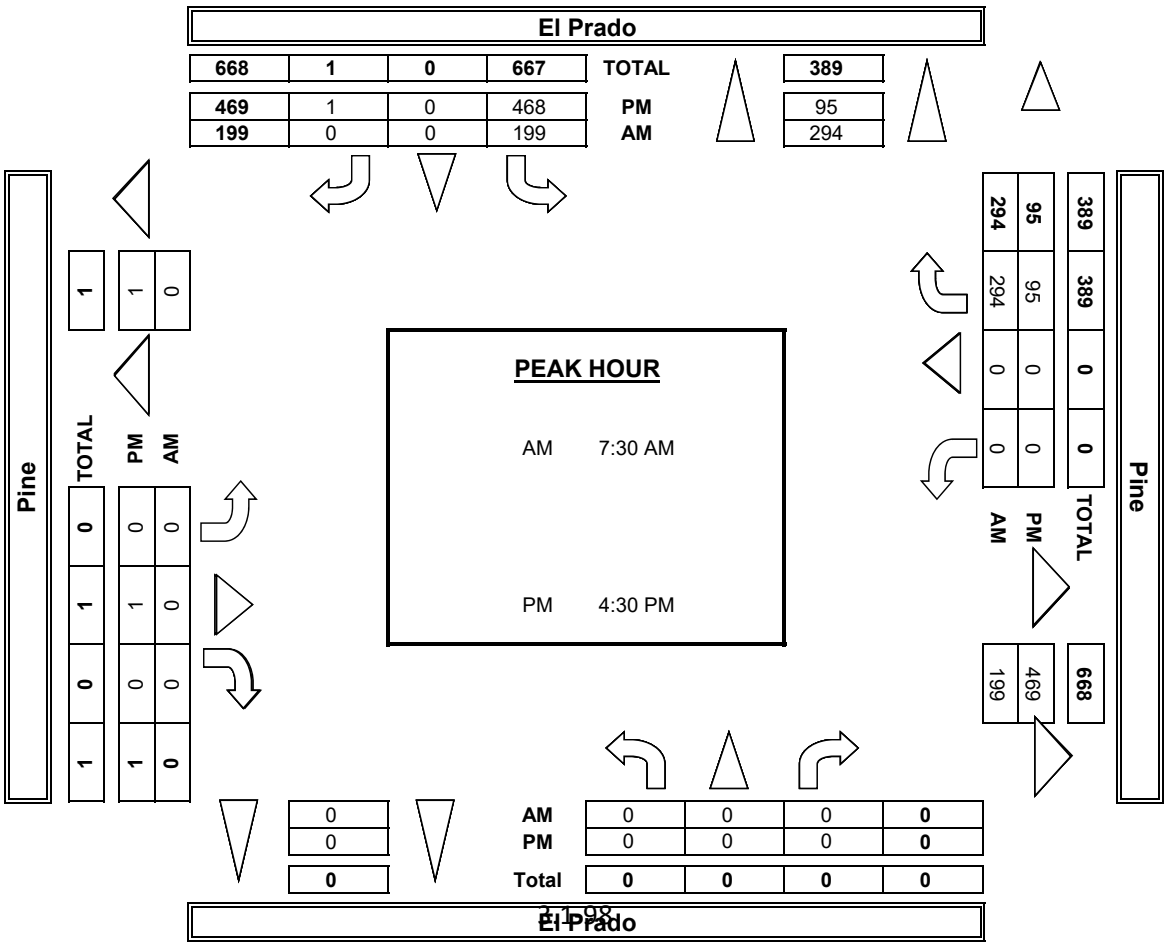


		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wed, Jan 30, 19

LOCATION: Chino
NORTH & SOUTH: Euclid
EAST & WEST: SR-60 WB Ramps

PROJECT #: SC2074
LOCATION #: 11
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

Add U-Turns to Left Turns

		NORTHBOUND (Euclid)			SOUTHBOUND (Euclid)			EASTBOUND (SR-60 WB Ramps)			WESTBOUND (SR-60 WB Ramps)				U-TURNS					RTOR			
	LANES:	NL 1	NT 2	NR X	SL X	ST 2	SR 1	EL X	ET X	ER X	WL 1,3	WT 0.3	WR 1,3	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL	NRR X	SRR 0	ERR X	WRR 0
AM	7:00 AM	70	159	0	0	190	129	0	0	0	94	1	90	733	0	0	0	0	0	0	69	0	46
AM	7:15 AM	90	178	0	0	195	123	0	0	0	66	1	100	753	1	0	0	0	1	0	54	0	61
AM	7:30 AM	58	200	0	0	216	80	0	0	0	83	0	88	725	1	0	0	0	1	0	36	0	47
AM	7:45 AM	47	237	0	0	206	103	0	0	0	112	1	117	823	1	0	0	0	1	0	56	0	47
AM	8:00 AM	73	206	0	0	218	111	0	0	0	96	1	85	790	0	0	0	0	0	0	68	0	51
AM	8:15 AM	67	171	0	0	226	81	0	0	0	100	1	64	710	2	0	0	0	2	0	35	0	42
AM	8:30 AM	47	186	0	0	175	93	0	0	0	96	0	72	669	2	0	0	0	2	0	51	0	38
AM	8:45 AM	65	180	0	0	149	87	0	0	0	96	3	98	678	1	0	0	0	1	0	52	0	56
AM	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	VOLUMES	517	1,517	0	0	1,575	807	0	0	0	743	8	714	5,881	8	0	0	0	8	0	421	0	388
AM	APPROACH %	25%	75%	0%	0%	66%	34%	0%	0%	0%	51%	1%	49%										
AM	APP/DEPART	2,034	/	2,231	2,382	/	2,326	0	/	0	1,465	/	1,324	0									
AM	BEGIN PEAK HR		7:15 AM																				
AM	VOLUMES	268	821	0	0	835	417	0	0	0	357	3	390	3,091						0	214	0	206
AM	APPROACH %	25%	75%	0%	0%	67%	33%	0%	0%	0%	48%	0%	52%										
AM	PEAK HR FACTOR		0.959			0.951			0.000			0.815		0.939									
AM	APP/DEPART	1,089	/	1,211	1,252	/	1,195	0	/	0	750	/	685	0									
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	51	228	0	0	231	119	0	0	0	102	0	90	821	2	0	0	0	2	0	53	0	50
PM	4:15 PM	47	241	0	0	197	102	0	0	0	123	1	72	783	4	0	0	0	4	0	48	0	48
PM	4:30 PM	48	226	0	0	206	83	0	0	0	116	2	104	785	3	0	0	0	3	0	29	0	47
PM	4:45 PM	38	247	0	0	233	87	0	0	0	129	0	88	822	2	0	0	0	2	0	41	0	43
PM	5:00 PM	52	234	0	0	252	132	0	0	0	109	0	86	865	1	0	0	0	1	0	64	0	43
PM	5:15 PM	53	243	0	0	228	140	0	0	0	101	0	90	855	1	0	0	0	1	0	63	0	41
PM	5:30 PM	58	209	0	0	192	120	0	0	0	106	0	81	766	0	0	0	0	0	0	44	0	31
PM	5:45 PM	54	207	0	0	241	123	0	0	0	92	0	75	792	1	0	0	0	1	0	42	0	31
PM	VOLUMES	401	1,835	0	0	1,780	906	0	0	0	878	3	686	6,489	14	0	0	0	14	0	384	0	334
PM	APPROACH %	18%	82%	0%	0%	66%	34%	0%	0%	0%	56%	0%	44%										
PM	APP/DEPART	2,236	/	2,521	2,686	/	2,672	0	/	0	1,567	/	1,296	0									
PM	BEGIN PEAK HR		4:30 PM																				
PM	VOLUMES	191	950	0	0	919	442	0	0	0	455	2	368	3,327						0	197	0	174
PM	APPROACH %	17%	83%	0%	0%	68%	32%	0%	0%	0%	55%	0%	45%										
PM	PEAK HR FACTOR		0.964			0.886			0.000			0.929		0.962									
PM	APP/DEPART	1,141	/	1,318	1,361	/	1,381	0	/	0	825	/	628	0									

Euclid

NORTH SIDE

SR-60 WB Ramps WEST SIDE EAST SIDE **SR-60 WB Ramps**

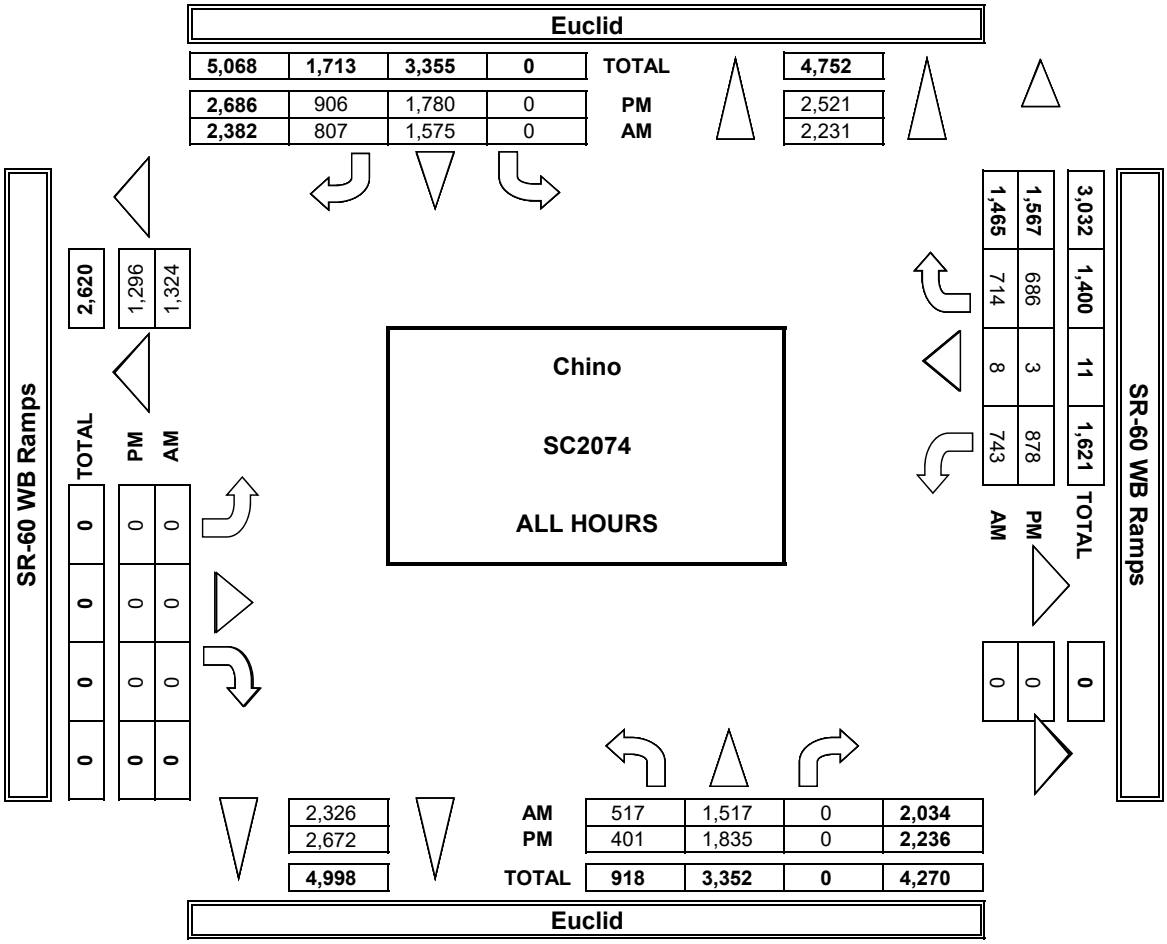
SOUTH SIDE

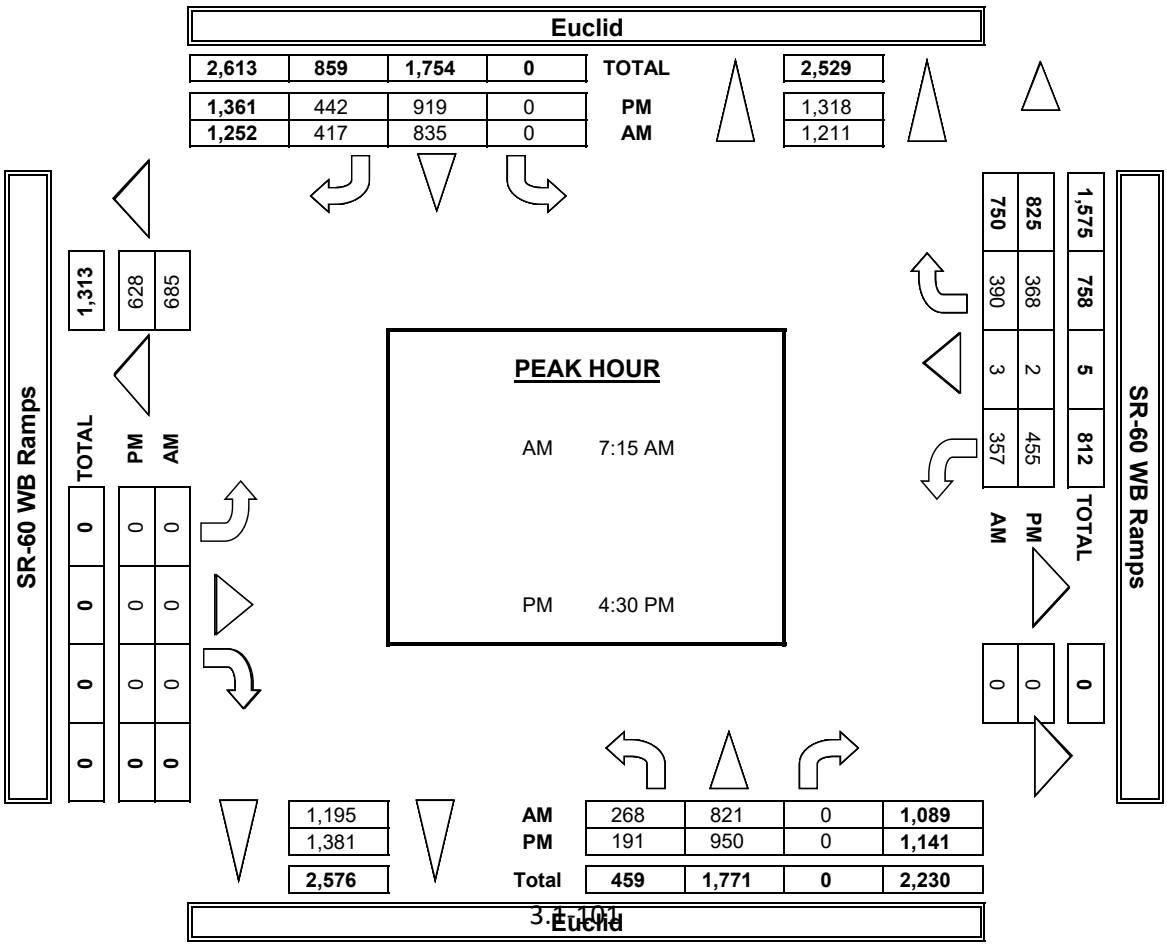
Euclid

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	7:15 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
AM	7:30 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
AM	7:45 AM	3	0	0	0	3	3	0	0	0	3	0	0	0	0	0
AM	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	8:15 AM	3	0	0	0	3	0	0	0	0	0	3	0	0	0	3
AM	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	8:45 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
AM	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	TOTAL	8	1	0	0	9	5	0	0	0	6	0	0	0	0	3
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	1	0	0	1	2	1	0	0	1	2	0	0	0	0	0
PM	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:45 PM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
PM	5:00 PM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
PM	5:15 PM	5	0	1	1	7	5	0	1	1	7	0	0	0	0	0
PM	5:30 PM	3	0	0	0	3	2	0	0	0	2	1	0	0	0	1
PM	5:45 PM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
PM	TOTAL	12	0	1	2	15	6	0	1	1	13	1	0	0	0	2

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2074
1/30/19	NORTH & SOUTH:	Euclid	LOCATION #:	11
WEDNESDAY	EAST & WEST:	SR-60 WB Ramps	CONTROL:	SIGNAL

CLASS 1:	NOTES:
PASSENGER VEHICLES	

AM / PM / MD / OTHER / OTHER — N / W / E / S

	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND SR-60 WB Ramps			WESTBOUND SR-60 WB Ramps			
LANES:	NL 1	NT 2	NR X	SL X	ST 2	SR 1	EL X	ET X	ER X	WL 1,3	WT 0.3	WR 1,3	TOTAL
7:00 AM	60	147	0	0	170	112	0	0	0	69	0	82	640
7:15 AM	75	164	0	0	180	107	0	0	0	46	0	95	667
7:30 AM	45	182	0	0	200	69	0	0	0	56	0	78	630
7:45 AM	38	224	0	0	182	93	0	0	0	75	0	110	722
8:00 AM	52	196	0	0	202	100	0	0	0	64	0	83	697
8:15 AM	52	147	0	0	202	70	0	0	0	64	1	57	593
8:30 AM	35	160	0	0	162	79	0	0	0	50	0	65	551
8:45 AM	50	155	0	0	130	69	0	0	0	62	2	92	560
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	407	1,375	0	0	1,428	699	0	0	0	486	3	662	5,060
APPROACH %	23%	77%	0%	0%	67%	33%	0%	0%	0%	42%	0%	58%	
APP/DEPART	1,782	/	2,037	2,127	/	1,921	0	/	0	1,151	/	1,102	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	208	766	0	0	764	369	0	0	0	241	0	366	2,716
APPROACH %	21%	78%	0%	0%	67%	33%	0%	0%	0%	40%	0%	60%	
PEAK HR FACTOR		0.931			0.938			0.000			0.820		0.940
APP/DEPART	976	/	1,132	1,133	/	1,007	0	/	0	607	/	577	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	41	208	0	0	212	102	0	0	0	78	0	82	723
4:15 PM	38	220	0	0	189	96	0	0	0	90	0	66	699
4:30 PM	34	200	0	0	190	76	0	0	0	98	1	94	693
4:45 PM	35	225	0	0	219	81	0	0	0	112	0	84	756
5:00 PM	46	218	0	0	234	125	0	0	0	89	0	80	792
5:15 PM	43	226	0	0	215	133	0	0	0	90	0	89	796
5:30 PM	52	198	0	0	181	115	0	0	0	94	0	75	715
5:45 PM	49	193	0	0	232	114	0	0	0	80	0	74	742
VOLUMES	338	1,688	0	0	1,672	842	0	0	0	731	1	644	5,916
APPROACH %	17%	83%	0%	0%	67%	33%	0%	0%	0%	53%	0%	47%	
APP/DEPART	2,026	/	2,332	2,514	/	2,417	0	/	0	1,376	/	1,167	0
BEGIN PEAK HR		4:45 PM											
VOLUMES	172	867	0	0	849	454	0	0	0	385	0	328	3,059
APPROACH %	16%	83%	0%	0%	65%	35%	0%	0%	0%	54%	0%	46%	
PEAK HR FACTOR		0.969			0.907			0.000			0.909		0.961
APP/DEPART	1,043	/	1,195	1,303	/	1,238	0	/	0	713	/	626	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
2	0	0	0	2
2	0	0	0	2
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
7	0	0	0	7
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
14	0	0	0	14

RTOR

NRR X	SRR 0	ERR X	WRR 0
0	57	0	43
0	47	0	60
0	28	0	41
0	51	0	46
0	61	0	49
0	29	0	37
0	41	0	35
0	38	0	53
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	352	0	364
0	187	0	196
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	49	0	45
0	46	0	43
0	28	0	43
0	39	0	40
0	61	0	40
0	60	0	40
0	43	0	30
0	38	0	30
0	364	0	311
0	203	0	150

Euclid

NORTH SIDE

SR-60 WB Ramps WEST SIDE EAST SIDE **SR-60 WB Ramps**

SOUTH SIDE

Euclid

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2074
1/30/19	NORTH & SOUTH:	Euclid	LOCATION #:	11
WEDNESDAY	EAST & WEST:	SR-60 WB Ramps	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

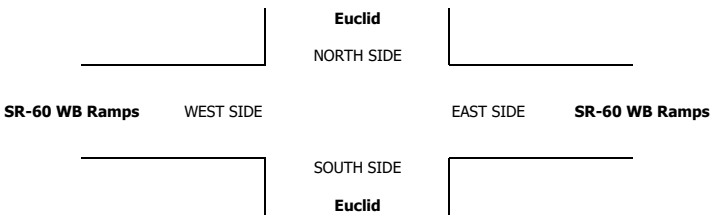
NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Euclid)			SOUTHBOUND (Euclid)			EASTBOUND (SR-60 WB Ramps)			WESTBOUND (SR-60 WB Ramps)			
	LANES:	NL 1	NT 2	NR X	SL X	ST 2	SR 1	EL X	ET X	ER X	WL 1,3	WT 0.3	WR 1,3	TOTAL
AM	7:00 AM	5	7	0	0	12	13	0	0	0	8	0	6	51
	7:15 AM	9	9	0	0	9	8	0	0	0	8	1	5	49
	7:30 AM	5	12	0	0	11	8	0	0	0	9	0	8	53
	7:45 AM	4	7	0	0	14	7	0	0	0	16	0	4	52
	8:00 AM	9	6	0	0	11	9	0	0	0	12	1	1	49
	8:15 AM	9	12	0	0	15	8	0	0	0	16	0	5	65
	8:30 AM	6	19	0	0	7	8	0	0	0	10	0	7	57
	8:45 AM	10	16	0	0	11	10	0	0	0	9	0	3	59
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	57	88	0	0	90	71	0	0	0	88	2	39	435
	APPROACH %	39%	61%	0%	0%	56%	44%	0%	0%	0%	68%	2%	30%	
	APP/DEPART	145	/	127	161	/	179	0	/	0	129	/	129	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	34	53	0	0	44	35	0	0	0	47	1	16	230
	APPROACH %	39%	61%	0%	0%	56%	44%	0%	0%	0%	73%	2%	25%	
	PEAK HR FACTOR		0.837			0.859			0.000			0.762		0.885
	APP/DEPART	87	/	69	79	/	91	0	/	0	64	/	70	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	4	12	0	0	13	14	0	0	0	7	0	3	53
	4:15 PM	4	13	0	0	8	3	0	0	0	11	0	4	43
	4:30 PM	8	18	0	0	12	4	0	0	0	6	0	9	57
	4:45 PM	2	16	0	0	9	5	0	0	0	6	0	1	39
	5:00 PM	4	13	0	0	15	4	0	0	0	7	0	3	46
	5:15 PM	4	9	0	0	12	6	0	0	0	1	0	1	33
	5:30 PM	2	8	0	0	5	2	0	0	0	3	0	4	24
	5:45 PM	1	12	0	0	7	6	0	0	0	2	0	1	29
	VOLUMES	29	101	0	0	81	44	0	0	0	43	0	26	324
	APPROACH %	22%	78%	0%	0%	65%	35%	0%	0%	0%	62%	0%	38%	
	APP/DEPART	130	/	127	125	/	124	0	/	0	69	/	73	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	18	59	0	0	42	26	0	0	0	30	0	17	192
	APPROACH %	23%	77%	0%	0%	62%	38%	0%	0%	0%	64%	0%	36%	
	PEAK HR FACTOR		0.740			0.630			0.000			0.783		0.842
	APP/DEPART	77	/	76	68	/	72	0	/	0	47	/	44	0

U-TURNS					
NB	SB	EB	WB	TTL	
0	0	0	0	0	
0	0	0	0	0	
1	0	0	0	1	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
1	0	0	0	1	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	

RTOR			
NRR X	SRR 0	ERR X	WRR 0
0	8	0	3
0	4	0	1
0	6	0	5
0	3	0	1
0	5	0	1
0	5	0	4
0	4	0	3
0	7	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	42	0	19
0	21	0	9
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	3	0	3
0	1	0	4
0	1	0	4
0	2	0	0
0	2	0	2
0	3	0	1
0	0	0	0
0	3	0	1
0	15	0	15
0	7	0	11



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2074
1/30/19	NORTH & SOUTH:	Euclid	LOCATION #:	11
WEDNESDAY	EAST & WEST:	SR-60 WB Ramps	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

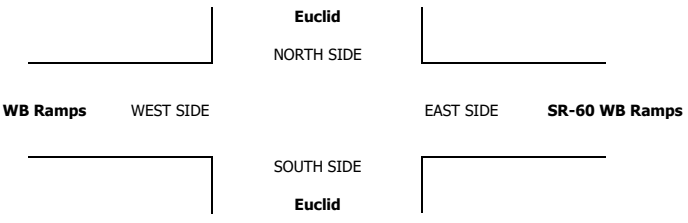
		NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND SR-60 WB Ramps			WESTBOUND SR-60 WB Ramps			
	LANES:	NL 1	NT 2	NR X	SL X	ST 2	SR 1	EL X	ET X	ER X	WL 1,3	WT 0.3	WR 1,3	TOTAL
AM	7:00 AM	1	1	0	0	3	0	0	0	0	5	0	1	11
	7:15 AM	3	0	0	0	0	4	0	0	0	2	0	0	9
	7:30 AM	0	0	0	0	1	0	0	0	0	3	0	0	4
	7:45 AM	1	2	0	0	7	0	0	0	0	1	0	0	11
	8:00 AM	5	0	0	0	2	0	0	0	0	1	0	1	9
	8:15 AM	2	2	0	0	3	0	0	0	0	0	0	0	7
	8:30 AM	1	2	0	0	3	1	0	0	0	7	0	0	14
	8:45 AM	3	2	0	0	2	2	0	0	0	4	0	1	14
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	16	9	0	0	21	7	0	0	0	23	0	3	79
	APPROACH %	64%	36%	0%	0%	75%	25%	0%	0%	0%	88%	0%	12%	
	APP/DEPART	25	/	12	28	/	44	0	/	0	26	/	23	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	11	6	0	0	10	3	0	0	0	12	0	2	44
	APPROACH %	65%	35%	0%	0%	77%	23%	0%	0%	0%	86%	0%	14%	
	PEAK HR FACTOR		0.850			0.813			0.000			0.500		0.786
	APP/DEPART	17	/	8	13	/	22	0	/	0	14	/	14	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	2	1	0	0	2	0	0	0	0	5	0	2	12
	4:15 PM	1	2	0	0	0	0	0	0	0	7	0	0	10
	4:30 PM	0	1	0	0	0	0	0	0	0	2	0	0	3
	4:45 PM	0	0	0	0	3	0	0	0	0	2	0	3	8
	5:00 PM	1	0	0	0	1	0	0	0	0	3	0	2	7
	5:15 PM	1	2	0	0	0	1	0	0	0	1	0	0	5
	5:30 PM	1	0	0	0	4	1	0	0	0	5	0	0	11
	5:45 PM	2	1	0	0	0	0	0	0	0	4	0	0	7
	VOLUMES	8	7	0	0	10	2	0	0	0	29	0	7	63
	APPROACH %	53%	47%	0%	0%	83%	17%	0%	0%	0%	81%	0%	19%	
	APP/DEPART	15	/	14	12	/	39	0	/	0	36	/	10	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	3	4	0	0	5	0	0	0	0	16	0	5	33
	APPROACH %	43%	57%	0%	0%	100%	0%	0%	0%	0%	76%	0%	24%	
	PEAK HR FACTOR		0.583			0.417			0.000			0.750		0.688
	APP/DEPART	7	/	9	5	/	21	0	/	0	21	/	3	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR 0	ERR X	WRR 0
0	0	0	0
0	2	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	0
0	1	0	0
0	2	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	5	0	1
0	3	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	4
0	0	0	4



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2074
1/30/19	NORTH & SOUTH:	Euclid	LOCATION #:	11
WEDNESDAY	EAST & WEST:	SR-60 WB Ramps	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND SR-60 WB Ramps			WESTBOUND SR-60 WB Ramps			
	LANES:	NL 1	NT 2	NR X	SL X	ST 2	SR 1	EL X	ET X	ER X	WL 1,3	WT 0.3	WR 1,3	TOTAL
AM	7:00 AM	4	3	0	0	4	4	0	0	0	12	1	1	29
	7:15 AM	3	4	0	0	4	4	0	0	0	10	0	0	25
	7:30 AM	8	6	0	0	4	3	0	0	0	15	0	2	38
	7:45 AM	4	4	0	0	3	3	0	0	0	20	1	3	38
	8:00 AM	7	4	0	0	3	2	0	0	0	19	0	0	35
	8:15 AM	4	8	0	0	5	3	0	0	0	20	0	2	42
	8:30 AM	5	5	0	0	2	5	0	0	0	29	0	0	46
	8:45 AM	2	7	0	0	6	6	0	0	0	21	1	2	45
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	37	41	0	0	31	30	0	0	0	146	3	10	298
	APPROACH %	47%	53%	0%	0%	51%	49%	0%	0%	0%	92%	2%	6%	
	APP/DEPART	78	/	51	61	/	177	0	/	0	159	/	70	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	18	24	0	0	16	16	0	0	0	89	1	4	168
	APPROACH %	43%	57%	0%	0%	50%	50%	0%	0%	0%	95%	1%	4%	
	PEAK HR FACTOR		0.875			0.667			0.000			0.810		0.913
	APP/DEPART	42	/	28	32	/	105	0	/	0	94	/	35	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	4	7	0	0	3	2	0	0	0	12	0	2	30
	4:15 PM	4	6	0	0	0	3	0	0	0	15	1	2	31
	4:30 PM	6	6	0	0	3	3	0	0	0	9	1	1	29
	4:45 PM	1	6	0	0	2	1	0	0	0	9	0	0	19
	5:00 PM	1	2	0	0	2	3	0	0	0	10	0	1	19
	5:15 PM	5	5	0	0	1	0	0	0	0	9	0	0	20
	5:30 PM	3	3	0	0	1	2	0	0	0	4	0	2	15
	5:45 PM	2	1	0	0	2	3	0	0	0	6	0	0	14
	VOLUMES	26	36	0	0	14	17	0	0	0	74	2	8	177
	APPROACH %	42%	58%	0%	0%	45%	55%	0%	0%	0%	88%	2%	10%	
	APP/DEPART	62	/	44	31	/	88	0	/	0	84	/	45	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	15	25	0	0	8	9	0	0	0	45	2	5	109
	APPROACH %	38%	63%	0%	0%	47%	53%	0%	0%	0%	87%	4%	10%	
	PEAK HR FACTOR		0.833			0.708			0.000			0.722		0.879
	APP/DEPART	40	/	30	17	/	53	0	/	0	52	/	26	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2074
1/30/19	NORTH & SOUTH:	Euclid	LOCATION #:	11
WEDNESDAY	EAST & WEST:	SR-60 WB Ramps	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND SR-60 WB Ramps			WESTBOUND SR-60 WB Ramps			
	LANES:	NL 1	NT 2	NR X	SL X	ST 2	SR 1	EL X	ET X	ER X	WL 1,3	WT 0.3	WR 1,3	TOTAL
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
#	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PM	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	BEGIN PEAK HR		3:00 PM											
PM	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PM	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
PM	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS					
NB	SB	EB	WB	TTL	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2074
1/30/19	NORTH & SOUTH:	Euclid	LOCATION #:	11
WEDNESDAY	EAST & WEST:	SR-60 WB Ramps	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND SR-60 WB Ramps			WESTBOUND SR-60 WB Ramps			
	LANES:	NL 1	NT 2	NR X	SL X	ST 2	SR 1	EL X	ET X	ER X	WL 1,3	WT 0.3	WR 1,3	TOTAL
AM	7:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
	7:15 AM	0	1	0	0	2	0	0	0	0	0	0	0	3
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	2	0	0	1	0	0	0	0	0	0	0	3
	8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	4	0	0	5	0	0	0	0	0	0	0	9
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	4	/	4	5	/	5	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	2	0	0	3	0	0	0	0	0	0	0	5
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.500			0.375			0.000			0.000		0.417
	APP/DEPART	2	/	2	3	/	3	0	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	1	1	0	0	0	0	0	1	3
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	1	0	0	1	0	0	0	0	1	0	0	3
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	5:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	3	0	0	3	1	0	0	0	1	0	1	9
	APPROACH %	0%	100%	0%	0%	75%	25%	0%	0%	0%	50%	0%	50%	
	APP/DEPART	3	/	4	4	/	4	0	/	0	2	/	1	0
	BEGIN PEAK HR		3:45 PM											
	VOLUMES	0	1	0	0	2	1	0	0	0	1	0	1	6
	APPROACH %	0%	100%	0%	0%	67%	33%	0%	0%	0%	50%	0%	50%	
	PEAK HR FACTOR		0.250			0.375			0.000			0.500		0.500
	APP/DEPART	1	/	2	3	/	3	0	/	0	2	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2074
Wed, Jan 30, 19	NORTH & SOUTH:	Euclid	LOCATION #:	12
	EAST & WEST:	SR-60 EB Ramps	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

Add U-Turns to Left Turns

		NORTHBOUND (Euclid)			SOUTHBOUND (Euclid)			EASTBOUND (SR-60 EB Ramps)			WESTBOUND (SR-60 EB Ramps)			
	LANES:	NL X	NT 2	NR 1	SL 1	ST 2	SR X	EL 1,5	ET 0	ER 0.5	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	170	121	104	180	0	58	0	47	0	0	0	680
	7:15 AM	0	199	142	89	171	0	69	0	49	0	0	0	719
	7:30 AM	0	189	130	96	204	0	68	1	54	0	0	0	742
	7:45 AM	0	174	113	69	248	0	111	1	46	0	0	0	762
	8:00 AM	0	181	127	91	224	0	97	0	75	0	0	0	795
	8:15 AM	0	161	123	84	244	0	74	0	46	0	0	0	732
	8:30 AM	0	153	120	77	197	0	81	0	50	0	0	0	678
	8:45 AM	0	167	132	52	193	0	73	0	46	0	0	0	663
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	1,394	1,008	662	1,661	0	631	2	413	0	0	0	5,771
	APPROACH %	0%	58%	42%	28%	72%	0%	60%	0%	39%	0%	0%	0%	
	APP/DEPART	2,402	/	2,033	2,323	/	2,074	1,046	/	1,664	0	/	0	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	0	705	493	340	920	0	350	2	221	0	0	0	3,031
	APPROACH %	0%	59%	41%	27%	73%	0%	61%	0%	39%	0%	0%	0%	
	PEAK HR FACTOR		0.939			0.960			0.833			0.000		0.953
	APP/DEPART	1,198	/	1,057	1,260	/	1,141	573	/	833	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	192	102	83	254	0	87	0	57	0	0	0	775
	4:15 PM	0	199	114	77	246	0	89	0	65	0	0	0	790
	4:30 PM	0	190	90	83	242	0	82	0	65	0	0	0	752
	4:45 PM	0	186	94	84	280	0	100	1	66	0	0	0	811
	5:00 PM	0	210	92	88	275	0	74	0	67	0	0	0	806
	5:15 PM	0	199	119	90	240	0	97	0	54	0	0	0	799
	5:30 PM	0	202	95	88	206	0	61	1	62	0	0	0	715
	5:45 PM	0	184	97	81	258	0	75	0	64	0	0	0	759
	VOLUMES	0	1,562	803	674	2,001	0	665	2	500	0	0	0	6,207
	APPROACH %	0%	66%	34%	25%	75%	0%	57%	0%	43%	0%	0%	0%	
	APP/DEPART	2,365	/	2,239	2,675	/	2,501	1,167	/	1,467	0	/	0	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	0	785	395	345	1,037	0	353	1	252	0	0	0	3,168
	APPROACH %	0%	67%	33%	25%	75%	0%	58%	0%	42%	0%	0%	0%	
	PEAK HR FACTOR		0.928			0.949			0.907			0.000		0.977
	APP/DEPART	1,180	/	1,142	1,382	/	1,289	606	/	737	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	
0	1	0	0	1
0	1	0	0	1
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	4	0	0	4
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	8	0	0	8
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	2	0	0	2
0	1	0	0	1
0	0	0	0	0
0	1	0	0	1
0	2	0	0	2
0	1	0	0	1
0	1	0	0	1
0	4	0	0	4
0	12	0	0	12

RTOR

NRR	SRR	ERR	WRR
0	X	0	X
28	0	17	0
41	0	23	0
49	0	13	0
31	0	5	0
53	0	19	0
56	0	15	0
55	0	13	0
63	0	15	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
376	0	120	0
189	0	52	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
47	0	13	0
63	0	25	0
39	0	13	0
44	0	13	0
50	0	22	0
57	0	18	0
42	0	24	0
46	0	16	0
388	0	144	0
190	0	66	0

Euclid

NORTH SIDE

SR-60 EB Ramps WEST SIDE EAST SIDE **SR-60 EB Ramps**

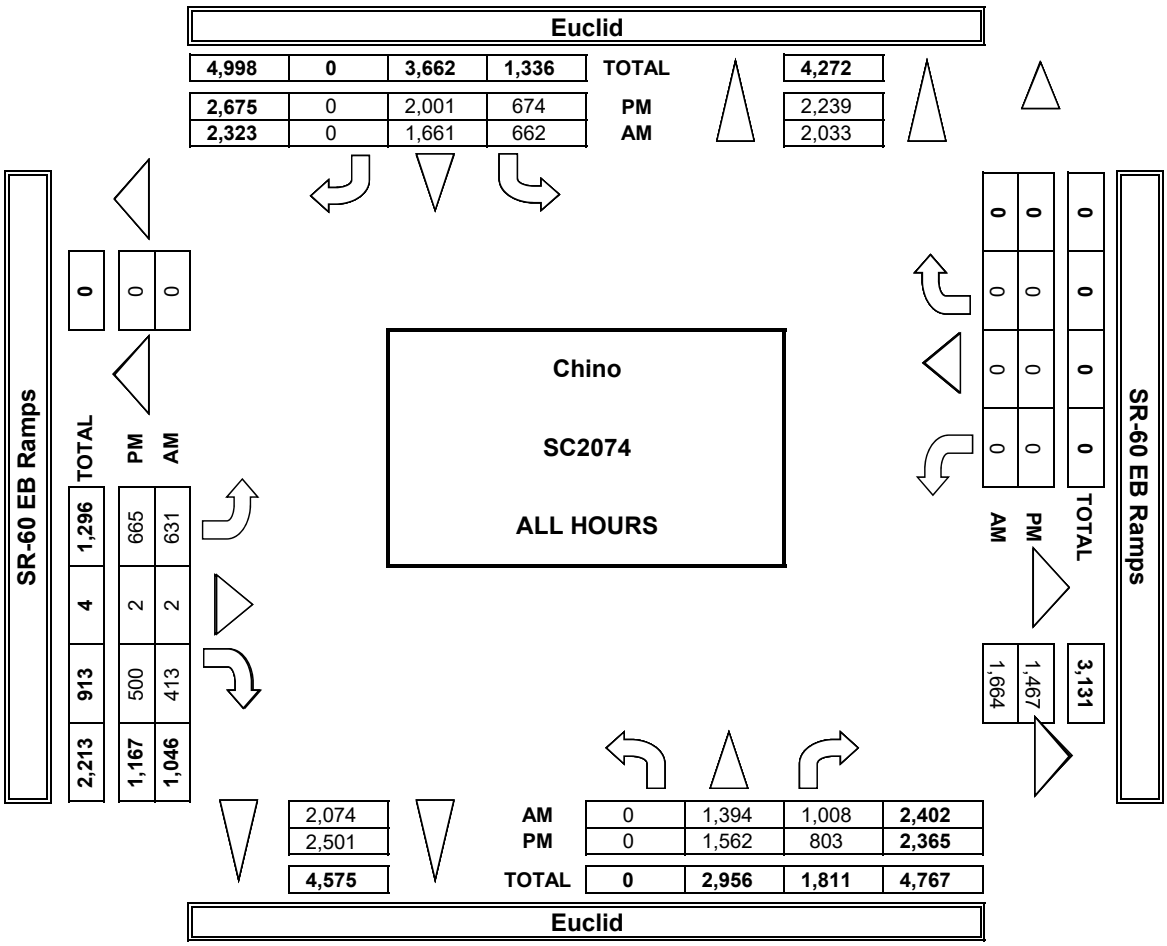
SOUTH SIDE

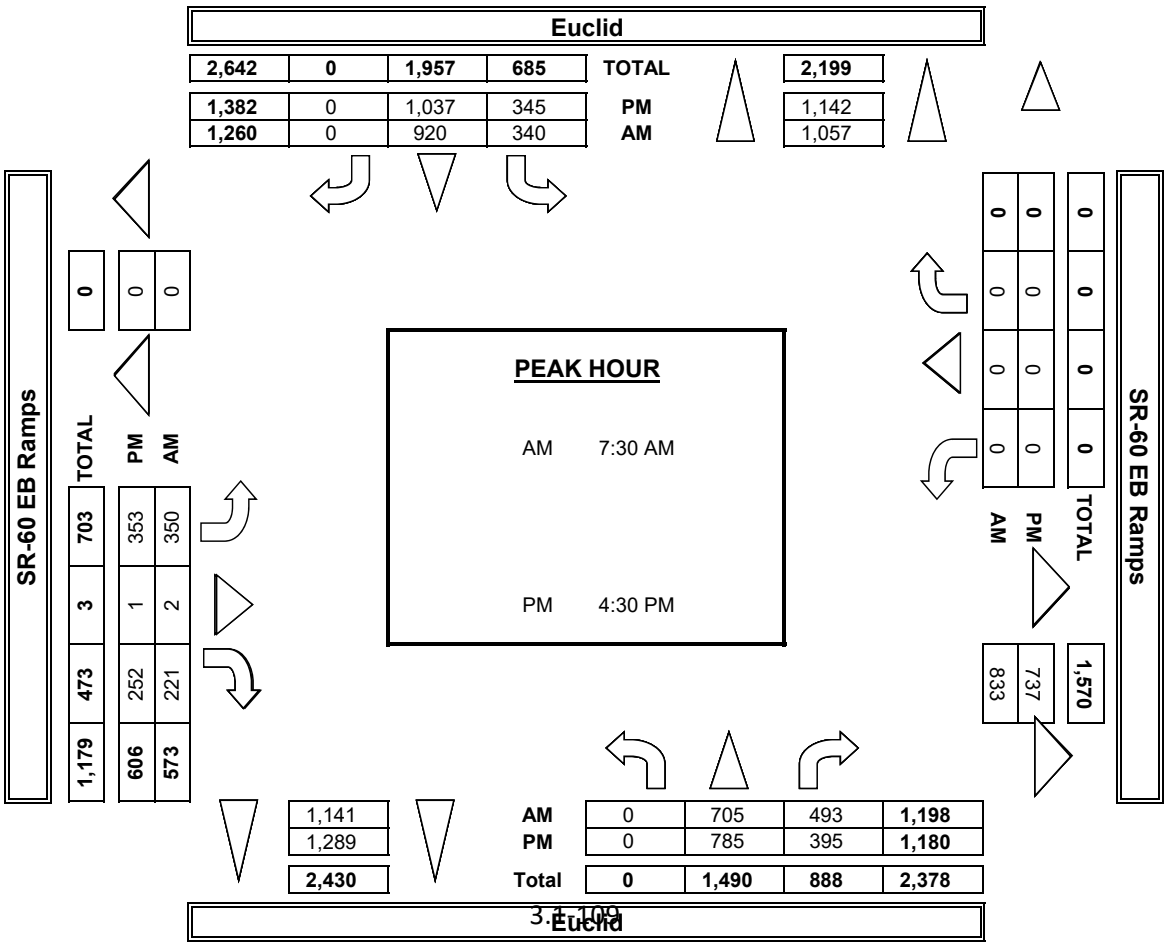
Euclid

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	7:30 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	7:45 AM	2	0	0	0	2	2	0	0	0	2	0	0	0	0	0
	8:00 AM	2	1	0	0	3	2	0	0	0	2	0	1	0	0	1
	8:15 AM	1	1	0	0	2	0	0	0	0	0	1	1	0	0	2
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	2	3	0	1	6	2	1	0	1	4	0	2	0	0	2
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	8	6	0	1	15	4	0	0	0	9	1	3	0	0	6
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	2	4	0	0	6	0	3	0	0	3	2	1	0	0	3
	4:15 PM	0	6	0	0	6	0	6	0	0	6	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	3	0	0	3	0	3	0	0	3	0	0	0	0	0
	5:00 PM	1	4	0	0	5	0	4	0	0	4	1	0	0	0	1
	5:15 PM	2	3	0	0	5	2	3	0	0	5	0	0	0	0	0
	5:30 PM	1	3	0	0	4	1	3	0	0	4	0	0	0	0	0
	5:45 PM	2	0	0	0	2	1	0	0	0	1	1	0	0	0	1
	TOTAL	8	23	0	0	31	2	10	0	0	26	1	0	0	0	5

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: 1/30/19 WEDNESDAY	LOCATION:	Chino	PROJECT #:	SC2074
	NORTH & SOUTH:	Euclid	LOCATION #:	12
	EAST & WEST:	SR-60 EB Ramps	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND (Euclid)			SOUTHBOUND (Euclid)			EASTBOUND (SR-60 EB Ramps)			WESTBOUND (SR-60 EB Ramps)			
LANES:	NL X	NT 2	NR 1	SL 1	ST 2	SR X	EL 1,5	ET 0	ER 0.5	WL X	WT X	WR X	TOTAL
7:00 AM	0	155	109	100	138	0	51	0	32	0	0	0	585
7:15 AM	0	178	120	87	138	0	62	0	33	0	0	0	618
7:30 AM	0	167	106	93	163	0	59	0	40	0	0	0	628
7:45 AM	0	161	83	61	195	0	102	1	39	0	0	0	642
8:00 AM	0	155	99	85	182	0	92	0	54	0	0	0	667
8:15 AM	0	132	89	79	188	0	64	0	33	0	0	0	585
8:30 AM	0	123	94	74	143	0	72	0	39	0	0	0	545
8:45 AM	0	139	87	45	147	0	60	0	29	0	0	0	507
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	1,210	787	624	1,294	0	562	1	299	0	0	0	4,777
APPROACH %	0%	61%	39%	33%	67%	0%	65%	0%	35%	0%	0%	0%	
APP/DEPART	1,997	/	1,780	1,918	/	1,593	862	/	1,404	0	/	0	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	0	661	408	323	678	0	315	1	166	0	0	0	2,555
APPROACH %	0%	62%	38%	32%	68%	0%	65%	0%	34%	0%	0%	0%	
PEAK HR FACTOR		0.897			0.940			0.825			0.000		0.958
APP/DEPART	1,069	/	979	1,004	/	844	482	/	732	0	/	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	171	69	79	213	0	78	0	49	0	0	0	659
4:15 PM	0	183	82	75	209	0	75	0	52	0	0	0	676
4:30 PM	0	165	64	78	213	0	66	0	52	0	0	0	638
4:45 PM	0	177	85	78	256	0	84	0	61	0	0	0	741
5:00 PM	0	197	69	82	241	0	66	0	56	0	0	0	711
5:15 PM	0	182	100	84	221	0	88	0	45	0	0	0	720
5:30 PM	0	191	79	84	190	0	56	1	55	0	0	0	656
5:45 PM	0	171	75	78	239	0	69	0	54	0	0	0	686
VOLUMES	0	1,437	623	638	1,782	0	582	1	424	0	0	0	5,487
APPROACH %	0%	70%	30%	26%	74%	0%	58%	0%	42%	0%	0%	0%	
APP/DEPART	2,060	/	2,029	2,420	/	2,206	1,007	/	1,252	0	/	0	0
BEGIN PEAK HR		4:45 PM											
VOLUMES	0	747	333	325	908	0	294	1	217	0	0	0	2,828
APPROACH %	0%	69%	31%	26%	73%	0%	57%	0%	42%	0%	0%	0%	
PEAK HR FACTOR		0.957			0.925			0.883			0.000		0.954
APP/DEPART	1,080	/	1,044	1,236	/	1,125	512	/	659	0	/	0	0

U-TURNS

	NB	SB	EB	WB	TTL
7:00 AM	0	1	0	0	1
7:15 AM	0	1	0	0	1
7:30 AM	0	0	0	0	0
7:45 AM	0	1	0	0	1
8:00 AM	0	1	0	0	1
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	4	0	0	4
9:00 AM	0	0	0	0	0
9:15 AM	0	0	0	0	0
9:30 AM	0	0	0	0	0
9:45 AM	0	0	0	0	0
	0	8	0	0	8
03:00 PM	0	0	0	0	0
3:15 PM	0	0	0	0	0
3:30 PM	0	0	0	0	0
3:45 PM	0	0	0	0	0
4:00 PM	0	2	0	0	2
4:15 PM	0	1	0	0	1
4:30 PM	0	0	0	0	0
4:45 PM	0	1	0	0	1
5:00 PM	0	0	0	0	0
5:15 PM	0	1	0	0	1
5:30 PM	0	1	0	0	1
5:45 PM	0	4	0	0	4
	0	10	0	0	10

RTOR

	NRR 0	SRR X	ERR 0	WRR X
7:00 AM	27	0	10	0
7:15 AM	35	0	18	0
7:30 AM	39	0	8	0
7:45 AM	24	0	4	0
8:00 AM	45	0	12	0
8:15 AM	37	0	11	0
8:30 AM	42	0	11	0
8:45 AM	43	0	9	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
	292	0	83	0
	143	0	42	0
03:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	34	0	12	0
4:15 PM	45	0	20	0
4:30 PM	33	0	11	0
4:45 PM	40	0	13	0
5:00 PM	37	0	17	0
5:15 PM	49	0	14	0
5:30 PM	41	0	20	0
5:45 PM	36	0	12	0
	315	0	119	0
	167	0	64	0

Euclid

NORTH SIDE

SR-60 EB Ramps WEST SIDE EAST SIDE **SR-60 EB Ramps**

SOUTH SIDE

Euclid

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2074
1/30/19	NORTH & SOUTH:	Euclid	LOCATION #:	12
WEDNESDAY	EAST & WEST:	SR-60 EB Ramps	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND SR-60 EB Ramps			WESTBOUND SR-60 EB Ramps			
	LANES:	NL X	NT 2	NR 1	SL 1	ST 2	SR X	EL 1,5	ET 0	ER 0.5	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	9	6	3	18	0	3	0	6	0	0	0	45
	7:15 AM	0	14	9	1	16	0	4	0	7	0	0	0	51
	7:30 AM	0	12	5	1	20	0	5	0	4	0	0	0	47
	7:45 AM	0	6	14	5	25	0	5	0	4	0	0	0	59
	8:00 AM	0	13	12	3	20	0	2	0	10	0	0	0	60
	8:15 AM	0	18	14	2	30	0	3	0	6	0	0	0	73
	8:30 AM	0	19	9	1	14	0	7	0	5	0	0	0	55
	8:45 AM	0	19	26	4	16	0	7	0	7	0	0	0	79
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	110	95	20	159	0	36	0	49	0	0	0	469
	APPROACH %	0%	54%	46%	11%	89%	0%	42%	0%	58%	0%	0%	0%	
	APP/DEPART	205	/	146	179	/	208	85	/	115	0	/	0	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	69	61	10	80	0	19	0	28	0	0	0	267
	APPROACH %	0%	53%	47%	11%	89%	0%	40%	0%	60%	0%	0%	0%	
	PEAK HR FACTOR		0.722			0.703			0.839			0.000		0.845
	APP/DEPART	130	/	88	90	/	108	47	/	71	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	10	8	3	18	0	6	0	2	0	0	0	47
	4:15 PM	0	6	12	2	15	0	11	0	3	0	0	0	49
	4:30 PM	0	16	3	2	16	0	11	0	5	0	0	0	53
	4:45 PM	0	5	0	4	10	0	13	0	3	0	0	0	35
	5:00 PM	0	10	5	5	19	0	6	0	4	0	0	0	49
	5:15 PM	0	5	0	6	8	0	7	0	2	0	0	0	28
	5:30 PM	0	7	3	2	5	0	2	0	5	0	0	0	24
	5:45 PM	0	8	6	3	6	0	5	0	6	0	0	0	34
	VOLUMES	0	67	37	27	97	0	61	0	30	0	0	0	319
	APPROACH %	0%	64%	36%	22%	78%	0%	67%	0%	33%	0%	0%	0%	
	APP/DEPART	104	/	130	124	/	127	91	/	62	0	/	0	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	0	37	20	11	60	0	41	0	15	0	0	0	186
	APPROACH %	0%	65%	35%	15%	82%	0%	73%	0%	27%	0%	0%	0%	
	PEAK HR FACTOR		0.750			0.760			0.875			0.000		0.877
	APP/DEPART	57	/	80	73	/	75	56	/	31	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2074
1/30/19	NORTH & SOUTH:	Euclid	LOCATION #:	12
WEDNESDAY	EAST & WEST:	SR-60 EB Ramps	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND SR-60 EB Ramps			WESTBOUND SR-60 EB Ramps			
	LANES:	NL X	NT 2	NR 1	SL 1	ST 2	SR X	EL 1,5	ET 0	ER 0.5	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	1	0	0	8	0	1	0	1	0	0	0	11
	7:15 AM	0	2	4	0	2	0	0	0	1	0	0	0	9
	7:30 AM	0	0	6	0	4	0	0	0	4	0	0	0	14
	7:45 AM	0	3	7	1	7	0	0	0	1	0	0	0	19
	8:00 AM	0	5	4	2	1	0	0	0	4	0	0	0	16
	8:15 AM	0	3	4	1	2	0	1	0	3	0	0	0	14
	8:30 AM	0	3	1	1	9	0	0	0	1	0	0	0	15
	8:45 AM	0	4	3	0	6	0	2	0	5	0	0	0	20
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	21	29	5	39	0	4	0	20	0	0	0	118
	APPROACH %	0%	42%	58%	11%	89%	0%	17%	0%	83%	0%	0%	0%	
	APP/DEPART	50	/	25	44	/	59	24	/	34	0	/	0	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	15	12	4	18	0	3	0	13	0	0	0	65
	APPROACH %	0%	56%	44%	18%	82%	0%	19%	0%	81%	0%	0%	0%	
	PEAK HR FACTOR		0.750			0.550			0.571			0.000		0.813
	APP/DEPART	27	/	18	22	/	31	16	/	16	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	3	2	0	7	0	0	0	2	0	0	0	14
	4:15 PM	0	2	3	0	7	0	1	0	3	0	0	0	16
	4:30 PM	0	0	2	0	2	0	1	0	1	0	0	0	6
	4:45 PM	0	0	1	2	3	0	0	0	0	0	0	0	6
	5:00 PM	0	1	1	1	3	0	0	0	2	0	0	0	8
	5:15 PM	0	3	3	0	1	0	0	0	1	0	0	0	8
	5:30 PM	0	1	2	2	7	0	0	0	1	0	0	0	13
	5:45 PM	0	3	2	0	4	0	0	0	1	0	0	0	10
	VOLUMES	0	13	16	5	34	0	2	0	11	0	0	0	81
	APPROACH %	0%	45%	55%	13%	87%	0%	15%	0%	85%	0%	0%	0%	
	APP/DEPART	29	/	15	39	/	45	13	/	21	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	5	8	2	19	0	2	0	6	0	0	0	42
	APPROACH %	0%	38%	62%	10%	90%	0%	25%	0%	75%	0%	0%	0%	
	PEAK HR FACTOR		0.650			0.750			0.500			0.000		0.656
	APP/DEPART	13	/	7	21	/	25	8	/	10	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR X	ERR 0	WRR X
0	0	1	0
1	0	1	0
1	0	4	0
1	0	0	0
1	0	1	0
2	0	2	0
0	0	0	0
1	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
7	0	10	0
4	0	4	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
4	0	3	0
2	0	2	0

Euclid

NORTH SIDE

SR-60 EB Ramps WEST SIDE EAST SIDE **SR-60 EB Ramps**

SOUTH SIDE

Euclid

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2074
1/30/19	NORTH & SOUTH:	Euclid	LOCATION #:	12
WEDNESDAY	EAST & WEST:	SR-60 EB Ramps	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND SR-60 EB Ramps			WESTBOUND SR-60 EB Ramps			
	LANES:	NL X	NT 2	NR 1	SL 1	ST 2	SR X	EL 1,5	ET 0	ER 0.5	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	4	6	1	15	0	3	0	6	0	0	0	35
	7:15 AM	0	4	9	1	13	0	3	0	8	0	0	0	38
	7:30 AM	0	10	13	2	17	0	4	1	5	0	0	0	52
	7:45 AM	0	4	9	2	21	0	4	0	2	0	0	0	42
	8:00 AM	0	8	12	1	21	0	3	0	7	0	0	0	52
	8:15 AM	0	6	16	2	23	0	6	0	4	0	0	0	57
	8:30 AM	0	8	16	1	30	0	2	0	4	0	0	0	61
	8:45 AM	0	5	16	3	24	0	4	0	5	0	0	0	57
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	49	97	13	164	0	29	1	41	0	0	0	394
	APPROACH %	0%	34%	66%	7%	93%	0%	41%	1%	58%	0%	0%	0%	
	APP/DEPART	146	/	78	177	/	205	71	/	111	0	/	0	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	27	60	7	98	0	15	0	20	0	0	0	227
	APPROACH %	0%	31%	69%	7%	93%	0%	43%	0%	57%	0%	0%	0%	
	PEAK HR FACTOR		0.906			0.847			0.875			0.000		0.930
	APP/DEPART	87	/	42	105	/	118	35	/	67	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	8	23	1	15	0	3	0	4	0	0	0	54
	4:15 PM	0	8	17	0	15	0	2	0	7	0	0	0	49
	4:30 PM	0	8	21	3	9	0	4	0	7	0	0	0	52
	4:45 PM	0	4	8	0	11	0	3	1	2	0	0	0	29
	5:00 PM	0	1	17	0	12	0	2	0	5	0	0	0	37
	5:15 PM	0	8	16	0	10	0	2	0	6	0	0	0	42
	5:30 PM	0	3	11	0	3	0	3	0	1	0	0	0	21
	5:45 PM	0	2	14	0	9	0	1	0	3	0	0	0	29
	VOLUMES	0	42	127	4	84	0	20	1	35	0	0	0	313
	APPROACH %	0%	25%	75%	5%	95%	0%	36%	2%	63%	0%	0%	0%	
	APP/DEPART	169	/	62	88	/	119	56	/	132	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	28	69	4	50	0	12	1	20	0	0	0	184
	APPROACH %	0%	29%	71%	7%	93%	0%	36%	3%	61%	0%	0%	0%	
	PEAK HR FACTOR		0.782			0.844			0.750			0.000		0.852
	APP/DEPART	97	/	40	54	/	70	33	/	74	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR X	ERR 0	WRR X
0	0	4	0
3	0	3	0
8	0	1	0
2	0	0	0
5	0	2	0
9	0	1	0
6	0	0	0
7	0	3	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
40	0	14	0
27	0	6	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
49	0	10	0
28	0	3	0

Euclid

NORTH SIDE

SR-60 EB Ramps WEST SIDE EAST SIDE **SR-60 EB Ramps**

SOUTH SIDE

Euclid

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2074
1/30/19	NORTH & SOUTH:	Euclid	LOCATION #:	12
WEDNESDAY	EAST & WEST:	SR-60 EB Ramps	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

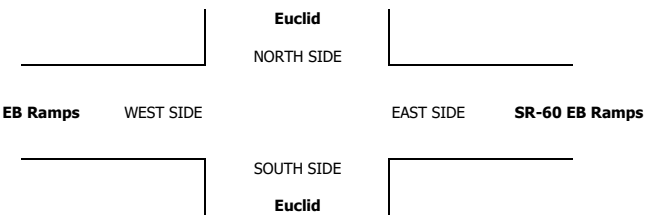
		NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND SR-60 EB Ramps			WESTBOUND SR-60 EB Ramps			
	LANES:	NL X	NT 2	NR 1	SL 1	ST 2	SR X	EL 1,5	ET 0	ER 0.5	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		3:00 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR X	ERR 0	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2074
1/30/19	NORTH & SOUTH:	Euclid	LOCATION #:	12
WEDNESDAY	EAST & WEST:	SR-60 EB Ramps	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND SR-60 EB Ramps			WESTBOUND SR-60 EB Ramps			
	LANES:	NL X	NT 2	NR 1	SL 1	ST 2	SR X	EL 1,5	ET 0	ER 0.5	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	1	0	0	1	0	0	0	2	0	0	0	4
	7:15 AM	0	1	0	0	2	0	0	0	0	0	0	0	3
	7:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	2	0	0	1	0	0	0	0	0	0	0	3
	8:30 AM	0	0	0	0	1	0	0	0	1	0	0	0	2
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	4	0	0	5	0	0	0	4	0	0	0	13
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	
	APP/DEPART	4	/	4	5	/	9	4	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	2	0	0	3	0	0	0	3	0	0	0	8
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	
	PEAK HR FACTOR		0.500			0.375			0.375			0.000		0.500
	APP/DEPART	2	/	2	3	/	6	3	/	0	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	1	0	0	2	0	0	0	0	0	0	0	3
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	5:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	3	0	0	4	0	0	0	0	0	0	0	7
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	3	/	3	4	/	4	0	/	0	0	/	0	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	0	3	0	0	2	0	0	0	0	0	0	0	5
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.750			0.250			0.000			0.000		0.417
	APP/DEPART	3	/	3	2	/	2	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR X	ERR 0	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

Euclid

NORTH SIDE

SR-60 EB Ramps WEST SIDE EAST SIDE **SR-60 EB Ramps**

SOUTH SIDE

Euclid

INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wed, Jan 30, 19

LOCATION: Chino
NORTH & SOUTH: Euclid
EAST & WEST: Walnut

PROJECT #: SC2074
LOCATION #: 13
CONTROL: SIGNAL

NOTES:

AM PM MD OTHER OTHER

▲ N
◄ W E ►
S ▼

Add U-Turns to Left Turns

		NORTHBOUND (Euclid)			SOUTHBOUND (Euclid)			EASTBOUND (Walnut)			WESTBOUND (Walnut)			
	LANES:	NL 1	NT 3	NR 0	SL 2	ST 3	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	19	205	10	23	204	13	20	38	17	15	97	48	709
	7:15 AM	43	218	12	30	189	13	32	57	26	14	95	52	781
	7:30 AM	29	216	9	35	170	8	33	121	32	20	80	59	812
	7:45 AM	30	262	10	34	234	19	22	64	24	15	65	44	823
	8:00 AM	15	203	10	46	227	15	23	42	21	17	59	45	723
	8:15 AM	11	200	17	61	226	12	25	54	35	25	56	34	756
	8:30 AM	22	209	12	36	197	16	29	26	16	16	66	41	686
	8:45 AM	22	238	9	37	208	18	19	33	17	14	43	37	695
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	191	1,751	89	302	1,655	114	203	435	188	136	561	360	5,985
	APPROACH %	9%	86%	4%	15%	80%	6%	25%	53%	23%	13%	53%	34%	
	APP/DEPART	2,031	/	2,446	2,071	/	1,988	826	/	694	1,057	/	857	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	117	899	41	145	820	55	110	284	103	66	299	200	3,139
	APPROACH %	11%	85%	4%	14%	80%	5%	22%	57%	21%	12%	53%	35%	
	PEAK HR FACTOR		0.875			0.885			0.668			0.877		0.954
	APP/DEPART	1,057	/	1,263	1,020	/	994	497	/	416	565	/	466	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	38	265	9	54	216	24	13	81	23	12	54	24	813
	4:15 PM	30	210	13	67	209	19	22	73	35	12	58	24	772
	4:30 PM	29	211	22	51	218	42	20	93	30	11	68	32	827
	4:45 PM	38	228	11	70	228	46	18	87	29	10	105	28	898
	5:00 PM	51	245	20	69	254	34	18	87	35	8	87	34	942
	5:15 PM	42	236	18	50	196	31	27	93	33	35	82	33	876
	5:30 PM	45	209	20	58	195	27	38	82	31	11	75	38	829
	5:45 PM	37	205	22	74	214	22	23	100	30	21	68	32	848
	VOLUMES	310	1,809	135	493	1,730	245	179	696	246	120	597	245	6,805
	APPROACH %	14%	80%	6%	20%	70%	10%	16%	62%	22%	12%	62%	25%	
	APP/DEPART	2,254	/	2,364	2,468	/	2,107	1,121	/	1,190	962	/	1,144	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	176	918	69	247	873	138	101	349	128	64	349	133	3,545
	APPROACH %	15%	79%	6%	20%	69%	11%	17%	60%	22%	12%	64%	24%	
	PEAK HR FACTOR		0.920			0.881			0.944			0.910		0.941
	APP/DEPART	1,163	/	1,206	1,258	/	1,070	578	/	608	546	/	661	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	
3	8	0	0	11
2	12	0	0	14
2	11	0	0	13
1	17	0	0	18
0	14	0	0	14
0	22	0	0	22
0	20	0	0	20
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
9	132	0	0	141
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
3	13	0	0	16
0	24	0	0	24
2	14	0	0	16
0	14	0	0	14
3	21	0	0	24
0	13	0	0	13
2	9	3	0	14
1	26	0	0	27
11	134	3	0	148

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
5	3	6	7
5	6	9	12
2	2	5	13
4	9	11	7
6	3	9	6
8	2	11	8
4	6	4	9
1	6	6	13
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
35	37	61	75
17	20	34	38
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
3	7	6	4
6	8	5	6
6	19	5	5
4	18	9	5
7	11	0	5
8	13	10	6
6	9	3	8
10	7	9	10
50	92	47	49
25	51	22	24

Euclid

NORTH SIDE

Walnut WEST SIDE EAST SIDE **Walnut**

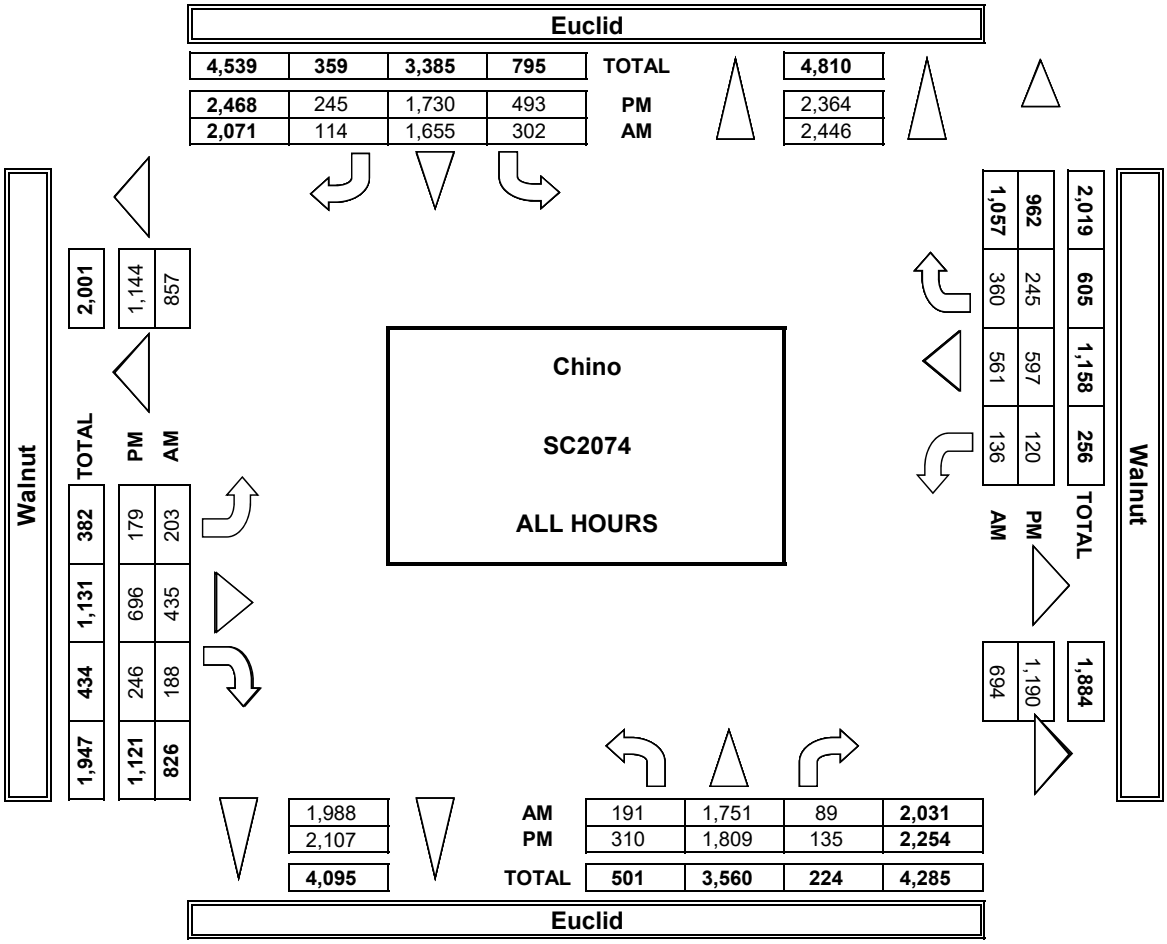
SOUTH SIDE

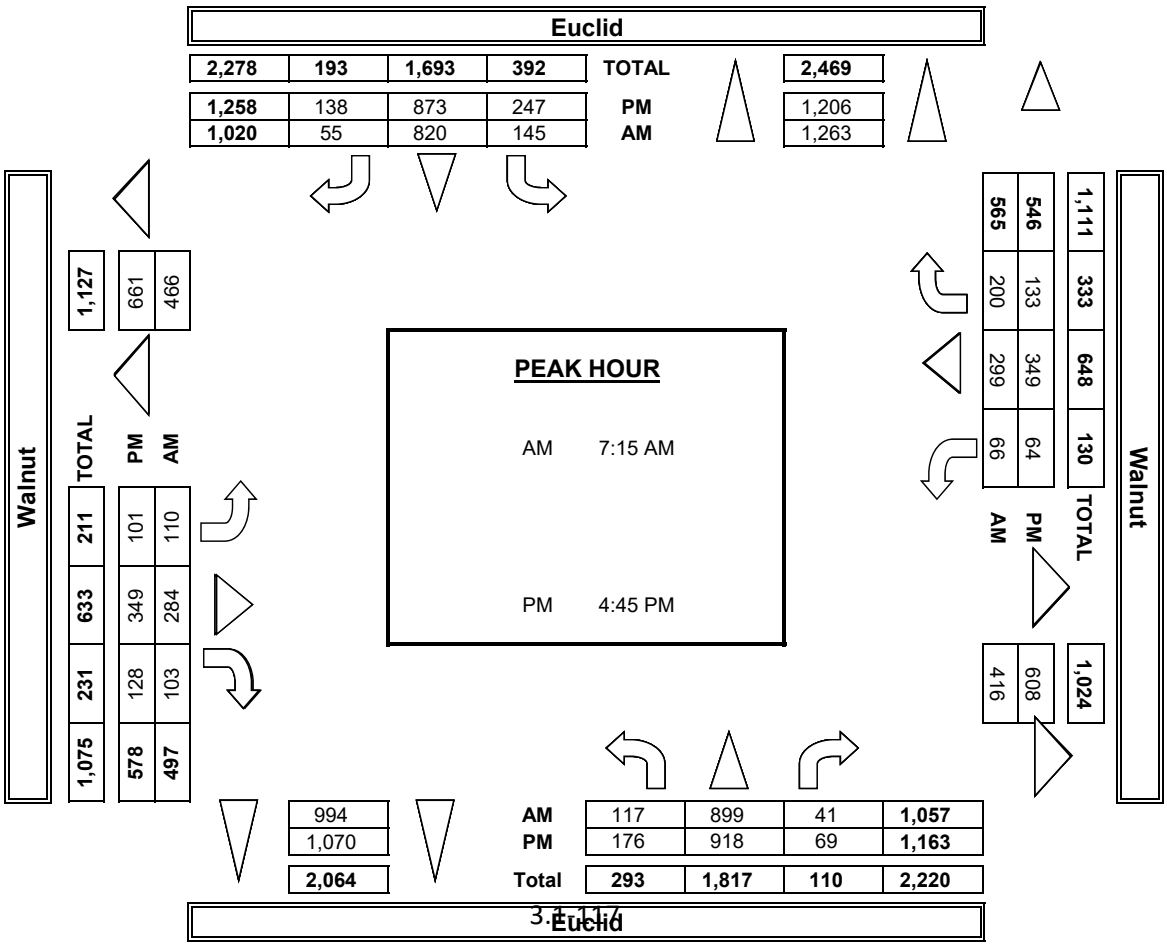
Euclid

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	7:30 AM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	1	0	1	2	0	1	0	1	2	0	0	0	0	0
	8:15 AM	2	0	1	1	4	2	0	1	1	4	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	4	1	1	3	9	1	1	0	2	9	0	0	0	0	0
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	1	0	0	1	2	0	0	0	0	0	1	0	0	1	2
	4:15 PM	1	1	0	2	4	1	1	0	2	4	0	0	0	0	0
	4:30 PM	0	3	1	0	4	0	2	1	0	3	0	1	0	0	1
	4:45 PM	0	0	1	2	3	0	0	1	2	3	0	0	0	0	0
	5:00 PM	1	0	0	3	4	1	0	0	2	3	0	0	0	1	1
	5:15 PM	0	1	0	2	3	0	1	0	2	3	0	0	0	0	0
	5:30 PM	1	0	1	0	2	1	0	0	0	1	0	0	1	0	1
	5:45 PM	0	0	0	2	2	0	0	0	2	2	0	0	0	0	0
	TOTAL	4	5	3	12	24	2	1	1	6	19	0	0	1	1	5

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:
1/30/19	NORTH & SOUTH:	Euclid	LOCATION #:
WEDNESDAY	EAST & WEST:	Walnut	CONTROL:

CLASS 1:	NOTES:
PASSENGER VEHICLES	

	NORTHBOUND (Euclid)			SOUTHBOUND (Euclid)			EASTBOUND (Walnut)		
	NL	NT	NR	SL	ST	SR	EL	ET	ER
LANES:	1	3	0	2	3	1	1	2	0
AM 7:00 AM	18	170	9	18	149	11	19	36	17
7:15 AM	40	186	11	26	140	11	30	53	24
7:30 AM	27	175	9	31	128	8	31	120	30
7:45 AM	29	211	9	32	186	15	20	61	22
8:00 AM	12	154	8	45	182	15	23	40	18
8:15 AM	11	159	16	56	161	10	24	53	32
8:30 AM	19	162	10	33	140	13	27	24	14
8:45 AM	18	175	7	34	140	16	18	29	15
9:00 AM	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0
VOLUMES	174	1,392	79	275	1,226	99	192	416	172
APPROACH %	11%	85%	5%	17%	77%	6%	25%	53%	22%
APP/DEPART	1,645	/	2,053	1,600	/	1,523	780	/	649
BEGIN PEAK HR		7:15 AM							
VOLUMES	104	726	37	86	636	49	104	274	94
APPROACH %	12%	83%	4%	11%	78%	6%	22%	58%	20%
PEAK HR FACTOR		0.874			0.846			0.652	
APP/DEPART	871	/	1,073	819	/	790	472	/	397
PM 03:00 PM	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0
4:00 PM	37	207	9	50	173	22	11	77	22
4:15 PM	28	168	11	65	170	18	22	69	34
4:30 PM	28	165	22	50	178	40	19	91	28
4:45 PM	38	205	11	67	204	45	17	82	26
5:00 PM	50	213	18	67	215	34	16	86	33
5:15 PM	40	203	18	47	170	30	27	88	33
5:30 PM	42	182	20	57	173	26	38	80	27
5:45 PM	35	179	22	72	190	22	22	98	30
VOLUMES	298	1,522	131	475	1,473	237	172	671	233
APPROACH %	15%	78%	7%	22%	67%	11%	16%	62%	22%
APP/DEPART	1,951	/	2,054	2,185	/	1,831	1,076	/	1,147
BEGIN PEAK HR		4:45 PM							
VOLUMES	166	803	67	183	762	135	95	336	119

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2074
1/30/19	NORTH & SOUTH:	Euclid	LOCATION #:	13
WEDNESDAY	EAST & WEST:	Walnut	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Euclid)			SOUTHBOUND (Euclid)			EASTBOUND (Walnut)			WESTBOUND (Walnut)			
	LANES:	NL 1	NT 3	NR 0	SL 2	ST 3	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	0	12	0	3	20	2	1	2	0	2	0	1	43
	7:15 AM	3	11	0	3	22	2	2	3	1	2	2	1	52
	7:30 AM	1	18	0	4	15	0	2	1	0	2	0	1	44
	7:45 AM	0	22	1	1	22	4	2	2	2	3	2	0	61
	8:00 AM	2	27	2	1	15	0	0	2	3	1	2	2	57
	8:15 AM	0	14	1	4	27	1	0	1	2	0	3	1	54
	8:30 AM	2	24	2	3	18	2	2	2	1	3	4	1	64
	8:45 AM	4	37	1	3	27	1	0	4	2	3	3	4	89
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	12	165	7	22	166	12	9	17	11	16	16	11	464
	APPROACH %	7%	90%	4%	11%	83%	6%	24%	46%	30%	37%	37%	26%	
	APP/DEPART	184	/	196	200	/	194	37	/	35	43	/	39	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	8	102	6	7	87	4	2	9	8	7	12	8	264
	APPROACH %	7%	88%	5%	7%	85%	4%	11%	47%	42%	26%	44%	30%	
	PEAK HR FACTOR		0.690			0.797			0.792			0.675		0.742
	APP/DEPART	116	/	116	102	/	102	19	/	22	27	/	24	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	1	21	0	3	15	1	2	2	1	1	1	2	50
	4:15 PM	2	12	2	2	11	1	0	4	1	1	1	1	38
	4:30 PM	1	14	0	1	16	2	1	2	1	0	2	0	40
	4:45 PM	0	6	0	2	9	1	1	5	3	1	1	0	29
	5:00 PM	0	9	2	2	18	0	1	1	2	0	4	3	42
	5:15 PM	2	10	0	3	9	1	0	5	0	0	1	1	32
	5:30 PM	0	6	0	1	9	1	0	2	4	0	3	1	27
	5:45 PM	2	7	0	2	9	0	1	1	0	1	2	2	27
	VOLUMES	8	85	4	16	96	7	6	22	12	4	15	10	285
	APPROACH %	8%	88%	4%	13%	81%	6%	15%	55%	30%	14%	52%	34%	
	APP/DEPART	97	/	105	119	/	112	40	/	38	29	/	30	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	4	53	2	6	51	5	4	13	6	3	5	3	157
	APPROACH %	7%	90%	3%	9%	80%	8%	17%	57%	26%	27%	45%	27%	
	PEAK HR FACTOR		0.670			0.842			0.639			0.688		0.785
	APP/DEPART	59	/	62	64	/	60	23	/	21	11	/	14	0

U-TURNS

NB	SB	EB	WB	TTL
0	2	0	0	2
1	3	0	0	4
0	1	0	0	1
0	1	0	0	1
0	1	0	0	1
0	1	0	0	1
0	2	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	11	0	0	12
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	2	0	0	2
0	0	0	0	0
0	0	0	0	0
0	4	0	0	4

RTOR

NRR	SRR	ERR	WRR
0	1	0	0
0	1	1	0
0	0	0	0
0	2	1	0
1	0	0	0
0	0	1	0
1	2	0	0
0	0	0	2
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
2	6	3	2
2	2	1	2
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	1
0	2	0	0
0	1	2	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
1	3	2	2
1	3	2	1

Euclid

NORTH SIDE

Walnut WEST SIDE EAST SIDE **Walnut**

SOUTH SIDE

Euclid

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2074
1/30/19	NORTH & SOUTH:	Euclid	LOCATION #:	13
WEDNESDAY	EAST & WEST:	Walnut	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Euclid)			SOUTHBOUND (Euclid)			EASTBOUND (Walnut)			WESTBOUND (Walnut)			
	LANES:	NL 1	NT 3	NR 0	SL 2	ST 3	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
	7:00 AM	0	3	0	0	11	0	0	0	0	0	0	0	14
	7:15 AM	0	5	0	0	5	0	0	0	0	0	0	1	11
	7:30 AM	0	6	0	0	6	0	0	0	0	0	0	0	12
	7:45 AM	0	10	0	0	6	0	0	0	0	0	0	0	16
	8:00 AM	0	3	0	0	5	0	0	0	0	1	0	0	9
	8:15 AM	0	7	0	1	5	1	1	0	1	0	0	0	16
	8:30 AM	0	4	0	0	9	0	0	0	1	0	0	0	14
	8:45 AM	0	6	1	0	7	1	1	0	0	0	0	0	16
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	44	1	1	54	2	2	0	2	1	0	1	108
	APPROACH %	0%	98%	2%	2%	95%	4%	50%	0%	50%	50%	0%	50%	
	APP/DEPART	45	/	47	57	/	57	4	/	2	2	/	2	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	0	20	1	1	26	2	2	0	2	1	0	0	55
	APPROACH %	0%	95%	5%	3%	90%	7%	50%	0%	50%	100%	0%	0%	
	PEAK HR FACTOR		0.525			0.806			0.500			0.250		0.859
#	APP/DEPART	21	/	22	29	/	29	4	/	2	1	/	2	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	6	0	1	8	0	0	0	0	0	0	0	15
PM	4:15 PM	0	6	0	0	8	0	0	0	0	1	0	0	15
PM	4:30 PM	0	3	0	0	5	0	0	0	0	0	0	0	8
PM	4:45 PM	0	2	0	0	3	0	0	0	0	0	0	0	5
PM	5:00 PM	1	2	0	0	4	0	1	0	0	0	0	0	8
PM	5:15 PM	0	3	0	0	3	0	0	0	0	0	0	0	6
PM	5:30 PM	0	5	0	0	5	0	0	0	0	0	0	0	10
PM	5:45 PM	0	5	0	0	4	0	0	0	0	0	0	0	9
PM	VOLUMES	1	32	0	1	40	0	1	0	0	1	0	0	76
PM	APPROACH %	3%	97%	0%	2%	98%	0%	100%	0%	0%	100%	0%	0%	
PM	APP/DEPART	33	/	33	41	/	41	1	/	1	1	/	1	0
PM	BEGIN PEAK HR		4:00 PM											
PM	VOLUMES	0	17	0	1	24	0	0	0	0	1	0	0	43
PM	APPROACH %	0%	100%	0%	4%	96%	0%	0%	0%	0%	100%	0%	0%	
PM	PEAK HR FACTOR		0.708			0.694			0.000			0.250		0.717
PM	APP/DEPART	17	/	17	25	/	25	0	/	1	1	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2074
1/30/19	NORTH & SOUTH:	Euclid	LOCATION #:	13
WEDNESDAY	EAST & WEST:	Walnut	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

	NORTHBOUND (Euclid)			SOUTHBOUND (Euclid)			EASTBOUND (Walnut)			WESTBOUND (Walnut)			
LANES:	NL 1	NT 3	NR 0	SL 2	ST 3	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
7:00 AM	0	19	0	0	23	0	0	0	0	0	0	0	42
7:15 AM	0	15	0	0	21	0	0	0	1	0	0	0	37
7:30 AM	0	17	0	0	21	0	0	0	2	0	1	0	41
7:45 AM	0	19	0	1	20	0	0	0	0	0	0	0	40
8:00 AM	1	19	0	0	25	0	0	0	0	0	0	0	45
8:15 AM	0	18	0	0	32	0	0	0	0	0	0	0	50
8:30 AM	1	19	0	0	29	0	0	0	0	0	1	0	50
8:45 AM	0	20	0	0	33	0	0	0	0	0	0	0	53
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	2	146	0	1	204	0	0	0	3	0	2	0	358
APPROACH %	1%	99%	0%	0%	100%	0%	0%	0%	100%	0%	100%	0%	
APP/DEPART	148	/	146	205	/	207	3	/	1	2	/	4	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	2	76	0	0	119	0	0	0	0	0	1	0	198
APPROACH %	3%	97%	0%	0%	100%	0%	0%	0%	0%	0%	100%	0%	
PEAK HR FACTOR		0.975			0.902			0.000			0.250		0.934
APP/DEPART	78	/	76	119	/	119	0	/	0	1	/	3	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	31	0	0	20	0	0	0	0	0	0	0	51
4:15 PM	0	24	0	0	20	0	0	0	0	0	0	0	44
4:30 PM	0	28	0	0	17	0	0	0	1	0	1	0	47
4:45 PM	0	15	0	1	12	0	0	0	0	0	1	0	29
5:00 PM	0	21	0	0	17	0	0	0	0	0	0	0	38
5:15 PM	0	19	0	0	14	0	0	0	0	0	1	1	35
5:30 PM	3	16	0	0	7	0	0	0	0	0	0	0	26
5:45 PM	0	14	0	0	11	0	0	1	0	0	0	0	26
VOLUMES	3	168	0	1	118	0	0	1	1	0	3	1	296
APPROACH %	2%	98%	0%	1%	99%	0%	0%	50%	50%	0%	75%	25%	
APP/DEPART	171	/	169	119	/	120	2	/	2	4	/	5	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	98	0	1	69	0	0	0	1	0	2	0	171
APPROACH %	0%	100%	0%	1%	99%	0%	0%	0%	100%	0%	100%	0%	
PEAK HR FACTOR		0.790			0.875			0.250			0.500		0.838
APP/DEPART	98	/	98	70	/	70	1	/	1	2	/	2	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:
1/30/19	NORTH & SOUTH:	Euclid	LOCATION #:
WEDNESDAY	EAST & WEST:	Walnut	CONTROL:

CLASS 5:	NOTES:
RV	

AM
PM
MD
OTHER
OTHER

	NORTHBOUND (Euclid)			SOUTHBOUND (Euclid)			EASTBOUND (Walnut)			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL
LANES:	1	3	0	2	3	1	1	2	0	1
AM										
7:00 AM	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
APP/DEPART	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR		7:00 AM								
VOLUMES	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PEAK HR FACTOR		0.000			0.000			0.000		
APP/DEPART	0	/	0	0	/	0	0	/	0	0
PM										
03:00 PM	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
APP/DEPART	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR		3:00 PM								
VOLUMES	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:
1/30/19	NORTH & SOUTH:	Euclid	LOCATION #:
WEDNESDAY	EAST & WEST:	Walnut	CONTROL:

CLASS 6:	NOTES:	AM
BUSES		PM
		MD
		OTHER
		OTHER

	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Walnut			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL
LANES:	1	3	0	2	3	1	1	2	0	1
AM 7:00 AM	1	1	1	2	1	0	0	0	0	0
7:15 AM	0	1	1	1	1	0	0	1	0	1
7:30 AM	1	0	0	0	0	0	0	0	0	0
7:45 AM	1	0	0	0	0	0	0	1	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	2	0	0	1	0	0	0	0	1
8:30 AM	0	0	0	0	1	1	0	0	0	0
8:45 AM	0	0	0	0	1	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0
VOLUMES	3	4	2	3	5	1	0	2	0	2
APPROACH %	33%	44%	22%	33%	56%	11%	0%	100%	0%	22%
APP/DEPART	9	/	4	9	/	7	2	/	7	9
BEGIN PEAK HR		7:00 AM								
VOLUMES	3	2	2	3	2	0	0	2	0	1
APPROACH %	43%	29%	29%	60%	40%	0%	0%	100%	0%	13%
PEAK HR FACTOR		0.583			0.417			0.500		
APP/DEPART	7	/	2	5	/	3	2	/	7	8
PM 03:00 PM	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	1	0	2	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	2	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	1	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	2	0	0	3	1	0	2	0	0
APPROACH %	0%	100%	0%	0%	75%	25%	0%	100%	0%	0%
APP/DEPART	2	/	3	4	/	3	2	/	2	3
BEGIN PEAK HR		4:00 PM								
VOLUMES	0	1	0	0	2	1	0	2	0	0

INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
Tue, Jan 22, 19	NORTH & SOUTH:	Euclid	LOCATION #:	11
	EAST & WEST:	Riverside	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N / ◄ W / E ► / S ▼

Add U-Turns to Left Turns

		NORTHBOUND (Euclid)			SOUTHBOUND (Euclid)			EASTBOUND (Riverside)			WESTBOUND (Riverside)			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 1	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	11	157	24	22	151	38	29	58	6	33	162	18	709
	7:15 AM	12	165	27	24	172	26	31	83	9	29	126	26	730
	7:30 AM	21	206	42	36	148	21	36	90	13	45	102	20	780
	7:45 AM	14	171	34	38	202	41	29	78	9	39	136	30	821
	8:00 AM	10	151	34	44	155	35	31	80	13	44	112	24	733
	8:15 AM	11	173	31	48	184	42	40	50	10	45	116	23	773
	8:30 AM	19	167	38	38	186	31	36	69	9	30	103	23	749
	8:45 AM	14	187	31	33	152	40	37	75	8	42	120	23	762
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	112	1,377	261	283	1,350	274	269	583	77	307	977	187	6,057
	APPROACH %	6%	79%	15%	15%	71%	14%	29%	63%	8%	21%	66%	13%	
	APP/DEPART	1,750	/	1,874	1,907	/	1,735	929	/	1,080	1,471	/	1,368	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	56	701	141	166	689	139	136	298	45	173	466	97	3,107
	APPROACH %	6%	78%	16%	17%	69%	14%	28%	62%	9%	24%	63%	13%	
	PEAK HR FACTOR		0.835			0.884			0.862			0.898		0.946
	APP/DEPART	898	/	966	994	/	907	479	/	571	736	/	663	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	18	201	59	26	170	41	24	89	13	30	71	16	758
	4:15 PM	16	186	44	41	154	31	31	94	14	37	83	16	747
	4:30 PM	16	178	51	37	181	42	38	104	21	22	97	11	798
	4:45 PM	18	208	44	38	163	40	29	102	13	34	95	12	796
	5:00 PM	15	197	48	23	171	55	32	112	15	41	98	10	817
	5:15 PM	16	221	62	29	177	44	34	110	15	37	111	19	875
	5:30 PM	12	195	49	35	210	42	36	105	19	43	84	17	847
	5:45 PM	18	199	65	34	156	36	31	102	17	52	93	11	814
	VOLUMES	129	1,585	422	263	1,382	331	255	818	127	296	732	112	6,452
	APPROACH %	6%	74%	20%	13%	70%	17%	21%	68%	11%	26%	64%	10%	
	APP/DEPART	2,136	/	2,009	1,976	/	1,808	1,200	/	1,442	1,140	/	1,193	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	61	812	224	121	714	177	133	429	66	173	386	57	3,353
	APPROACH %	6%	74%	20%	12%	71%	17%	21%	68%	11%	28%	63%	9%	
	PEAK HR FACTOR		0.917			0.882			0.981			0.922		0.958
	APP/DEPART	1,097	/	1,023	1,012	/	955	628	/	753	616	/	622	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	
0	3	0	0	3
1	3	0	0	4
0	6	0	0	6
0	14	0	0	14
0	10	0	0	10
0	4	2	0	6
0	3	2	0	5
0	4	2	0	6
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	47	6	0	54
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	9	2	0	12
0	8	0	0	8
0	10	2	0	12
0	13	0	0	13
1	5	0	0	6
1	3	0	0	4
0	5	0	0	5
0	8	0	0	8
3	61	4	0	68

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
16	17	3	5
11	14	3	10
7	7	5	5
13	23	2	9
10	13	5	5
8	13	3	9
13	13	2	2
15	19	3	6
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
93	119	26	51
38	56	15	28
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
9	16	5	3
16	20	5	6
12	15	9	3
13	21	5	5
8	29	8	3
12	22	4	6
10	20	6	4
22	16	6	2
102	159	48	32
52	87	24	15

Euclid

NORTH SIDE

Riverside WEST SIDE EAST SIDE **Riverside**

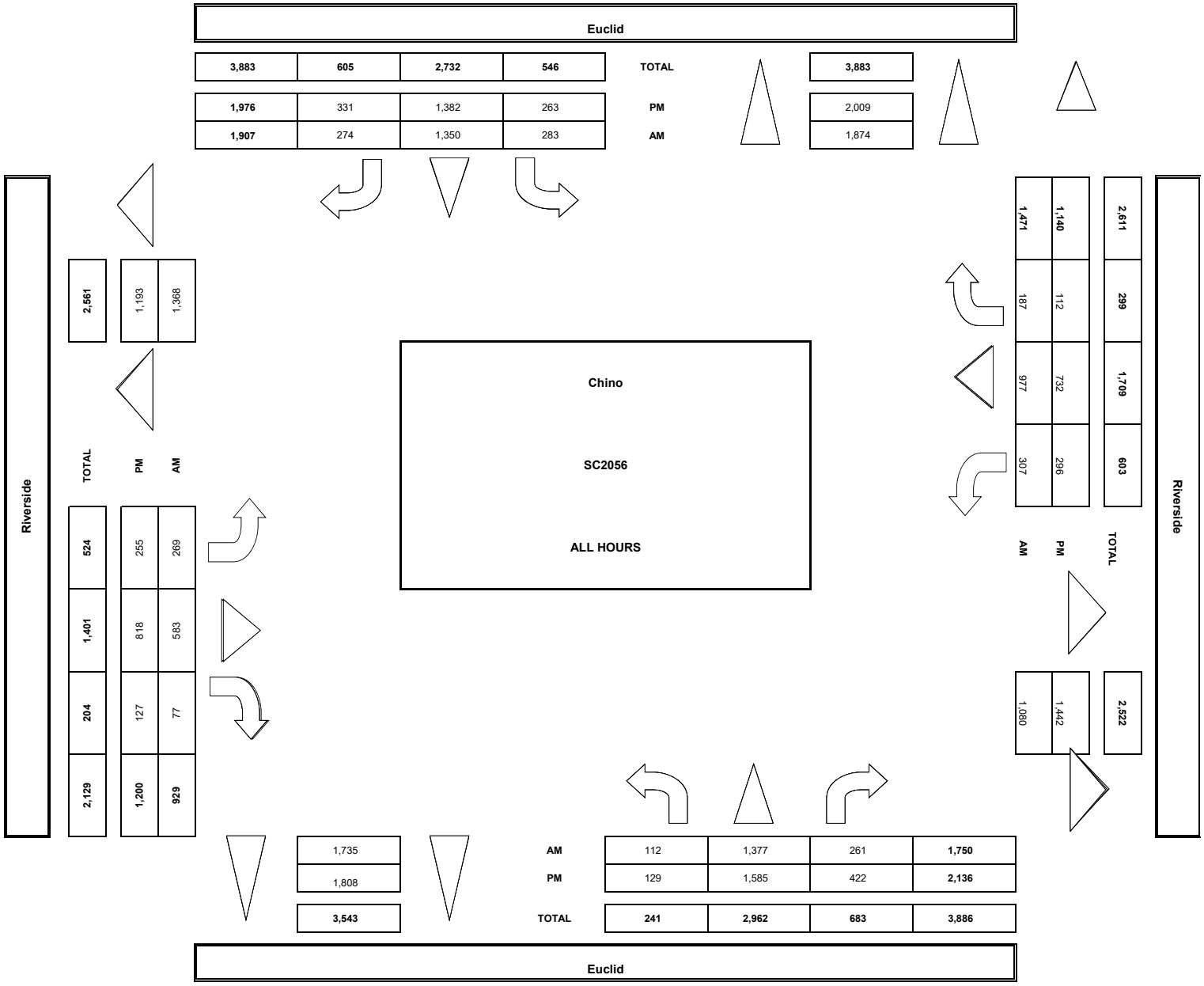
SOUTH SIDE

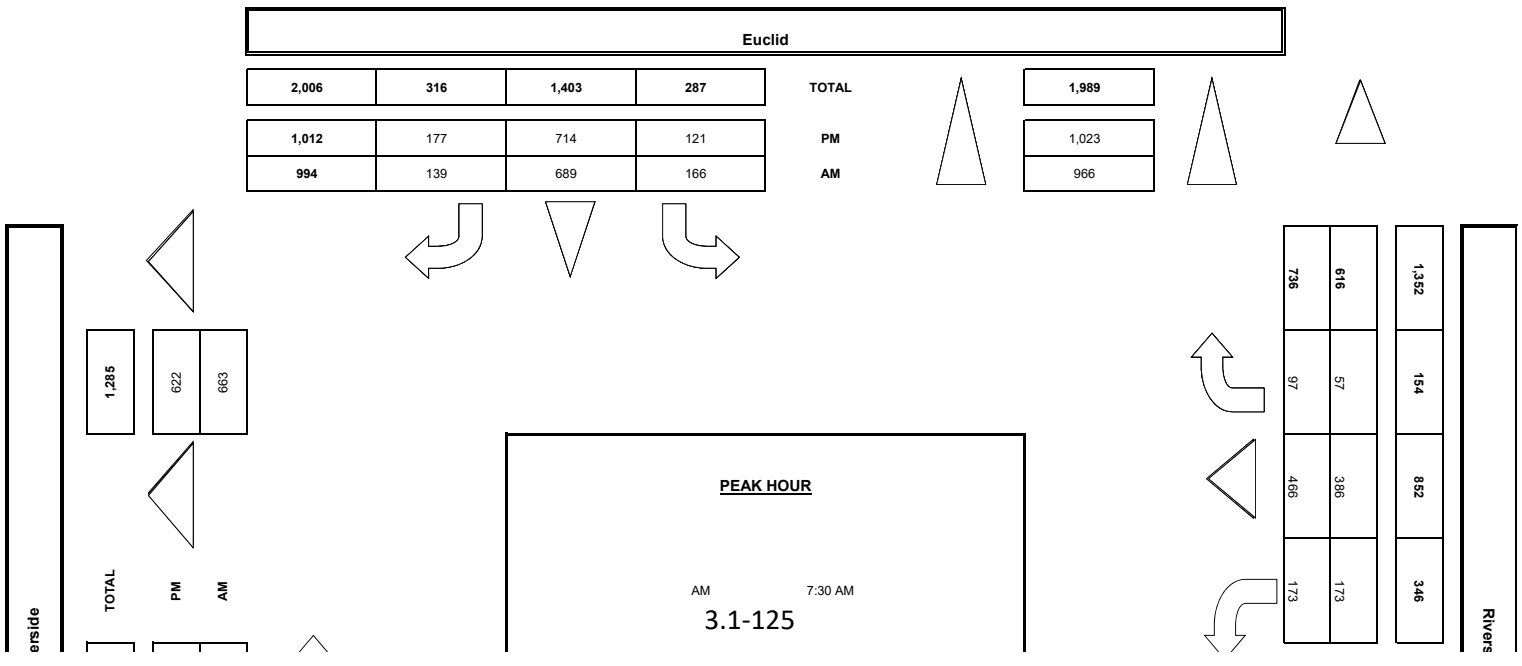
Euclid

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	1	2	1	4	0	0	2	1	3	0	1	0	0	1
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	2	2	2	6	0	1	2	2	5	0	1	0	0	1
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	2	2	0	0	0	1	1	0	0	0	1	1
	4:15 PM	2	0	1	0	3	0	0	0	0	0	2	0	1	0	3
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	5:00 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	5:15 PM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	2	2	1	3	8	0	0	0	2	2	2	2	1	1	6

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:
1/22/19	NORTH & SOUTH:	Euclid	LOCATION #:
TUESDAY	EAST & WEST:	Riverside	CONTROL:

CLASS 1:	NOTES:
PASSENGER VEHICLES	

	NORTHBOUND (Euclid)			SOUTHBOUND (Euclid)			EASTBOUND (Riverside)		
	NL	NT	NR	SL	ST	SR	EL	ET	ER
LANES:	1	2	1	1	2	1	1	1	0
AM 7:00 AM	9	128	23	20	119	35	26	52	5
7:15 AM	9	131	26	20	130	26	25	77	7
7:30 AM	17	178	39	26	117	19	33	81	11
7:45 AM	14	132	34	32	155	37	27	71	9
8:00 AM	8	123	31	42	117	33	30	77	11
8:15 AM	8	125	31	42	149	36	36	45	6
8:30 AM	14	128	29	35	128	30	33	63	9
8:45 AM	13	127	26	33	97	38	29	70	8
9:00 AM	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0
VOLUMES	92	1,072	239	250	1,012	254	239	536	66
APPROACH %	7%	76%	17%	16%	67%	17%	28%	64%	8%
APP/DEPART	1,403	/	1,509	1,516	/	1,357	841	/	986
BEGIN PEAK HR		7:30 AM							
VOLUMES	47	558	135	116	538	125	124	274	37
APPROACH %	6%	75%	18%	14%	67%	16%	28%	63%	8%
PEAK HR FACTOR		0.791			0.887			0.874	
APP/DEPART	740	/	795	805	/	732	437	/	525
PM 03:00 PM	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0
4:00 PM	15	163	56	22	134	38	20	85	11
4:15 PM	15	159	44	38	124	30	27	92	12
4:30 PM	15	141	48	37	155	41	35	97	19
4:45 PM	18	180	43	35	133	36	27	98	11
5:00 PM	15	167	45	20	140	54	30	107	14
5:15 PM	14	200	61	24	163	43	31	105	12
5:30 PM	11	163	48	32	185	40	35	103	18
5:45 PM	16	175	64	34	136	36	30	102	16
VOLUMES	119	1,348	409	242	1,170	318	235	789	113
APPROACH %	6%	72%	22%	14%	68%	18%	21%	69%	10%
APP/DEPART	1,876	/	1,746	1,730	/	1,575	1,137	/	1,379
BEGIN PEAK HR		5:00 PM							
VOLUMES	54	705	218	89	624	173	126	417	60

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:
1/22/19	NORTH & SOUTH:	Euclid	LOCATION #:
TUESDAY	EAST & WEST:	Riverside	CONTROL:

CLASS 2:	NOTES:	AM
2-AXLE		PM
WORK		MD
VEHICLES/		OTHER
TRUCKS		OTHER

		NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Riverside			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL
	LANES:	1	2	1	1	2	1	1	1	0	1
AM	7:00 AM	1	11	1	0	14	3	1	3	0	0
	7:15 AM	2	15	0	2	22	0	6	2	1	0
	7:30 AM	0	10	1	7	9	1	2	5	1	3
	7:45 AM	0	15	0	4	21	4	2	3	0	2
	8:00 AM	1	10	0	1	16	1	0	1	2	1
	8:15 AM	1	19	0	4	12	3	1	2	3	2
	8:30 AM	4	14	5	3	17	0	2	5	0	3
	8:45 AM	0	24	4	0	13	2	5	5	0	6
	9:00 AM	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0
	VOLUMES	9	118	11	21	124	14	19	26	7	17
	APPROACH %	7%	86%	8%	13%	78%	9%	37%	50%	13%	27%
	APP/DEPART	138	/	149	159	/	148	52	/	52	63
	BEGIN PEAK HR		8:00 AM								
	VOLUMES	6	67	9	5	58	6	8	13	5	12
	APPROACH %	7%	82%	11%	7%	81%	8%	31%	50%	19%	32%
	PEAK HR FACTOR		0.732			0.900			0.650		
	APP/DEPART	82	/	82	72	/	75	26	/	27	37
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0
	4:00 PM	2	16	1	1	18	3	4	3	1	0
	4:15 PM	0	11	0	1	9	1	2	0	1	1
	4:30 PM	1	18	1	0	7	0	3	7	2	2
	4:45 PM	0	12	1	1	10	3	1	2	2	2
	5:00 PM	0	8	3	2	9	0	0	4	1	1
	5:15 PM	2	7	1	3	6	0	2	3	3	0
	5:30 PM	1	11	1	3	8	1	1	1	1	0
	5:45 PM	2	4	1	0	6	0	0	0	1	0
	VOLUMES	8	87	9	11	73	8	13	20	12	6
	APPROACH %	8%	84%	9%	12%	79%	9%	29%	44%	27%	27%
	APP/DEPART	104	/	102	92	/	91	45	/	40	22
	BEGIN PEAK HR		4:00 PM								
	VOLUMES	3	57	3	3	44	7	10	12	6	5

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:
1/22/19	NORTH & SOUTH:	Euclid	LOCATION #:
TUESDAY	EAST & WEST:	Riverside	CONTROL:

CLASS 3:	NOTES:
3-AXLE TRUCKS	

		NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Riverside		
		NL	NT	NR	SL	ST	SR	EL	ET	ER
	LANES:	1	2	1	1	2	1	1	1	0
AM	7:00 AM	0	3	0	1	1	0	0	0	0
	7:15 AM	0	4	0	1	4	0	0	0	0
	7:30 AM	4	6	0	1	5	0	1	0	1
	7:45 AM	0	3	0	1	3	0	0	1	0
	8:00 AM	0	5	0	0	2	0	1	2	0
	8:15 AM	1	4	0	1	8	0	0	0	1
	8:30 AM	0	10	2	0	10	0	1	0	0
	8:45 AM	0	13	1	0	8	0	1	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0
	VOLUMES	5	48	3	5	41	0	4	3	2
	APPROACH %	9%	86%	5%	11%	89%	0%	44%	33%	22%
	APP/DEPART	56	/	58	46	/	46	9	/	10
	BEGIN PEAK HR		8:00 AM							
	VOLUMES	1	32	3	1	28	0	3	2	1
	APPROACH %	3%	89%	8%	3%	97%	0%	50%	33%	17%
	PEAK HR FACTOR		0.643			0.725			0.500	
	APP/DEPART	36	/	39	29	/	29	6	/	6
PM	03:00 PM	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0
	4:00 PM	0	8	0	1	0	0	0	0	0
	4:15 PM	0	1	0	0	3	0	1	0	0
	4:30 PM	0	2	0	0	4	0	0	0	0
	4:45 PM	0	5	0	0	3	0	0	0	0
	5:00 PM	0	2	0	1	4	0	1	1	0
	5:15 PM	0	3	0	2	3	0	0	0	0
	5:30 PM	0	1	0	0	3	0	0	0	0
	5:45 PM	0	5	0	0	2	0	1	0	0
	VOLUMES	0	27	0	4	22	0	3	1	0
	APPROACH %	0%	100%	0%	15%	85%	0%	75%	25%	0%
	APP/DEPART	27	/	32	26	/	22	4	/	5
	BEGIN PEAK HR		4:30 PM							
	VOLUMES	0	12	0	3	14	0	1	1	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:
1/22/19	NORTH & SOUTH:	Euclid	LOCATION #:
TUESDAY	EAST & WEST:	Riverside	CONTROL:

CLASS 4:	NOTES:
4 OR MORE AXLE TRUCKS	

AM PM MD OTHER OTHER

		NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Riverside			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL
	LANES:	1	2	1	1	2	1	1	1	0	1
AM	7:00 AM	1	14	0	0	17	0	1	0	1	1
	7:15 AM	1	14	0	1	16	0	0	0	0	1
	7:30 AM	0	11	1	2	16	1	0	1	0	0
	7:45 AM	0	21	0	1	23	0	0	0	0	0
	8:00 AM	1	13	2	1	20	1	0	0	0	2
	8:15 AM	0	22	0	1	15	3	3	1	0	1
	8:30 AM	1	13	1	0	29	1	0	1	0	1
	8:45 AM	1	23	0	0	33	0	2	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0
	VOLUMES	5	131	4	6	169	6	6	3	1	6
	APPROACH %	4%	94%	3%	3%	93%	3%	60%	30%	10%	29%
	APP/DEPART	140	/	149	181	/	176	10	/	12	21
	BEGIN PEAK HR		8:00 AM								
	VOLUMES	3	71	3	2	97	5	5	2	0	4
	APPROACH %	4%	92%	4%	2%	93%	5%	71%	29%	0%	29%
	PEAK HR FACTOR		0.802			0.788			0.438		
	APP/DEPART	77	/	82	104	/	101	7	/	7	14
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	13	2	2	18	0	0	1	1	0
	4:15 PM	0	14	0	2	18	0	1	1	1	1
	4:30 PM	0	17	2	0	14	1	0	0	0	0
	4:45 PM	0	10	0	2	16	0	1	1	0	0
	5:00 PM	0	20	0	0	17	1	1	0	0	0
	5:15 PM	0	9	0	0	5	1	1	2	0	0
	5:30 PM	0	20	0	0	12	1	0	0	0	0
	5:45 PM	0	15	0	0	12	0	0	0	0	0
	VOLUMES	0	118	4	6	112	4	4	5	2	1
	APPROACH %	0%	97%	3%	5%	92%	3%	36%	45%	18%	25%
	APP/DEPART	122	/	124	122	/	115	11	/	15	4
	BEGIN PEAK HR		4:15 PM								
	VOLUMES	0	61	2	4	65	2	3	2	1	1

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:
1/22/19	NORTH & SOUTH:	Euclid	LOCATION #:
TUESDAY	EAST & WEST:	Riverside	CONTROL:

CLASS 5:	NOTES:
RV	

AM
PM
MD
OTHER
OTHER

	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Riverside			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL
LANES:	1	2	1	1	2	1	1	1	0	1
AM										
7:00 AM	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
APP/DEPART	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR		7:00 AM								
VOLUMES	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PEAK HR FACTOR		0.000			0.000			0.000		
APP/DEPART	0	/	0	0	/	0	0	/	0	0
PM										
03:00 PM	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	1	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	1	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%
APP/DEPART	0	/	0	1	/	1	0	/	0	0
BEGIN PEAK HR		4:45 PM								
VOLUMES	0	0	0	0	1	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:
1/22/19	NORTH & SOUTH:	Euclid	LOCATION #:
TUESDAY	EAST & WEST:	Riverside	CONTROL:

CLASS 6:	NOTES:	AM
BUSES		PM
		MD
		OTHER
		OTHER

	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Riverside			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 1	ER 0	WL 1
AM										
7:00 AM	0	1	0	1	0	0	1	3	0	0
7:15 AM	0	1	1	0	0	0	0	4	1	0
7:30 AM	0	1	1	0	1	0	0	3	0	1
7:45 AM	0	0	0	0	0	0	0	3	0	1
8:00 AM	0	0	1	0	0	0	0	0	0	1
8:15 AM	1	3	0	0	0	0	0	2	0	0
8:30 AM	0	2	1	0	2	0	0	0	0	0
8:45 AM	0	0	0	0	1	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0
VOLUMES	1	8	4	1	4	0	1	15	1	3
APPROACH %	8%	62%	31%	20%	80%	0%	6%	88%	6%	15%
APP/DEPART	13	/	9	5	/	8	17	/	20	20
BEGIN PEAK HR		7:15 AM								
VOLUMES	0	2	3	0	1	0	0	10	1	3
APPROACH %	0%	40%	60%	0%	100%	0%	0%	91%	9%	19%
PEAK HR FACTOR		0.625			0.250			0.550		
APP/DEPART	5	/	2	1	/	5	11	/	13	16
PM										
03:00 PM	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0
4:00 PM	1	1	0	0	0	0	0	0	0	0
4:15 PM	1	1	0	0	0	0	0	1	0	0
4:30 PM	0	0	0	0	1	0	0	0	0	0
4:45 PM	0	1	0	0	1	1	0	1	0	0
5:00 PM	0	0	0	0	1	0	0	0	0	0
5:15 PM	0	2	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	1	0	0	1	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0
VOLUMES	2	5	0	0	4	1	0	3	0	0
APPROACH %	29%	71%	0%	0%	80%	20%	0%	100%	0%	0%
APP/DEPART	7	/	5	5	/	4	3	/	3	1
BEGIN PEAK HR		4:00 PM								
VOLUMES	0	3	0	0	3	1	0	2	0	0

INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
Thu, Jan 24, 19	NORTH & SOUTH:	Euclid	LOCATION #:	12
	EAST & WEST:	Chino	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

Add U-Turns to Left Turns

		NORTHBOUND (Euclid)			SOUTHBOUND (Euclid)			EASTBOUND (Chino)			WESTBOUND (Chino)			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 1	ER 1	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	8	165	25	4	188	7	22	31	5	17	34	7	513
	7:15 AM	11	178	25	7	166	10	31	42	8	15	30	5	528
	7:30 AM	20	192	27	11	191	23	23	48	5	21	47	2	610
	7:45 AM	6	166	27	14	211	24	21	43	14	16	30	10	582
	8:00 AM	6	199	33	12	201	26	17	24	6	10	30	11	575
	8:15 AM	12	174	16	7	189	21	17	28	8	10	33	5	520
	8:30 AM	10	208	26	7	168	15	26	27	8	14	20	9	538
	8:45 AM	4	197	30	7	173	6	15	22	9	8	16	4	491
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	77	1,479	209	69	1,487	132	172	265	63	111	240	53	4,357
	APPROACH %	4%	84%	12%	4%	88%	8%	34%	53%	13%	27%	59%	13%	
	APP/DEPART	1,765	/	1,717	1,688	/	1,663	500	/	530	404	/	447	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	43	735	112	44	769	83	92	157	33	62	137	28	2,295
	APPROACH %	5%	83%	13%	5%	86%	9%	33%	56%	12%	27%	60%	12%	
	PEAK HR FACTOR		0.931			0.900			0.870			0.811		0.941
	APP/DEPART	890	/	863	896	/	864	282	/	305	227	/	263	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	12	263	48	7	170	22	14	47	14	16	25	3	641
	4:15 PM	17	252	55	4	176	24	12	43	12	22	20	6	643
	4:30 PM	7	218	33	6	186	15	23	41	11	12	16	2	570
	4:45 PM	13	253	59	7	196	12	31	78	9	15	22	2	697
	5:00 PM	7	246	44	4	203	15	15	55	14	15	29	1	648
	5:15 PM	8	268	60	5	208	13	23	80	8	26	34	3	736
	5:30 PM	4	248	46	6	208	24	17	51	13	18	19	3	657
	5:45 PM	9	243	37	3	237	16	21	38	15	24	24	3	670
	VOLUMES	77	1,991	382	42	1,584	141	156	433	96	148	189	23	5,262
	APPROACH %	3%	81%	16%	2%	90%	8%	23%	63%	14%	41%	53%	6%	
	APP/DEPART	2,450	/	2,178	1,767	/	1,830	685	/	849	360	/	405	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	32	1,015	209	22	815	64	86	264	44	74	104	9	2,738
	APPROACH %	3%	81%	17%	2%	90%	7%	22%	67%	11%	40%	56%	5%	
	PEAK HR FACTOR		0.935			0.946			0.835			0.742		0.930
	APP/DEPART	1,256	/	1,112	901	/	934	394	/	493	187	/	199	0

U-TURNS

NB	SB	EB	WB	TTL
0	2	0	0	2
0	0	0	0	0
0	3	0	0	3
0	2	0	0	2
0	3	0	0	3
1	0	0	0	1
0	1	0	0	1
1	2	0	0	3
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
2	13	0	0	15
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	3	0	0	3
1	2	0	0	3
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	2	0	0	2
0	0	0	0	0
2	8	0	0	10

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
15	1	2	1
5	3	3	2
3	11	2	1
5	11	8	5
10	4	2	3
6	9	3	0
5	4	3	3
7	1	5	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
56	44	28	16
23	29	15	11
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
13	10	4	0
16	3	4	0
6	6	11	2
19	2	3	1
8	10	5	1
19	4	5	1
20	15	8	1
9	4	8	0
110	54	48	6
66	31	21	4

Euclid

NORTH SIDE

Chino WEST SIDE — EAST SIDE **Chino**

SOUTH SIDE

Euclid

ALL PED AND BIKE

	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
7:00 AM	0	1	0	0	1
7:15 AM	0	0	1	0	1
7:30 AM	0	1	0	1	2
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	1	0	0	1
9:00 AM	0	0	0	0	0
9:15 AM	0	0	0	0	0
9:30 AM	0	0	0	0	0
9:45 AM	0	0	0	0	0
TOTAL	0	3	1	1	5
3:00 PM	0	0	0	0	0
3:15 PM	0	0	0	0	0
3:30 PM	0	0	0	0	0
3:45 PM	0	0	0	0	0
4:00 PM	1	1	0	1	3
4:15 PM	0	0	0	0	0
4:30 PM	1	0	0	0	1
4:45 PM	1	0	0	0	1
5:00 PM	0	1	0	0	1
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	3	2	0	1	6

PEDESTRIAN CROSSINGS

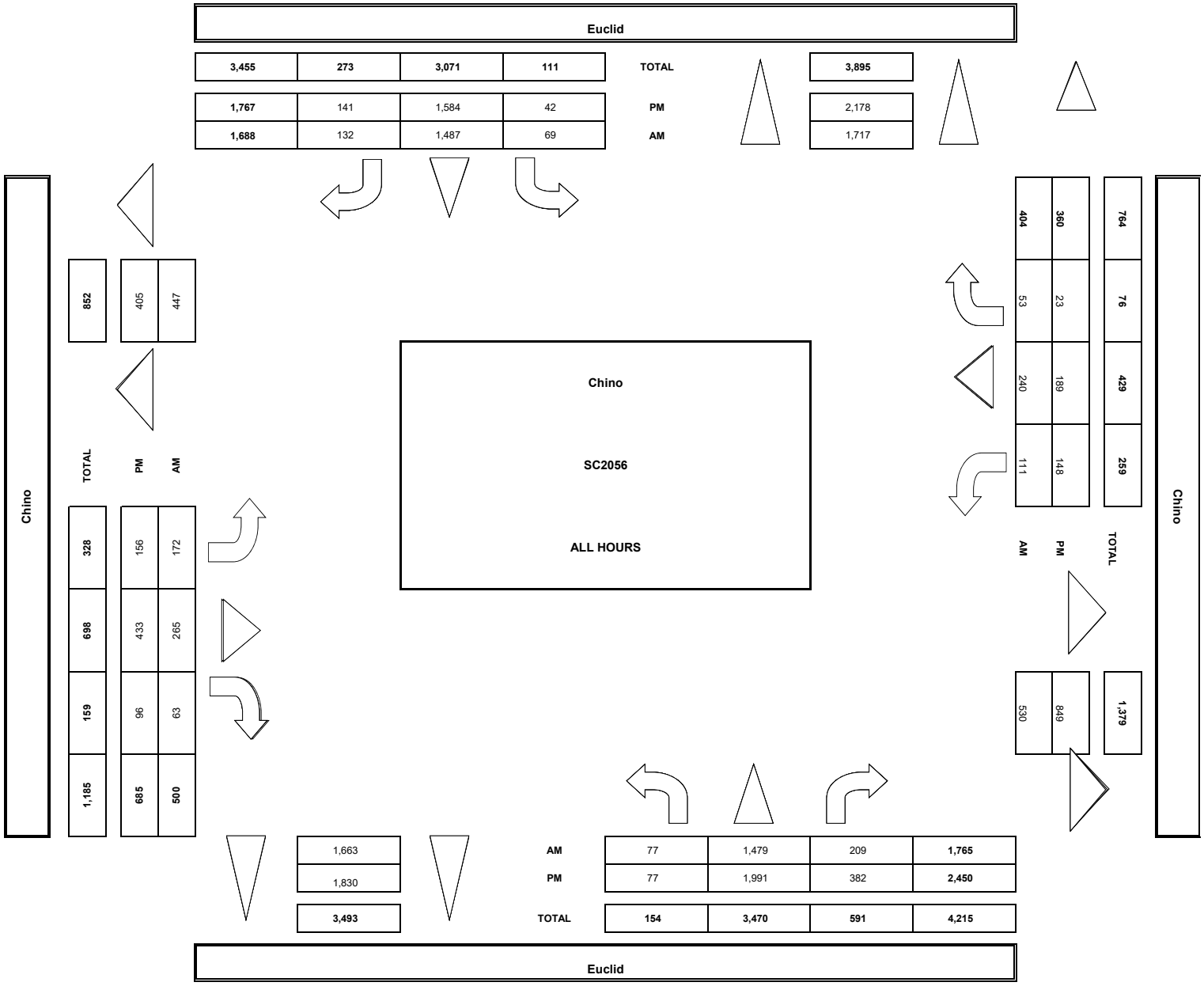
E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1

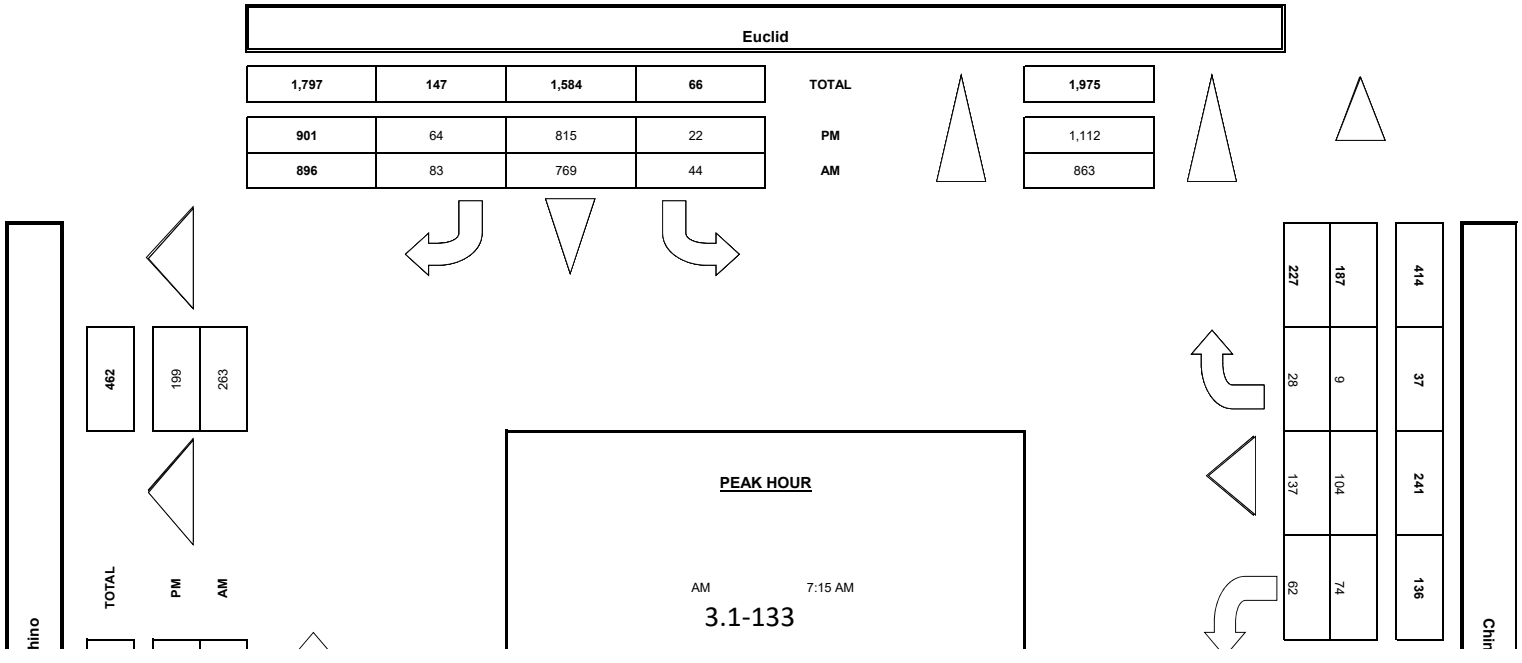
BICYCLE CROSSINGS

ES	WS	SS	NS	TOTAL
0	1	0	0	1
0	0	0	0	0
0	1	0	1	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	3	0	1	4
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	1	2
0	0	0	0	0
1	0	0	0	1
1	0	0	0	1
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
3	1	0	1	5

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:
1/24/19	NORTH & SOUTH:	Euclid	LOCATION #:
THURSDAY	EAST & WEST:	Chino	CONTROL:

CLASS 1:	NOTES:
PASSENGER VEHICLES	

		NORTHBOUND (Euclid)			SOUTHBOUND (Euclid)			EASTBOUND (Chino)		
		NL	NT	NR	SL	ST	SR	EL	ET	ER
	LANES:	1	2	1	1	2	1	1	1	1
AM	7:00 AM	6	136	24	3	139	6	16	31	4
	7:15 AM	7	149	24	4	127	10	29	39	7
	7:30 AM	16	163	23	6	149	21	18	43	5
	7:45 AM	5	130	23	12	158	16	20	41	14
	8:00 AM	5	153	30	7	157	23	14	20	6
	8:15 AM	12	130	14	4	138	18	15	26	6
	8:30 AM	8	147	20	6	123	13	23	25	8
	8:45 AM	4	124	26	3	130	4	10	18	7
	9:00 AM	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0
	VOLUMES	63	1,132	184	45	1,121	111	145	243	57
	APPROACH %	5%	82%	13%	4%	88%	9%	33%	55%	13%
	APP/DEPART	1,379	/	1,314	1,277	/	1,268	445	/	462
	BEGIN PEAK HR		7:15 AM							
	VOLUMES	33	595	100	23	591	70	81	143	32
	APPROACH %	5%	82%	14%	3%	86%	10%	32%	56%	13%
	PEAK HR FACTOR		0.901			0.922			0.853	
	APP/DEPART	728	/	699	690	/	675	256	/	266
PM	03:00 PM	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0
	4:00 PM	10	224	41	6	134	21	14	43	13
	4:15 PM	13	223	52	4	141	23	10	41	11
	4:30 PM	7	186	31	6	148	14	22	38	11
	4:45 PM	13	226	52	7	163	11	29	73	7
	5:00 PM	6	222	40	3	178	13	15	53	13
	5:15 PM	6	243	54	4	185	11	23	76	8
	5:30 PM	4	219	44	6	181	24	16	48	12
	5:45 PM	9	213	37	2	217	16	21	32	14
	VOLUMES	68	1,756	351	38	1,347	133	150	404	89
	APPROACH %	3%	81%	16%	3%	89%	9%	23%	63%	14%
	APP/DEPART	2,175	/	1,935	1,518	/	1,581	643	/	785
	BEGIN PEAK HR		4:45 PM							
	VOLUMES	29	910	190	18	707	59	83	250	40

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:
1/24/19	NORTH & SOUTH:	Euclid	LOCATION #:
THURSDAY	EAST & WEST:	Chino	CONTROL:

CLASS 2:	NOTES:	AM
2-AXLE		PM
WORK		MD
VEHICLES/		OTHER
TRUCKS		OTHER

		NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Chino			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL
	LANES:	1	2	1	1	2	1	1	1	1	0
AM	7:00 AM	1	11	0	1	31	1	4	0	1	1
	7:15 AM	1	11	1	3	18	0	2	3	1	0
	7:30 AM	2	13	1	1	14	1	4	3	0	2
	7:45 AM	1	17	3	0	24	3	0	1	0	1
	8:00 AM	1	22	0	1	25	2	1	4	0	2
	8:15 AM	0	20	0	2	21	2	1	1	1	2
	8:30 AM	1	35	2	1	14	0	1	2	0	1
	8:45 AM	0	44	3	1	11	2	4	3	2	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0
	VOLUMES	7	173	10	10	158	11	17	17	5	10
	APPROACH %	4%	91%	5%	6%	88%	6%	44%	44%	13%	36%
	APP/DEPART	190	/	199	179	/	173	39	/	37	28
	BEGIN PEAK HR		8:00 AM								
	VOLUMES	2	121	5	5	71	6	7	10	3	6
	APPROACH %	2%	95%	4%	6%	87%	7%	35%	50%	15%	35%
	PEAK HR FACTOR		0.681			0.732			0.556		
	APP/DEPART	128	/	133	82	/	80	20	/	20	17
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	18	7	0	12	0	0	2	1	1
	4:15 PM	1	12	3	0	13	0	0	2	1	0
	4:30 PM	0	13	2	0	14	1	0	3	0	0
	4:45 PM	0	11	6	0	16	1	1	3	1	1
	5:00 PM	0	9	3	1	7	1	0	1	1	0
	5:15 PM	1	12	3	0	9	2	0	3	0	1
	5:30 PM	0	10	1	0	10	0	0	3	1	0
	5:45 PM	0	11	0	1	7	0	0	5	0	1
	VOLUMES	2	96	25	2	88	5	1	22	5	4
	APPROACH %	2%	78%	20%	2%	93%	5%	4%	79%	18%	44%
	APP/DEPART	123	/	97	95	/	97	28	/	49	9
	BEGIN PEAK HR		4:00 PM		3.1-135						
	VOLUMES	1	54	18	0	55	2	1	10	3	2

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:
1/24/19	NORTH & SOUTH:	Euclid	LOCATION #:
THURSDAY	EAST & WEST:	Chino	CONTROL:

CLASS 3:	NOTES:
3-AXLE TRUCKS	

	NORTHBOUND (Euclid)			SOUTHBOUND (Euclid)			EASTBOUND (Chino)		
	NL	NT	NR	SL	ST	SR	EL	ET	ER
LANES:	1	2	1	1	2	1	1	1	1
AM									
7:00 AM	0	5	1	0	3	0	1	0	0
7:15 AM	1	2	0	0	2	0	0	0	0
7:30 AM	0	5	0	1	5	0	0	0	0
7:45 AM	0	2	1	0	5	1	1	0	0
8:00 AM	0	5	1	1	2	0	0	0	0
8:15 AM	0	3	1	1	5	0	0	1	0
8:30 AM	0	6	1	0	4	0	0	0	0
8:45 AM	0	11	1	2	5	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0
VOLUMES	1	39	6	5	31	1	2	1	0
APPROACH %	2%	85%	13%	14%	84%	3%	67%	33%	0%
APP/DEPART	46	/	49	37	/	38	3	/	11
BEGIN PEAK HR		8:00 AM							
VOLUMES	0	25	4	3	16	0	0	1	0
APPROACH %	0%	86%	14%	15%	80%	0%	0%	100%	0%
PEAK HR FACTOR		0.604			0.714			0.250	
APP/DEPART	29	/	30	20	/	18	1	/	8
PM									
03:00 PM	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0
4:00 PM	0	6	0	0	4	0	0	0	0
4:15 PM	0	5	0	0	3	0	0	0	0
4:30 PM	0	2	0	0	2	0	0	0	0
4:45 PM	0	4	1	0	3	0	0	2	1
5:00 PM	0	2	0	0	3	1	0	0	0
5:15 PM	0	1	1	1	0	0	0	0	0
5:30 PM	0	7	1	0	2	0	0	0	0
5:45 PM	0	4	0	0	3	0	0	0	0
VOLUMES	0	31	3	1	20	1	0	2	1
APPROACH %	0%	91%	9%	5%	91%	5%	0%	67%	33%
APP/DEPART	34	/	32	22	/	21	3	/	6
BEGIN PEAK HR		4:00 PM							
VOLUMES	0	17	1	0	12	0	0	2	1

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:
1/24/19	NORTH & SOUTH:	Euclid	LOCATION #:
THURSDAY	EAST & WEST:	Chino	CONTROL:

CLASS 4:	NOTES:	AM
4 OR MORE		PM
AXLE		MD
TRUCKS		OTHER
		OTHER

		NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Chino			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL
	LANES:	1	2	1	1	2	1	1	1	1	0
AM	7:00 AM	1	11	0	0	15	0	1	0	0	1
	7:15 AM	2	14	0	0	18	0	0	0	0	1
	7:30 AM	2	9	3	2	21	1	1	1	0	0
	7:45 AM	0	17	0	2	23	4	0	0	0	2
	8:00 AM	0	17	1	3	17	1	1	0	0	0
	8:15 AM	0	20	1	0	23	1	1	0	1	0
	8:30 AM	1	20	3	0	26	1	1	0	0	0
	8:45 AM	0	18	0	1	27	0	1	1	0	2
	9:00 AM	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0
	VOLUMES	6	126	8	8	170	8	6	2	1	6
	APPROACH %	4%	90%	6%	4%	91%	4%	67%	22%	11%	32%
	APP/DEPART	140	/	143	186	/	177	9	/	17	19
	BEGIN PEAK HR		8:00 AM								
	VOLUMES	1	75	5	3	93	3	4	1	1	2
	APPROACH %	1%	93%	6%	3%	93%	3%	67%	17%	17%	15%
	PEAK HR FACTOR		0.844			0.893			0.750		
	APP/DEPART	81	/	88	100	/	96	6	/	9	13
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0
	4:00 PM	1	15	0	1	19	1	0	1	0	0
	4:15 PM	2	11	0	0	19	1	2	0	0	0
	4:30 PM	0	15	0	0	21	0	1	0	0	0
	4:45 PM	0	11	0	0	13	0	0	0	0	0
	5:00 PM	1	12	1	0	14	0	0	1	0	0
	5:15 PM	0	11	2	0	14	0	0	1	0	0
	5:30 PM	0	12	0	0	14	0	1	0	0	0
	5:45 PM	0	15	0	0	10	0	0	1	0	0
	VOLUMES	4	102	3	1	124	2	4	4	0	0
	APPROACH %	4%	94%	3%	1%	98%	2%	50%	50%	0%	0%
	APP/DEPART	109	/	106	127	/	124	8	/	8	1
	BEGIN PEAK HR		4:00 PM								
	VOLUMES	3	52	0	1	72	2	3	1	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:
1/24/19	NORTH & SOUTH:	Euclid	LOCATION #:
THURSDAY	EAST & WEST:	Chino	CONTROL:

CLASS 5:	NOTES:
RV	

AM
PM
MD
OTHER
OTHER

	NORTHBOUND (Euclid)			SOUTHBOUND (Euclid)			EASTBOUND (Chino)			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL
LANES:	1	2	1	1	2	1	1	1	1	0
AM										
7:00 AM	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
APP/DEPART	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR		7:00 AM								
VOLUMES	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PEAK HR FACTOR		0.000			0.000			0.000		
APP/DEPART	0	/	0	0	/	0	0	/	0	0
PM										
03:00 PM	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	1	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	1	0
VOLUMES	0	0	0	0	1	0	0	0	1	0
APPROACH %	0%	0%	0%	0%	100%	0%	0%	0%	100%	0%
APP/DEPART	0	/	1	1	/	2	1	/	0	1
BEGIN PEAK HR		5:00 PM								
VOLUMES	0	0	0	0	0	0	0	0	1	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:
1/24/19	NORTH & SOUTH:	Euclid	LOCATION #:
THURSDAY	EAST & WEST:	Chino	CONTROL:

CLASS 6:	NOTES:
BUSES	

AM
PM
MD
OTHER
OTHER

		NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Chino			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL
	LANES:	1	2	1	1	2	1	1	1	1	0
AM	7:00 AM	0	2	0	0	0	0	0	0	0	0
	7:15 AM	0	2	0	0	1	0	0	0	0	0
	7:30 AM	0	2	0	0	2	0	0	1	0	0
	7:45 AM	0	0	0	0	1	0	0	1	0	0
	8:00 AM	0	2	1	0	0	0	1	0	0	0
	8:15 AM	0	1	0	0	2	0	0	0	0	0
	8:30 AM	0	0	0	0	1	1	1	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	9	1	0	7	1	2	2	0	0
	APPROACH %	0%	90%	10%	0%	88%	13%	50%	50%	0%	0%
	APP/DEPART	10	/	11	8	/	7	4	/	3	2
	BEGIN PEAK HR		7:15 AM								
	VOLUMES	0	6	1	0	4	0	1	2	0	0
	APPROACH %	0%	86%	14%	0%	100%	0%	33%	67%	0%	0%
	PEAK HR FACTOR		0.583			0.500			0.750		
	APP/DEPART	7	/	7	4	/	4	3	/	3	2
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0
	4:00 PM	1	0	0	0	0	0	0	1	0	0
	4:15 PM	1	1	0	0	0	0	0	0	0	0
	4:30 PM	0	2	0	0	1	0	0	0	0	0
	4:45 PM	0	1	0	0	1	0	1	0	0	0
	5:00 PM	0	1	0	0	1	0	0	0	0	0
	5:15 PM	0	1	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	1	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0
	VOLUMES	2	6	0	0	4	0	1	1	0	0
	APPROACH %	25%	75%	0%	0%	100%	0%	50%	50%	0%	0%
	APP/DEPART	8	/	7	4	/	4	2	/	1	0
	BEGIN PEAK HR		4:00 PM								
	VOLUMES	1	5	0	0	3	0	1	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
Tue, Jan 22, 19	NORTH & SOUTH:	Euclid	LOCATION #:	13
	EAST & WEST:	Schaefer	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

Add U-Turns to Left Turns

		NORTHBOUND (Euclid)			SOUTHBOUND (Euclid)			EASTBOUND (Schaefer)			WESTBOUND (Schaefer)			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	24	143	3	4	188	34	29	12	20	8	24	6	495
	7:15 AM	32	186	4	4	170	32	39	9	9	39	36	2	562
	7:30 AM	23	221	10	8	185	21	34	22	12	6	41	3	586
	7:45 AM	30	176	4	8	212	33	40	24	12	30	56	3	628
	8:00 AM	14	188	8	6	180	31	35	13	20	32	38	2	567
	8:15 AM	28	175	4	5	193	29	32	13	10	32	31	4	556
	8:30 AM	25	207	8	11	188	20	46	26	17	7	29	2	586
	8:45 AM	28	190	5	8	157	28	28	16	21	16	20	4	521
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	204	1,486	46	54	1,473	228	283	135	121	170	275	26	4,501
	APPROACH %	12%	86%	3%	3%	84%	13%	53%	25%	22%	36%	58%	6%	
	APP/DEPART	1,736	/	1,798	1,755	/	1,766	539	/	232	471	/	705	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	99	771	26	26	747	117	148	68	53	107	171	10	2,343
	APPROACH %	11%	86%	3%	3%	84%	13%	55%	25%	20%	37%	59%	3%	
	PEAK HR FACTOR		0.882			0.879			0.885			0.809		0.933
	APP/DEPART	896	/	929	890	/	908	269	/	120	288	/	386	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	25	217	8	9	164	32	53	49	34	8	18	5	622
	4:15 PM	22	213	14	2	162	23	64	50	26	12	14	7	609
	4:30 PM	24	207	12	6	180	17	67	61	41	12	12	1	640
	4:45 PM	26	262	19	4	200	23	57	74	32	15	19	5	736
	5:00 PM	26	218	16	6	224	29	71	72	42	18	17	5	744
	5:15 PM	12	246	14	4	214	25	65	71	49	19	16	6	741
	5:30 PM	17	194	16	9	235	30	76	53	49	21	7	6	713
	5:45 PM	16	239	10	5	182	17	67	57	28	10	9	3	643
	VOLUMES	168	1,796	109	45	1,561	196	520	487	301	115	112	38	5,448
	APPROACH %	8%	87%	5%	2%	87%	11%	40%	37%	23%	43%	42%	14%	
	APP/DEPART	2,073	/	2,355	1,802	/	1,985	1,308	/	640	265	/	468	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	81	920	65	23	873	107	269	270	172	73	59	22	2,934
	APPROACH %	8%	86%	6%	2%	87%	11%	38%	38%	24%	47%	38%	14%	
	PEAK HR FACTOR		0.868			0.915			0.961			0.939		0.986
	APP/DEPART	1,066	/	1,211	1,003	/	1,122	711	/	358	154	/	243	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	1	0	0	2
0	0	0	0	0
0	2	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
2	3	0	0	5
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
3	0	0	0	3
0	0	0	0	0
3	0	0	0	3
0	0	0	0	0
1	0	0	0	1
8	1	0	0	9

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
2	11	11	1
0	11	4	0
4	6	5	2
2	11	1	0
3	4	8	0
1	8	3	0
3	7	6	0
1	8	10	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
16	66	48	3
9	32	18	2
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
2	15	6	0
1	6	13	4
4	1	18	0
6	6	13	0
1	12	8	0
5	5	10	2
6	7	10	3
5	1	9	0
30	53	87	9
18	30	41	5

Euclid

NORTH SIDE

Schaefer WEST SIDE EAST SIDE **Schaefer**

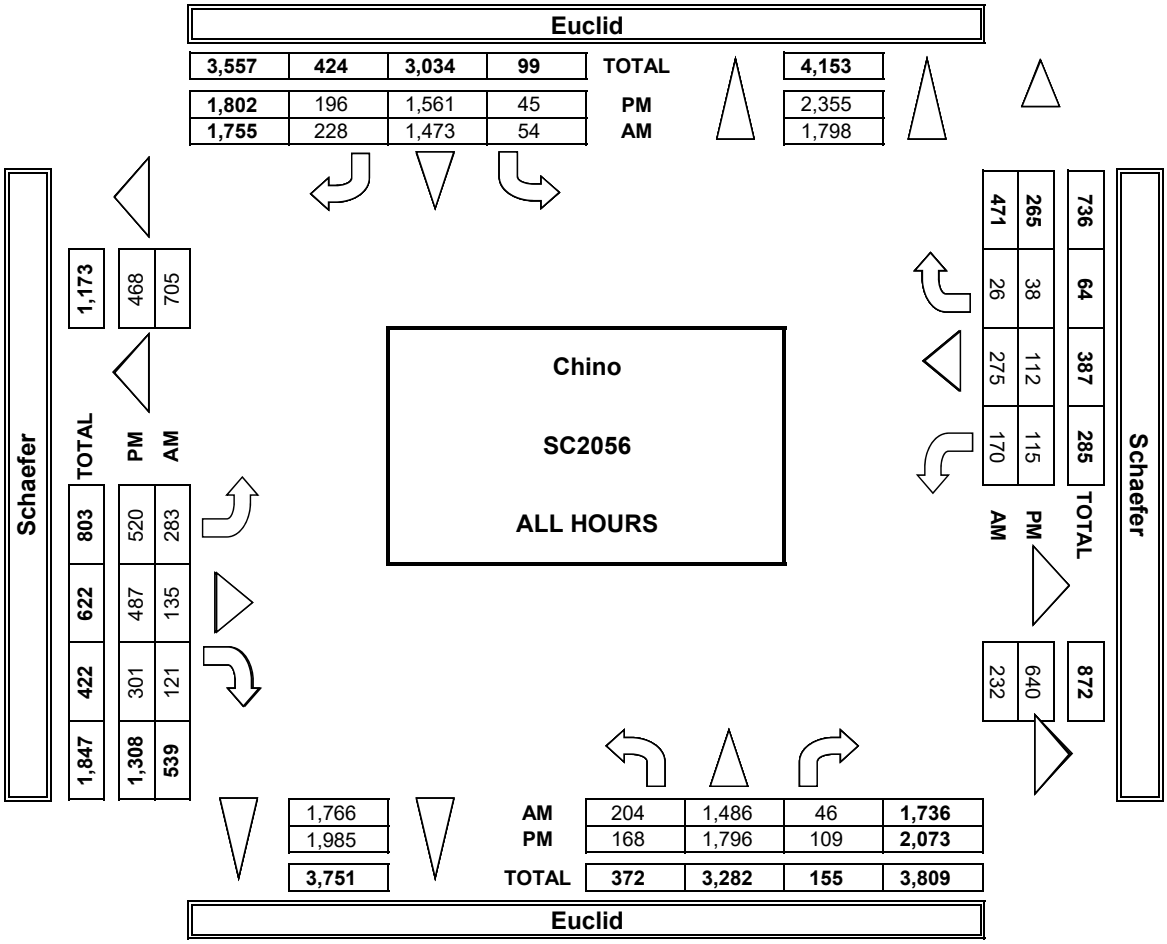
SOUTH SIDE

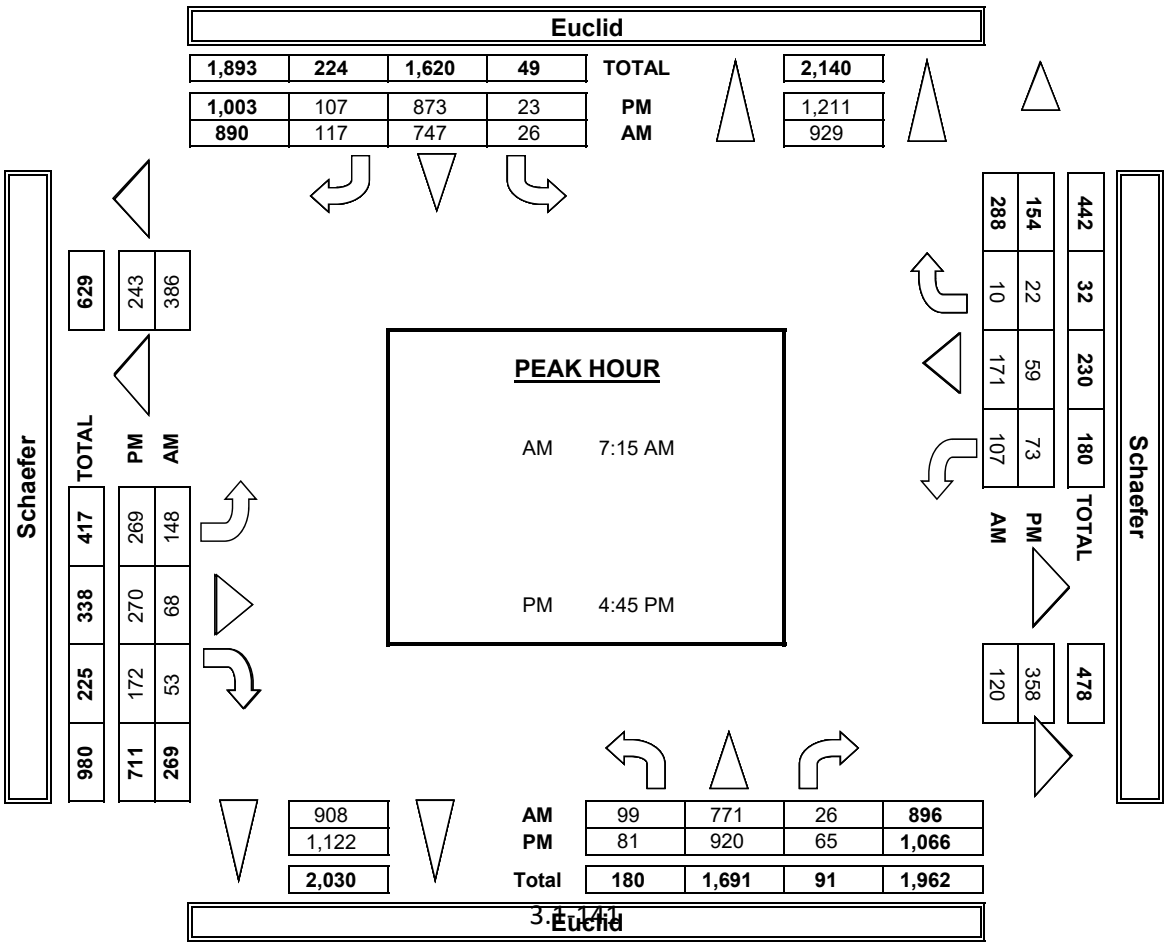
Euclid

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	7:15 AM	0	0	0	2	2	0	0	0	2	2	0	0	0	0	0
	7:30 AM	0	2	0	1	3	0	2	0	1	3	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	8:30 AM	0	2	0	1	3	0	1	0	1	2	0	1	0	0	1
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	1	5	0	4	10	1	3	0	4	8	0	2	0	0	2
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/22/19	NORTH & SOUTH:	Euclid	LOCATION #:	13
TUESDAY	EAST & WEST:	Schaefer	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Euclid)			SOUTHBOUND (Euclid)			EASTBOUND (Schaefer)			WESTBOUND (Schaefer)			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	23	116	3	3	152	30	26	11	16	8	24	3	415
	7:15 AM	30	148	1	2	132	31	38	8	7	14	35	2	448
	7:30 AM	21	191	10	8	154	20	32	20	10	6	41	3	516
	7:45 AM	28	140	2	6	167	30	37	20	11	27	51	2	521
	8:00 AM	14	157	6	6	148	30	31	11	15	9	37	2	466
	8:15 AM	27	140	3	5	153	28	28	13	9	8	28	2	444
	8:30 AM	21	158	7	10	143	20	45	24	16	4	26	1	475
	8:45 AM	21	141	5	6	99	27	26	15	18	9	19	1	387
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	185	1,191	37	46	1,148	216	263	122	102	85	261	16	3,672
	APPROACH %	13%	84%	3%	3%	81%	15%	54%	25%	21%	23%	72%	4%	
	APP/DEPART	1,413	/	1,472	1,410	/	1,337	487	/	203	362	/	660	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	92	636	19	22	601	111	138	59	43	56	164	9	1,951
	APPROACH %	12%	85%	3%	3%	82%	15%	58%	25%	18%	24%	72%	4%	
	PEAK HR FACTOR		0.842			0.904			0.882			0.716		0.936
	APP/DEPART	748	/	783	734	/	701	240	/	100	229	/	367	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	25	177	8	5	122	31	48	48	30	7	17	2	520
	4:15 PM	21	185	10	0	131	22	59	46	26	9	12	5	526
	4:30 PM	23	169	6	6	150	15	64	60	37	11	12	1	554
	4:45 PM	26	225	16	4	162	23	55	73	30	15	15	4	648
	5:00 PM	25	186	11	4	189	27	66	69	39	16	17	4	653
	5:15 PM	12	218	10	4	197	24	62	69	47	19	15	6	683
	5:30 PM	17	160	12	8	209	29	70	51	49	21	6	6	638
	5:45 PM	15	209	3	4	162	17	66	55	26	10	9	2	578
	VOLUMES	164	1,529	76	35	1,322	188	490	471	284	108	103	30	4,800
	APPROACH %	9%	86%	4%	2%	86%	12%	39%	38%	23%	45%	43%	12%	
	APP/DEPART	1,769	/	2,050	1,545	/	1,722	1,245	/	581	241	/	447	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	76	789	49	20	757	103	253	262	165	71	53	20	2,622
	APPROACH %	8%	86%	5%	2%	86%	12%	37%	39%	24%	49%	37%	14%	
	PEAK HR FACTOR		0.860			0.894			0.955			0.900		0.960
	APP/DEPART	918	/	1,062	880	/	997	680	/	331	144	/	232	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
1	1	0	0	2
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
2	2	0	0	4
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
8	1	0	0	9

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
2	8	10	0
0	11	4	0
4	6	4	2
2	10	1	0
2	4	5	0
0	7	3	0
2	7	6	0
1	8	9	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
13	61	42	2
8	31	14	2
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
2	15	3	0
1	6	13	4
1	1	18	0
5	6	13	0
1	10	6	0
5	5	10	2
6	6	10	3
0	1	8	0
21	50	81	9
17	27	39	5

Euclid

NORTH SIDE

Schaefer WEST SIDE EAST SIDE **Schaefer**

SOUTH SIDE

Euclid

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/22/19	NORTH & SOUTH:	Euclid	LOCATION #:	13
TUESDAY	EAST & WEST:	Schaefer	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Euclid)			SOUTHBOUND (Euclid)			EASTBOUND (Schaefer)			WESTBOUND (Schaefer)			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	1	13	0	1	21	4	2	1	3	0	0	2	48
	7:15 AM	2	16	1	0	18	1	1	1	1	23	0	0	64
	7:30 AM	2	12	0	0	16	1	1	2	2	0	0	0	36
	7:45 AM	1	13	1	2	19	2	1	4	1	1	3	0	48
	8:00 AM	0	12	0	0	13	1	3	2	4	18	0	0	53
	8:15 AM	1	10	0	0	17	1	4	0	1	23	2	0	59
	8:30 AM	2	20	1	0	18	0	0	2	0	2	2	0	47
	8:45 AM	4	16	0	0	20	1	1	1	2	7	1	0	53
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	13	112	3	3	142	11	13	13	14	74	8	2	408
	APPROACH %	10%	88%	2%	2%	91%	7%	33%	33%	35%	88%	10%	2%	
	APP/DEPART	128	/	127	156	/	230	40	/	19	84	/	32	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	7	58	1	0	68	3	8	5	7	50	5	0	212
	APPROACH %	11%	88%	2%	0%	96%	4%	40%	25%	35%	91%	9%	0%	
	PEAK HR FACTOR		0.717			0.845			0.556			0.550		0.898
	APP/DEPART	66	/	66	71	/	125	20	/	6	55	/	15	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	18	0	1	17	1	5	0	3	0	0	0	45
	4:15 PM	1	10	3	1	14	1	4	3	0	1	2	0	40
	4:30 PM	0	16	4	0	12	1	3	1	4	0	0	0	41
	4:45 PM	0	13	0	0	18	0	1	1	2	0	3	1	39
	5:00 PM	1	13	5	0	13	1	3	3	2	1	0	0	42
	5:15 PM	0	13	3	0	10	0	3	1	1	0	0	0	31
	5:30 PM	0	12	3	0	7	1	6	2	0	0	1	0	32
	5:45 PM	0	11	7	1	7	0	1	1	2	0	0	0	30
	VOLUMES	2	106	25	3	98	5	26	12	14	2	6	1	300
	APPROACH %	2%	80%	19%	3%	92%	5%	50%	23%	27%	22%	67%	11%	
	APP/DEPART	133	/	133	106	/	114	52	/	40	9	/	13	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	1	57	7	2	61	3	13	5	9	1	5	1	165
	APPROACH %	2%	88%	11%	3%	92%	5%	48%	19%	33%	14%	71%	14%	
	PEAK HR FACTOR		0.813			0.868			0.844			0.438		0.917
	APP/DEPART	65	/	71	66	/	71	27	/	14	7	/	9	0

U-TURNS					
NB	SB	EB	WB	TTL	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/22/19	NORTH & SOUTH:	Euclid	LOCATION #:	13
TUESDAY	EAST & WEST:	Schaefer	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND (Euclid)			SOUTHBOUND (Euclid)			EASTBOUND (Schaefer)			WESTBOUND (Schaefer)			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
7:00 AM	0	3	0	0	3	0	0	0	1	0	0	0	7
7:15 AM	0	6	0	2	5	0	0	0	0	1	0	0	14
7:30 AM	0	7	0	0	4	0	1	0	0	0	0	0	12
7:45 AM	0	4	0	0	7	0	1	0	0	1	0	1	14
8:00 AM	0	3	0	0	2	0	0	0	1	4	0	0	10
8:15 AM	0	4	1	0	2	0	0	0	0	0	1	0	8
8:30 AM	1	8	0	1	7	0	0	0	0	0	0	0	17
8:45 AM	1	10	0	0	5	0	0	0	0	0	0	1	17
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	2	45	1	3	35	0	2	0	2	6	1	2	99
APPROACH %	4%	94%	2%	8%	92%	0%	50%	0%	50%	67%	11%	22%	
APP/DEPART	48	/	49	38	/	43	4	/	4	9	/	3	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	2	25	1	1	16	0	0	0	1	4	1	1	52
APPROACH %	7%	89%	4%	6%	94%	0%	0%	0%	100%	67%	17%	17%	
PEAK HR FACTOR		0.636			0.531			0.250			0.375		0.765
APP/DEPART	28	/	26	17	/	21	1	/	2	6	/	3	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	4	0	0	5	0	0	1	0	0	1	3	14
4:15 PM	0	2	1	0	3	0	1	0	0	2	0	0	9
4:30 PM	0	3	2	0	3	0	0	0	0	0	0	0	8
4:45 PM	0	5	0	0	1	0	1	0	0	0	1	0	8
5:00 PM	0	2	0	0	7	0	1	0	0	0	0	0	10
5:15 PM	0	3	0	0	1	1	0	0	1	0	0	0	6
5:30 PM	0	0	1	1	4	0	0	0	0	0	0	0	6
5:45 PM	0	5	0	0	0	0	0	1	0	0	0	0	6
VOLUMES	0	24	4	1	24	1	3	2	1	2	2	3	67
APPROACH %	0%	86%	14%	4%	92%	4%	50%	33%	17%	29%	29%	43%	
APP/DEPART	28	/	30	26	/	27	6	/	7	7	/	3	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	14	3	0	12	0	2	1	0	2	2	3	39
APPROACH %	0%	82%	18%	0%	100%	0%	67%	33%	0%	29%	29%	43%	
PEAK HR FACTOR		0.850			0.600			0.750			0.438		0.696
APP/DEPART	17	/	19	12	/	14	3	/	4	7	/	2	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
1	0	0	0

Euclid

NORTH SIDE

Schaefer WEST SIDE EAST SIDE **Schaefer**

SOUTH SIDE

Euclid

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/22/19	NORTH & SOUTH:	Euclid	LOCATION #:	13
TUESDAY	EAST & WEST:	Schaefer	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

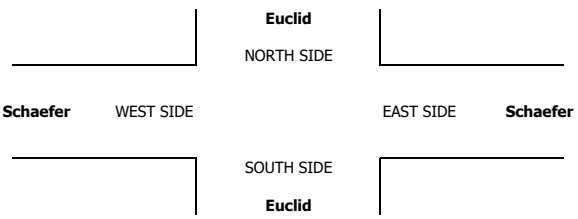
		NORTHBOUND (Euclid)			SOUTHBOUND (Euclid)			EASTBOUND (Schaefer)			WESTBOUND (Schaefer)			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	0	11	0	0	12	0	0	0	0	0	0	1	24
	7:15 AM	0	14	2	0	15	0	0	0	0	1	1	0	33
	7:30 AM	0	9	0	0	8	0	0	0	0	0	0	0	17
	7:45 AM	0	19	1	0	18	1	0	0	0	1	1	0	41
	8:00 AM	0	16	1	0	17	0	0	0	0	1	0	0	35
	8:15 AM	0	20	0	0	21	0	0	0	0	1	0	1	43
	8:30 AM	0	19	0	0	19	0	0	0	1	1	1	1	42
	8:45 AM	2	23	0	2	32	0	1	0	1	0	0	2	63
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	2	131	4	2	142	1	1	0	2	5	3	5	298
	APPROACH %	1%	96%	3%	1%	98%	1%	33%	0%	67%	38%	23%	38%	
	APP/DEPART	137	/	138	145	/	149	3	/	5	13	/	6	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	2	78	1	1	89	0	1	0	2	3	1	4	183
	APPROACH %	2%	96%	1%	1%	98%	0%	33%	0%	67%	38%	13%	50%	
	PEAK HR FACTOR		0.810			0.669			0.375			0.667		0.726
	APP/DEPART	81	/	84	91	/	94	3	/	2	8	/	3	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	16	0	3	20	0	0	0	1	1	0	0	41
	4:15 PM	0	13	0	1	14	0	0	1	0	0	0	2	31
	4:30 PM	1	19	0	0	15	1	0	0	0	1	0	0	37
	4:45 PM	0	18	3	0	18	0	0	0	0	0	0	0	39
	5:00 PM	0	17	0	2	15	1	1	0	1	1	0	1	39
	5:15 PM	0	10	1	0	6	0	0	1	0	0	1	0	19
	5:30 PM	0	22	0	0	14	0	0	0	0	0	0	0	36
	5:45 PM	1	14	0	0	12	0	0	0	0	0	0	1	28
	VOLUMES	2	129	4	6	114	2	1	2	2	3	1	4	270
	APPROACH %	1%	96%	3%	5%	93%	2%	20%	40%	40%	38%	13%	50%	
	APP/DEPART	135	/	134	122	/	119	5	/	12	8	/	5	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	1	66	3	4	67	1	0	1	1	2	0	2	148
	APPROACH %	1%	94%	4%	6%	93%	1%	0%	50%	50%	50%	0%	50%	
	PEAK HR FACTOR		0.833			0.783			0.500			0.500		0.902
	APP/DEPART	70	/	68	72	/	70	2	/	8	4	/	2	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	1	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	1	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	1	2	0
1	0	1	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/22/19	NORTH & SOUTH:	Euclid	LOCATION #:	13
TUESDAY	EAST & WEST:	Schaefer	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND (Euclid)			SOUTHBOUND (Euclid)			EASTBOUND (Schaefer)			WESTBOUND (Schaefer)			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
AM													
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM													
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
VOLUMES	0	1	0	0	1	0	0	0	0	0	0	0	2
APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	1	/	1	1	/	1	0	/	0	0	/	0	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	0	1	0	0	1	0	0	0	0	0	0	0	2
APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.250			0.250			0.000			0.000		0.500
APP/DEPART	1	/	1	1	/	1	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Chino	PROJECT #:	SC2056
1/22/19	NORTH & SOUTH:	Euclid	LOCATION #:	13
TUESDAY	EAST & WEST:	Schaefer	CONTROL:	SIGNAL

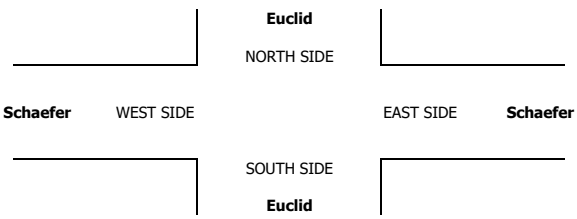
CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Euclid)			SOUTHBOUND (Euclid)			EASTBOUND (Schaefer)			WESTBOUND (Schaefer)			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
	7:15 AM	0	2	0	0	0	0	0	0	1	0	0	0	3
	7:30 AM	0	2	0	0	3	0	0	0	0	0	0	0	5
	7:45 AM	1	0	0	0	1	0	1	0	0	0	1	0	4
	8:00 AM	0	0	1	0	0	0	1	0	0	0	1	0	3
	8:15 AM	0	1	0	0	0	0	0	0	0	0	0	1	2
	8:30 AM	1	2	0	0	1	0	1	0	0	0	0	0	5
	8:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	2	7	1	0	6	0	4	0	1	0	2	1	24
	APPROACH %	20%	70%	10%	0%	100%	0%	80%	0%	20%	0%	67%	33%	
	APP/DEPART	10	/	12	6	/	7	5	/	1	3	/	4	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	1	4	1	0	4	0	2	0	1	0	2	0	15
	APPROACH %	17%	67%	17%	0%	100%	0%	67%	0%	33%	0%	100%	0%	
	PEAK HR FACTOR		0.750			0.333			0.750			0.500		0.750
	APP/DEPART	6	/	6	4	/	5	3	/	1	2	/	3	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
	4:15 PM	0	3	0	0	0	0	0	0	0	0	0	0	3
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	5:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	7	0	0	2	0	0	0	0	0	0	0	9
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	7	/	7	2	/	2	0	/	0	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	6	0	0	1	0	0	0	0	0	0	0	7
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.500			0.250			0.000			0.000		0.583
	APP/DEPART	6	/	6	1	/	1	0	/	0	0	/	0	0

U-TURNS					
NB	SB	EB	WB	TTL	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	

RTOR			
NRR 0	SRR 0	ERR 0	WRR 0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wed, Jan 23, 19

LOCATION: Chino
NORTH & SOUTH: Euclid
EAST & WEST: Edison

PROJECT #: SC2056
LOCATION #: 14
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W E ►
S ▼

☑ Add U-Turns to Left Turns

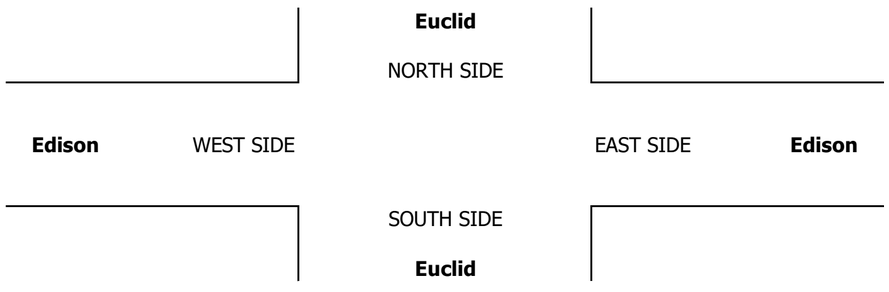
		NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Edison			WESTBOUND Edison			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	41	177	5	5	145	38	20	32	18	8	87	12	588
	7:15 AM	49	169	5	12	190	29	16	44	19	9	102	10	654
	7:30 AM	46	213	9	18	149	36	29	58	25	7	93	11	694
	7:45 AM	43	203	7	6	181	36	29	62	17	0	91	10	685
	8:00 AM	42	161	6	12	157	26	27	44	23	12	96	16	622
	8:15 AM	42	164	8	11	117	28	27	48	19	7	87	14	572
	8:30 AM	55	209	12	11	165	45	18	38	15	5	94	14	681
	8:45 AM	56	178	6	10	170	44	16	37	32	15	96	8	668
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	374	1,474	58	85	1,274	282	182	363	168	63	746	95	5,164
	APPROACH %	20%	77%	3%	5%	78%	17%	26%	51%	24%	7%	83%	11%	
	APP/DEPART	1,906	/	1,761	1,641	/	1,510	713	/	496	904	/	1,397	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	180	746	27	48	677	127	101	208	84	28	382	47	2,655
	APPROACH %	19%	78%	3%	6%	79%	15%	26%	53%	21%	6%	84%	10%	
	PEAK HR FACTOR		0.889			0.922			0.877			0.921		0.956
	APP/DEPART	953	/	898	852	/	790	393	/	279	457	/	688	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	32	228	20	17	148	40	48	59	47	2	38	13	692
	4:15 PM	30	249	14	9	181	44	45	118	58	6	69	8	831
	4:30 PM	41	218	12	20	203	35	37	100	52	2	82	8	810
	4:45 PM	31	245	12	24	258	31	48	109	71	8	72	6	915
	5:00 PM	31	259	11	13	258	29	52	100	61	6	54	7	881
	5:15 PM	33	216	12	21	259	43	41	106	57	10	63	7	868
	5:30 PM	27	208	16	17	239	35	51	88	67	6	46	13	813
	5:45 PM	20	200	7	16	243	33	55	87	62	4	40	8	775
	VOLUMES	245	1,823	104	137	1,789	290	377	767	475	44	464	70	6,585
	APPROACH %	11%	84%	5%	6%	81%	13%	23%	47%	29%	8%	80%	12%	
	APP/DEPART	2,172	/	2,286	2,216	/	2,318	1,619	/	992	578	/	989	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	122	928	51	75	1,014	138	192	403	256	30	235	33	3,477
	APPROACH %	11%	84%	5%	6%	83%	11%	23%	47%	30%	10%	79%	11%	
	PEAK HR FACTOR		0.914			0.950			0.933			0.866		0.950
	APP/DEPART	1,101	/	1,163	1,227	/	1,305	851	/	519	298	/	490	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	
1	0	0	0	1
0	0	0	0	0
0	3	0	0	3
0	0	0	0	0
1	1	0	0	2
0	0	0	0	0
2	1	0	0	3
1	5	0	0	6
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
5	10	0	0	15
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	1	0	0	2
2	2	0	0	4
1	3	0	0	4
0	2	0	0	2
4	3	0	0	7
0	4	0	0	4
1	1	0	0	2
1	0	0	0	1
10	16	0	0	26

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
2	12	7	2
0	6	13	1
5	12	12	1
2	18	10	2
1	13	18	1
1	15	10	2
5	14	9	3
2	13	19	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
18	103	98	12
8	49	53	5
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
2	9	20	4
2	11	26	0
1	10	21	3
1	7	20	2
2	5	23	0
1	12	15	1
4	6	20	3
1	10	18	1
14	70	163	14
8	30	78	6



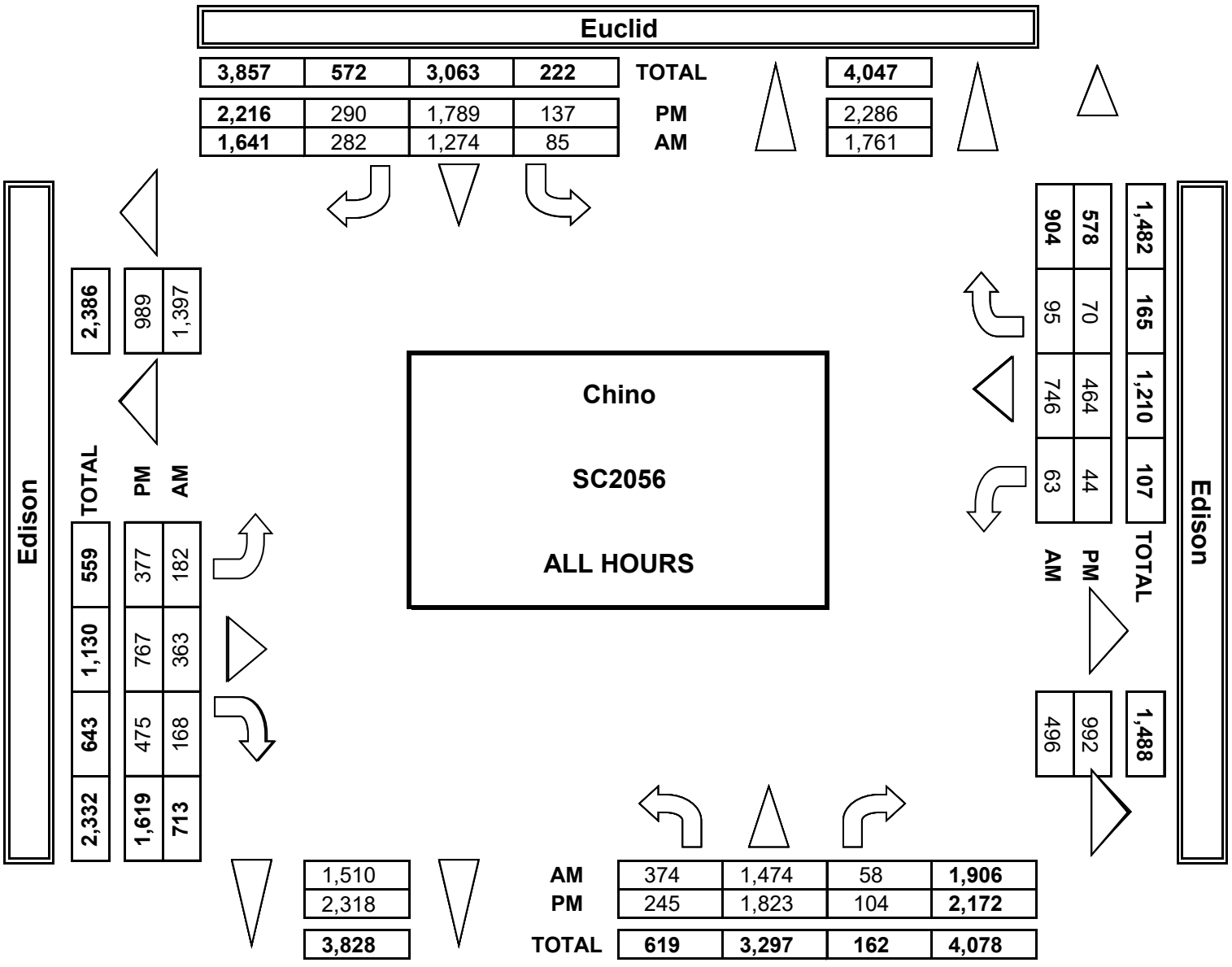
		ALL PED AND BIKE				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	1	1	0	2
	7:45 AM	0	1	0	0	1
	8:00 AM	0	1	0	1	2
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	1	0	0	1
	9:00 AM	0	0	0	0	0
	9:15 AM	0	0	0	0	0
	9:30 AM	0	0	0	0	0
	9:45 AM	0	0	0	0	0
	TOTAL	0	4	1	1	6
PM	3:00 PM	0	0	0	0	0
	3:15 PM	0	0	0	0	0
	3:30 PM	0	0	0	0	0
	3:45 PM	0	0	0	0	0
	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	1	0	0	0	1
	4:45 PM	0	0	0	1	1
	5:00 PM	0	0	0	0	0
	5:15 PM	2	0	0	0	2
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	1	1
	TOTAL	3	0	0	2	5

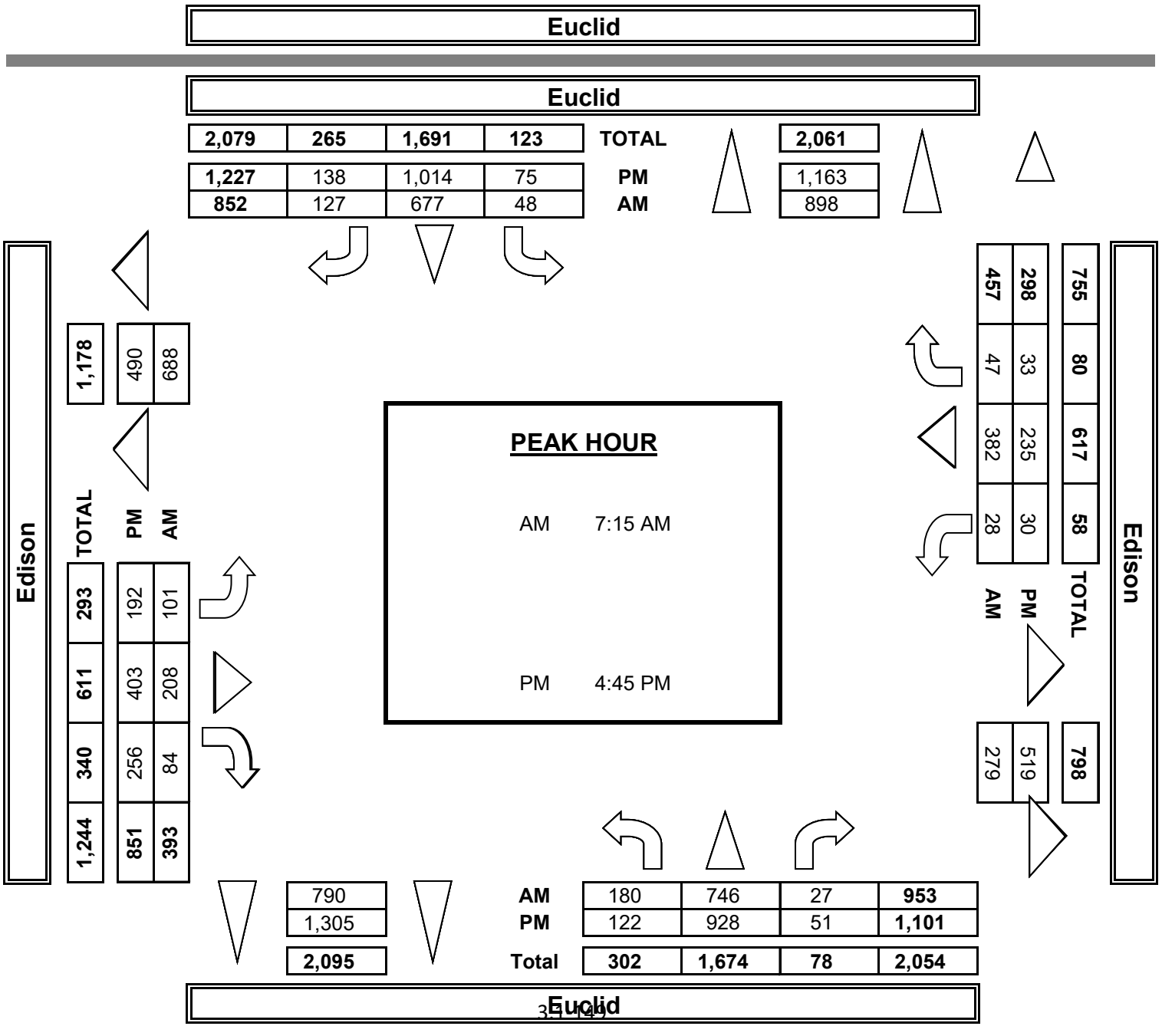
		PEDESTRIAN CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	1	1	0	2
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	1	1
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
	9:00 AM	0	0	0	0	0
	9:15 AM	0	0	0	0	0
	9:30 AM	0	0	0	0	0
	9:45 AM	0	0	0	0	0
	TOTAL	0	1	1	1	3
PM	3:00 PM	0	0	0	0	0
	3:15 PM	0	0	0	0	0
	3:30 PM	0	0	0	0	0
	3:45 PM	0	0	0	0	0
	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	2	0	0	0	2
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	1	1
	TOTAL	2	0	0	1	3

		BICYCLE CROSSINGS				
		ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	1	0	0	1
	8:00 AM	0	1	0	0	1
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	1	0	0	1
	9:00 AM	0	0	0	0	0
	9:15 AM	0	0	0	0	0
	9:30 AM	0	0	0	0	0
	9:45 AM	0	0	0	0	0
	TOTAL	0	3	0	0	3
PM	3:00 PM	0	0	0	0	0
	3:15 PM	0	0	0	0	0
	3:30 PM	0	0	0	0	0
	3:45 PM	0	0	0	0	0
	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	1	0	0	0	1
	4:45 PM	0	0	0	1	1
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
	TOTAL	1	0	0	1	2

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/23/19	LOCATION:	Chino	PROJECT #:	SC2056
WEDNESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	14
	EAST & WEST:	Edison	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Edison			WESTBOUND Edison			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	LANES:	1	2	1	1	2	1	1	1	1	1	1	0	
AM	7:00 AM	36	154	3	4	111	24	13	21	14	7	78	8	473
	7:15 AM	45	150	3	7	153	21	9	37	14	9	90	8	546
	7:30 AM	39	194	8	15	120	23	17	49	19	7	86	8	585
	7:45 AM	39	166	2	4	140	30	18	58	17	0	85	9	568
	8:00 AM	24	125	3	8	123	23	18	35	18	9	83	9	478
	8:15 AM	36	142	5	7	91	21	15	42	15	2	77	10	463
	8:30 AM	50	170	10	9	118	30	11	33	13	2	75	11	532
	8:45 AM	45	139	4	4	128	25	11	31	24	11	85	4	511
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	314	1,240	38	58	984	197	112	306	134	47	659	67	4,156
	APPROACH %	20%	78%	2%	5%	79%	16%	20%	55%	24%	6%	85%	9%	
	APP/DEPART	1,592	/	1,424	1,239	/	1,169	552	/	397	773	/	1,166	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	147	635	16	30	536	97	62	179	68	25	344	34	2,177
	APPROACH %	18%	80%	2%	4%	80%	15%	20%	58%	22%	6%	85%	8%	
	PEAK HR FACTOR		0.828			0.921			0.831			0.942		0.930
	APP/DEPART	798	/	735	667	/	629	309	/	225	403	/	588	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	22	210	16	13	134	29	37	49	45	2	32	13	602
	4:15 PM	25	215	11	9	160	28	34	108	52	5	60	4	711
	4:30 PM	30	191	7	18	177	17	30	83	45	2	75	7	682
	4:45 PM	24	214	11	21	226	21	35	93	66	5	65	6	787
	5:00 PM	25	232	8	12	243	24	41	90	60	5	52	7	799
	5:15 PM	28	187	9	18	235	35	32	96	51	8	56	6	761
	5:30 PM	23	176	12	14	225	30	34	78	63	4	46	13	718
	5:45 PM	19	181	4	15	223	26	42	80	57	4	38	8	697
	VOLUMES	196	1,606	78	120	1,623	210	285	677	439	35	424	64	5,757
	APPROACH %	10%	85%	4%	6%	83%	11%	20%	48%	31%	7%	81%	12%	
	APP/DEPART	1,880	/	1,970	1,953	/	2,106	1,401	/	860	523	/	821	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	96	809	40	55	929	110	142	357	240	22	219	32	3,065
	APPROACH %	10%	85%	4%	5%	84%	10%	19%	48%	32%	8%	80%	12%	
	PEAK HR FACTOR		0.895			0.958			0.952			0.898		0.959
	APP/DEPART	949	/	993	1,104	/	1,195	739	/	452	273	/	425	0

U-TURNS

	NB	SB	EB	WB	TTL
AM	1	0	0	0	1
	0	0	0	0	0
	0	3	0	0	3
	0	0	0	0	0
	0	1	0	0	1
	0	0	0	0	0
	2	0	0	0	2
	1	1	0	0	2
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	4	5	0	0	9
PM	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	1	0	0	0	1
	2	2	0	0	4
	1	3	0	0	4
	0	2	0	0	2
	3	3	0	0	6
	0	4	0	0	4
	1	1	0	0	2
	1	0	0	0	1
	9	15	0	0	24

RTOR

	NRR	SRR	ERR	WRR
AM	0	0	0	0
	1	11	5	1
	0	5	9	0
	4	9	8	0
	1	16	10	1
	1	12	15	1
	1	12	8	1
	3	12	8	3
	2	10	15	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	13	87	78	7
	6	42	42	2
PM	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	1	4	20	4
	0	8	24	0
	0	5	20	3
	1	7	20	2
	2	5	23	0
	1	10	14	1
	3	4	18	3
	1	9	16	1
	9	52	155	14
	7	26	75	6

Euclid

NORTH SIDE

Edison WEST SIDE EAST SIDE **Edison**

SOUTH SIDE

Euclid

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/23/19	LOCATION:	Chino	PROJECT #:	SC2056
WEDNESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	14
	EAST & WEST:	Edison	CONTROL:	SIGNAL

CLASS 2:	NOTES:
2-AXLE WORK VEHICLES/ TRUCKS	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

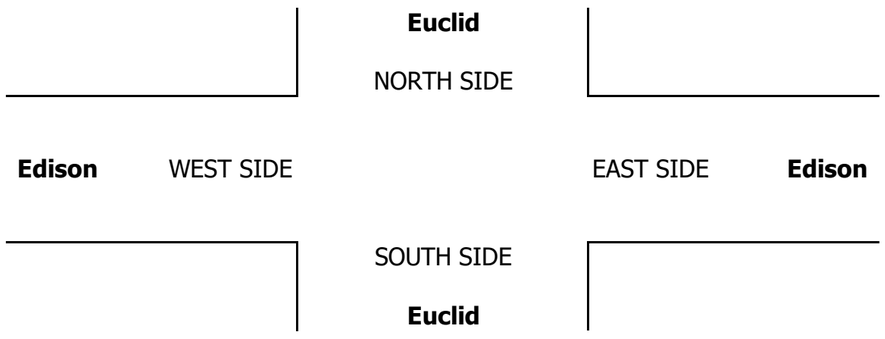
	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Edison			WESTBOUND Edison			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	1	2	1	1	1	1	1	1	0	
7:00 AM	2	12	1	0	24	6	2	2	3	1	3	1	57
7:15 AM	1	9	2	3	22	4	1	4	5	0	7	0	58
7:30 AM	4	9	0	1	16	3	3	2	4	0	4	3	49
7:45 AM	3	14	2	0	31	0	2	3	0	0	5	0	60
8:00 AM	16	21	2	4	25	1	3	5	3	1	8	2	91
8:15 AM	6	10	0	2	14	2	4	3	3	3	6	2	55
8:30 AM	3	24	0	1	32	4	3	1	1	0	8	2	79
8:45 AM	9	19	1	5	26	2	3	2	4	0	6	1	78
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	44	118	8	16	190	22	21	22	23	5	47	11	527
APPROACH %	26%	69%	5%	7%	83%	10%	32%	33%	35%	8%	75%	17%	
APP/DEPART	170	/	155	228	/	218	66	/	41	63	/	113	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	34	74	3	7	97	9	13	11	11	4	28	7	303
APPROACH %	31%	67%	3%	6%	82%	8%	37%	31%	31%	10%	72%	18%	
PEAK HR FACTOR		0.712			0.797			0.795			0.886		0.832
APP/DEPART	111	/	99	118	/	112	35	/	21	39	/	71	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	7	7	2	4	10	3	3	5	2	0	5	0	48
4:15 PM	3	19	0	0	7	4	2	6	2	1	6	4	54
4:30 PM	10	14	1	0	17	2	1	9	1	0	5	0	60
4:45 PM	7	25	0	3	21	3	5	5	0	1	4	0	74
5:00 PM	4	19	0	1	9	0	3	3	0	1	2	0	42
5:15 PM	3	16	0	2	15	1	0	5	0	1	3	1	47
5:30 PM	3	14	2	3	11	1	5	4	3	1	0	0	47
5:45 PM	1	10	0	0	10	0	2	3	4	0	0	0	30
VOLUMES	38	124	5	13	100	14	21	40	12	5	25	5	402
APPROACH %	23%	74%	3%	10%	79%	11%	29%	55%	16%	14%	71%	14%	
APP/DEPART	167	/	151	127	/	117	73	/	57	35	/	77	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	27	65	3	6	55	12	11	25	5	2	20	4	236
APPROACH %	28%	68%	3%	8%	74%	16%	27%	61%	12%	8%	77%	15%	
PEAK HR FACTOR		0.742			0.685			0.932			0.591		0.797
APP/DEPART	95	/	81	74	/	62	41	/	34	26	/	59	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	4	0	0	4
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	5	0	0	5
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	1	1	0
0	1	4	0
0	1	3	1
1	0	0	0
0	0	2	0
0	1	2	0
0	1	0	0
0	1	2	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	6	14	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	1	2	0
0	0	2	0
1	6	5	0
0	5	1	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/23/19	LOCATION:	Chino	PROJECT #:	SC2056
WEDNESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	14
	EAST & WEST:	Edison	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Edison			WESTBOUND Edison			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	1	2	1	1	1	1	1	1	0	
7:00 AM	1	2	0	1	1	4	2	5	0	0	2	1	19
7:15 AM	0	0	0	0	5	0	2	0	0	0	3	0	10
7:30 AM	1	1	1	0	2	4	2	2	0	0	2	0	15
7:45 AM	1	5	0	1	2	2	3	1	0	0	0	0	15
8:00 AM	0	2	0	0	2	0	3	3	1	0	1	1	13
8:15 AM	0	2	0	1	2	0	1	0	0	0	0	1	7
8:30 AM	0	4	0	0	2	2	1	1	1	1	1	0	13
8:45 AM	1	3	0	0	2	2	0	1	1	1	0	0	11
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	4	19	1	3	18	14	14	13	3	2	9	3	103
APPROACH %	17%	79%	4%	9%	51%	40%	47%	43%	10%	14%	64%	21%	
APP/DEPART	24	/	36	35	/	23	30	/	17	14	/	27	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	3	8	1	2	10	10	9	8	0	0	7	1	59
APPROACH %	25%	67%	8%	9%	45%	45%	53%	47%	0%	0%	88%	13%	
PEAK HR FACTOR		0.500			0.917			0.607			0.667		0.776
APP/DEPART	12	/	18	22	/	10	17	/	11	8	/	20	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	3	0	0	0	0	1	2	0	0	0	0	6
4:15 PM	1	2	0	0	0	4	2	2	0	0	1	0	12
4:30 PM	0	0	0	1	0	7	2	1	0	0	1	0	12
4:45 PM	0	1	0	0	2	4	2	4	1	0	0	0	14
5:00 PM	0	3	0	0	2	3	1	2	0	0	0	0	11
5:15 PM	1	0	1	0	2	2	4	1	4	1	0	0	16
5:30 PM	1	5	1	0	0	1	1	0	0	0	0	0	9
5:45 PM	0	0	1	0	1	1	0	2	1	0	0	0	6
VOLUMES	3	14	3	1	7	22	13	14	6	1	2	0	86
APPROACH %	15%	70%	15%	3%	23%	73%	39%	42%	18%	33%	67%	0%	
APP/DEPART	20	/	27	30	/	14	33	/	18	3	/	27	0
BEGIN PEAK HR		4:30 PM											
VOLUMES	1	4	1	1	6	16	9	8	5	1	1	0	53
APPROACH %	17%	67%	17%	4%	26%	70%	41%	36%	23%	50%	50%	0%	
PEAK HR FACTOR		0.500			0.719			0.611			0.500		0.828
APP/DEPART	6	/	13	23	/	12	22	/	10	2	/	18	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/23/19	LOCATION:	Chino	PROJECT #:	SC2056
WEDNESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	14
	EAST & WEST:	Edison	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Edison			WESTBOUND Edison			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	1	2	1	1	1	1	1	1	0	

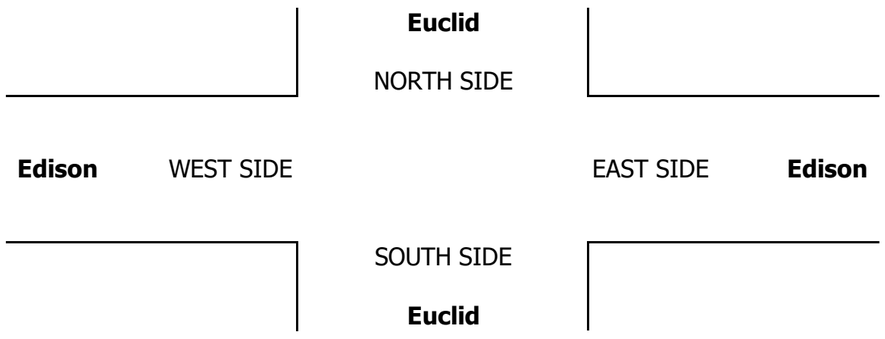
U-TURNS

NB	SB	EB	WB	TTL

RTOR

NRR	SRR	ERR	WRR
0	0	0	0

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS					RTOR			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
AM	7:00 AM	2	8	1	0	9	4	3	3	1	0	4	2	37	0	0	0	0	0	1	0	1	1
	7:15 AM	3	9	0	2	9	4	4	2	0	0	2	2	37	0	0	0	0	0	0	0	0	1
	7:30 AM	2	7	0	2	9	5	7	5	2	0	1	0	40	0	0	0	0	0	0	0	1	0
	7:45 AM	0	17	2	1	8	4	6	0	0	0	1	1	40	0	0	0	0	0	0	0	0	1
	8:00 AM	2	11	1	0	6	2	3	1	1	2	4	3	36	1	0	0	0	1	0	1	1	0
	8:15 AM	0	10	3	1	10	5	6	3	1	2	4	1	46	0	0	0	0	0	0	2	0	1
	8:30 AM	2	11	2	1	12	9	3	3	0	2	9	1	55	0	0	0	0	0	2	1	0	0
	8:45 AM	1	17	1	1	13	15	2	3	3	3	5	3	67	0	0	0	0	0	0	2	1	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	12	90	10	8	76	48	34	20	8	9	30	13	358	1	0	0	0	1	3	6	4	4
	APPROACH %	11%	80%	9%	6%	58%	36%	55%	32%	13%	17%	58%	25%										
	APP/DEPART	112	/	137	132	/	94	62	/	38	52	/	89	0									
	BEGIN PEAK HR		8:00 AM																				
	VOLUMES	4	49	7	3	41	31	14	10	5	9	22	8	204						2	6	2	1
	APPROACH %	7%	80%	11%	4%	55%	41%	48%	34%	17%	23%	56%	21%										
	PEAK HR FACTOR		0.803			0.647			0.725			0.813		0.761									
	APP/DEPART	61	/	71	75	/	56	29	/	20	39	/	57	0									
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	3	6	2	0	4	8	7	3	0	0	1	0	34	0	0	0	0	0	1	3	0	0
	4:15 PM	1	10	3	0	14	8	7	2	4	0	2	0	51	0	0	0	0	0	2	0	1	0
	4:30 PM	1	12	4	1	8	9	4	6	6	0	1	1	53	0	0	0	0	0	1	1	1	0
	4:45 PM	0	5	1	0	9	3	6	7	4	2	3	0	40	0	0	0	0	0	0	0	0	0
	5:00 PM	2	5	3	0	4	2	7	5	1	0	0	0	29	1	0	0	0	1	0	0	0	0
	5:15 PM	1	12	2	1	7	5	5	4	2	0	3	0	42	0	0	0	0	0	0	1	0	0
	5:30 PM	0	12	1	0	2	2	11	6	1	1	0	0	36	0	0	0	0	0	0	0	0	0
	5:45 PM	0	9	2	1	9	6	11	2	0	0	2	0	42	0	0	0	0	0	0	1	0	0
	VOLUMES	8	71	18	3	57	43	58	35	18	3	12	1	327	1	0	0	0	1	4	6	2	0
	APPROACH %	8%	73%	19%	3%	55%	42%	52%	32%	16%	19%	75%	6%										
	APP/DEPART	97	/	130	103	/	79	111	/	56	16	/	62	0									
	BEGIN PEAK HR		4:00 PM																				
	VOLUMES	5	33	10	1	35	28	24	18	14	2	7	1	178						4	4	2	0
	APPROACH %	10%	69%	21%	2%	55%	44%	43%	32%	25%	20%	70%	10%										
	PEAK HR FACTOR		0.706			0.727			0.824			0.500		0.840									
	APP/DEPART	48	/	58	64	/	51	56	/	29	10	/	40	0									



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/23/19	LOCATION:	Chino	PROJECT #:	SC2056
WEDNESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	14
	EAST & WEST:	Edison	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Edison			WESTBOUND Edison			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	1	2	1	1	1	1	1	1	0	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR	7:00 AM												
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR	0.000			0.000			0.000			0.000			0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	1	0	0	0	1	0	0	0	0	0	0	2
APPROACH %	0%	100%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	
APP/DEPART	1	/	1	1	/	0	0	/	0	0	/	1	0
BEGIN PEAK HR	4:45 PM												
VOLUMES	0	1	0	0	0	1	0	0	0	0	0	0	2
APPROACH %	0%	100%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR	0.250			0.250			0.000			0.000			0.250
APP/DEPART	1	/	1	1	/	0	0	/	0	0	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/23/19	LOCATION:	Chino	PROJECT #:	SC2056
WEDNESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	14
	EAST & WEST:	Edison	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Edison			WESTBOUND Edison			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	LANES:	1	2	1	1	2	1	1	1	1	1	1	0	
AM	7:00 AM	0	1	0	0	0	0	0	1	0	0	0	0	2
	7:15 AM	0	1	0	0	1	0	0	1	0	0	0	0	3
	7:30 AM	0	2	0	0	2	1	0	0	0	0	0	0	5
	7:45 AM	0	1	1	0	0	0	0	0	0	0	0	0	2
	8:00 AM	0	2	0	0	1	0	0	0	0	0	0	1	4
	8:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
	8:30 AM	0	0	0	0	1	0	0	0	0	0	1	0	2
	8:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	7	1	0	6	1	1	2	0	0	1	1	20
	APPROACH %	0%	88%	13%	0%	86%	14%	33%	67%	0%	0%	50%	50%	
	APP/DEPART	8	/	9	7	/	6	3	/	3	2	/	2	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	6	1	0	4	1	0	1	0	0	0	1	14
	APPROACH %	0%	86%	14%	0%	80%	20%	0%	100%	0%	0%	0%	100%	
	PEAK HR FACTOR		0.875			0.417			0.250			0.250		0.700
	APP/DEPART	7	/	7	5	/	4	1	/	2	1	/	1	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
	4:15 PM	0	3	0	0	0	0	0	0	0	0	0	0	3
	4:30 PM	0	1	0	0	1	0	0	1	0	0	0	0	3
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	1	0	0	0	0	0	0	0	0	1	0	2
	5:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	7	0	0	2	0	0	1	0	0	1	0	11
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	7	/	7	2	/	2	1	/	1	1	/	1	0
	BEGIN PEAK HR		3:45 PM											
	VOLUMES	0	6	0	0	1	0	0	1	0	0	0	0	8
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.500			0.250			0.250			0.000		0.667
	APP/DEPART	6	/	6	1	/	1	1	/	1	0	/	0	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Jan 22, 19

LOCATION: Chino
NORTH & SOUTH: Euclid
EAST & WEST: Eucalyptus

PROJECT #: SC2056
LOCATION #: 15
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W E ►
S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Eucalyptus			WESTBOUND Eucalyptus			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	31	185	2	7	166	6	8	3	20	5	35	4	472
	7:15 AM	42	246	1	4	212	13	12	6	28	10	33	7	614
	7:30 AM	43	257	2	2	195	4	20	8	36	5	34	9	615
	7:45 AM	43	188	4	1	201	6	19	7	36	7	39	6	557
	8:00 AM	35	246	2	10	195	12	15	4	43	5	44	3	614
	8:15 AM	35	231	0	7	200	3	12	4	29	5	19	7	552
	8:30 AM	34	265	1	11	163	7	10	5	24	3	17	10	550
	8:45 AM	45	245	3	9	151	4	17	4	24	5	20	4	531
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	308	1,863	15	51	1,483	55	113	41	240	45	241	50	4,505
	APPROACH %	14%	85%	1%	3%	93%	3%	29%	10%	61%	13%	72%	15%	
	APP/DEPART	2,186	/	2,039	1,589	/	1,770	394	/	94	336	/	602	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	163	937	9	17	803	35	66	25	143	27	150	25	2,400
	APPROACH %	15%	84%	1%	2%	94%	4%	28%	11%	61%	13%	74%	12%	
	PEAK HR FACTOR		0.918			0.933			0.914			0.971		0.976
	APP/DEPART	1,109	/	1,032	855	/	974	234	/	47	202	/	347	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	20	238	3	7	208	7	7	24	36	0	7	2	559
	4:15 PM	19	243	2	9	188	11	7	24	41	2	4	2	552
	4:30 PM	20	282	3	8	239	10	4	35	49	0	5	3	658
	4:45 PM	21	272	2	12	240	13	5	32	55	1	5	4	662
	5:00 PM	24	218	6	4	256	18	6	40	44	1	4	1	622
	5:15 PM	24	260	3	11	341	13	13	34	52	2	5	2	760
	5:30 PM	32	190	4	9	296	17	9	48	48	3	6	0	662
	5:45 PM	47	176	15	7	209	13	15	21	43	1	12	0	559
	VOLUMES	207	1,879	38	67	1,977	102	66	258	368	10	48	14	5,034
	APPROACH %	10%	88%	2%	3%	92%	5%	10%	37%	53%	14%	67%	19%	
	APP/DEPART	2,124	/	1,973	2,146	/	2,357	692	/	348	72	/	356	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	101	940	15	36	1,133	61	33	154	199	7	20	7	2,706
	APPROACH %	10%	89%	1%	3%	92%	5%	9%	40%	52%	21%	59%	21%	
	PEAK HR FACTOR		0.895			0.842			0.919			0.850		0.890
	APP/DEPART	1,056	/	990	1,230	/	1,339	386	/	195	34	/	182	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	
0	4	0	0	4
0	0	0	0	0
1	1	0	0	2
0	1	0	0	1
0	2	0	0	2
0	2	0	0	2
1	3	0	0	4
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
2	13	0	0	15
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	3	0	0	3
0	2	0	0	2
0	1	0	0	1
0	1	0	0	1
0	6	0	0	6
2	0	1	0	3
2	15	1	0	18

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	18	1
0	5	15	1
0	1	22	5
1	2	19	1
0	3	28	1
0	0	22	4
0	0	14	7
1	0	17	4
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
2	11	155	24
1	11	84	8
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	21	1
1	3	32	1
0	1	34	1
1	1	33	1
0	4	22	1
0	3	28	1
0	3	20	0
4	1	22	0
7	16	212	6
1	11	103	3

Euclid

NORTH SIDE

Eucalyptus WEST SIDE EAST SIDE **Eucalyptus**

SOUTH SIDE

Euclid

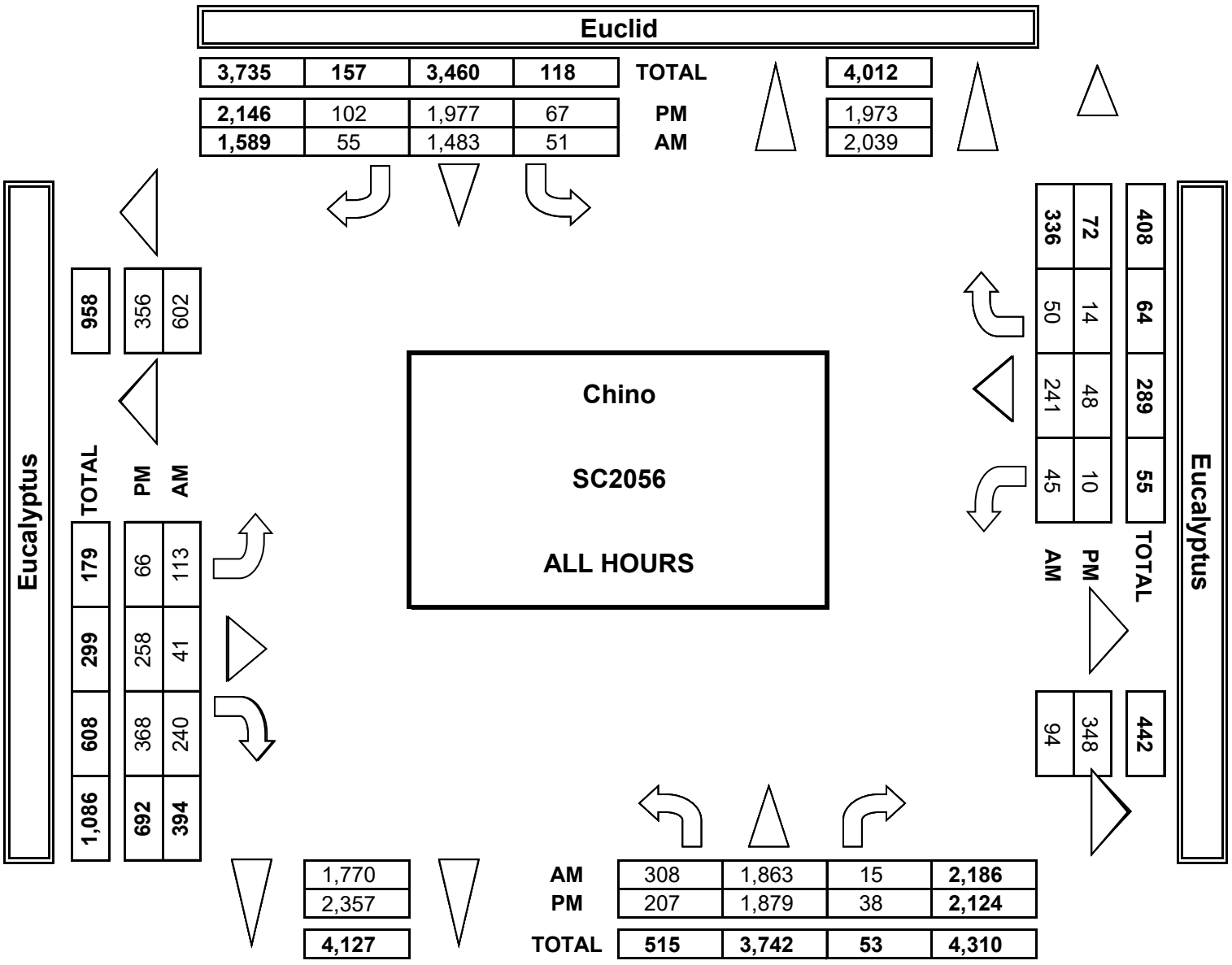
		ALL PED AND BIKE				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
AM	7:00 AM	0	1	0	0	1
	7:15 AM	0	0	0	0	0
	7:30 AM	0	1	0	0	1
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	1	0	0	1
	8:45 AM	0	0	0	0	0
	9:00 AM	0	0	0	0	0
	9:15 AM	0	0	0	0	0
	9:30 AM	0	0	0	0	0
	9:45 AM	0	0	0	0	0
	TOTAL	0	3	0	0	3
PM	3:00 PM	0	0	0	0	0
	3:15 PM	0	0	0	0	0
	3:30 PM	0	0	0	0	0
	3:45 PM	0	0	0	0	0
	4:00 PM	1	1	0	0	2
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	1	0	0	1
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	2	0	2
	TOTAL	1	2	2	0	5

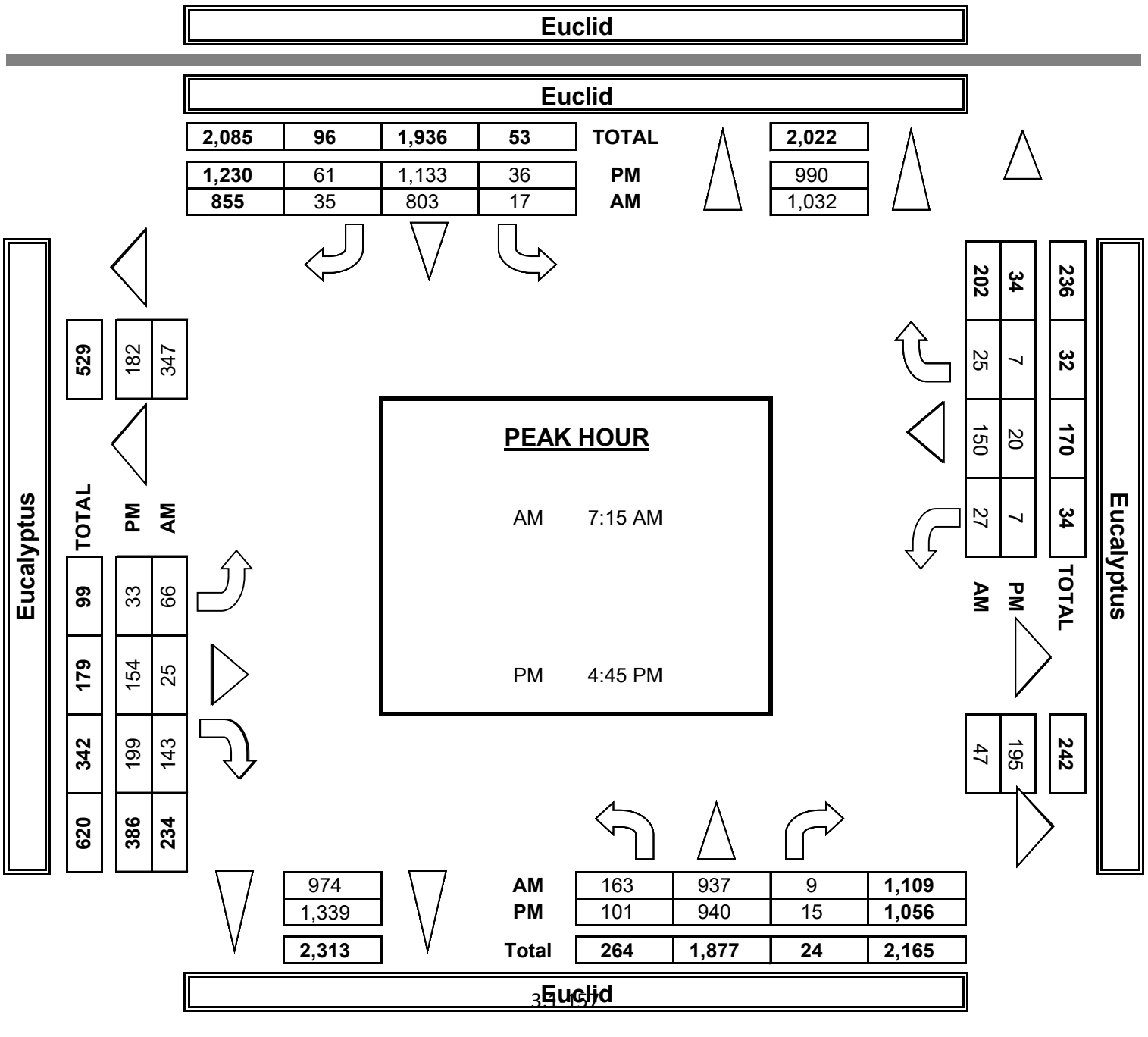
		PEDESTRIAN CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	1	0	0	1
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
	9:00 AM	0	0	0	0	0
	9:15 AM	0	0	0	0	0
	9:30 AM	0	0	0	0	0
	9:45 AM	0	0	0	0	0
	TOTAL	0	1	0	0	1
PM	3:00 PM	0	0	0	0	0
	3:15 PM	0	0	0	0	0
	3:30 PM	0	0	0	0	0
	3:45 PM	0	0	0	0	0
	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	2	0	2
	TOTAL	0	0	2	0	2

		BICYCLE CROSSINGS				
		ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	1	0	0	1
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	1	0	0	1
	8:45 AM	0	0	0	0	0
	9:00 AM	0	0	0	0	0
	9:15 AM	0	0	0	0	0
	9:30 AM	0	0	0	0	0
	9:45 AM	0	0	0	0	0
	TOTAL	0	2	0	0	2
PM	3:00 PM	0	0	0	0	0
	3:15 PM	0	0	0	0	0
	3:30 PM	0	0	0	0	0
	3:45 PM	0	0	0	0	0
	4:00 PM	1	1	0	0	2
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	1	0	0	1
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
	TOTAL	1	2	0	0	3

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	15
	EAST & WEST:	Eucalyptus	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ▼ S ◄ W E ►

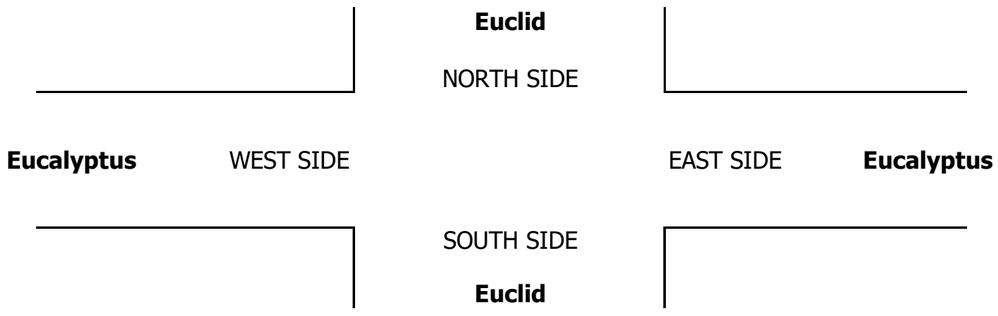
	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Eucalyptus			WESTBOUND Eucalyptus			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	1	2	1	1	1	1	1	1	0	
7:00 AM	30	163	2	6	139	5	7	3	19	5	33	3	415
7:15 AM	37	218	1	2	179	10	12	6	23	8	33	4	533
7:30 AM	41	234	2	2	164	2	19	7	35	5	34	6	551
7:45 AM	43	167	2	1	152	5	19	7	35	7	38	4	480
8:00 AM	33	206	2	9	145	10	14	4	37	3	41	1	505
8:15 AM	33	199	0	7	140	3	11	4	28	4	17	6	452
8:30 AM	33	203	1	7	143	5	10	5	23	2	17	9	458
8:45 AM	44	193	3	6	110	2	17	3	20	5	20	3	426
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	294	1,583	13	40	1,172	42	109	39	220	39	233	36	3,820
APPROACH %	16%	84%	1%	3%	93%	3%	30%	11%	60%	13%	76%	12%	
APP/DEPART	1,890	/	1,740	1,254	/	1,431	368	/	80	308	/	569	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	154	825	7	10	640	27	64	24	130	23	146	15	2,069
APPROACH %	16%	84%	1%	1%	94%	4%	29%	11%	60%	13%	79%	8%	
PEAK HR FACTOR		0.890			0.891			0.893			0.939		0.939
APP/DEPART	986	/	908	681	/	793	218	/	41	184	/	327	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	19	211	2	6	175	7	6	24	35	0	7	2	494
4:15 PM	17	190	2	6	163	11	7	24	40	2	4	2	468
4:30 PM	18	243	2	8	207	10	4	35	46	0	5	3	581
4:45 PM	21	234	2	9	218	12	4	32	52	1	5	4	594
5:00 PM	24	181	6	4	228	18	5	39	43	1	4	1	554
5:15 PM	24	220	3	11	319	12	12	32	52	1	4	1	691
5:30 PM	31	160	3	6	276	16	9	47	46	3	6	0	603
5:45 PM	45	160	14	6	191	13	11	21	42	1	11	0	515
VOLUMES	199	1,599	34	56	1,777	99	58	254	356	9	46	13	4,500
APPROACH %	11%	87%	2%	3%	92%	5%	9%	38%	53%	13%	68%	19%	
APP/DEPART	1,832	/	1,679	1,932	/	2,143	668	/	334	68	/	344	0
BEGIN PEAK HR		4:45 PM											
VOLUMES	100	795	14	24	1,041	58	30	150	193	6	19	6	2,442
APPROACH %	11%	87%	2%	2%	92%	5%	8%	40%	52%	19%	61%	19%	
PEAK HR FACTOR		0.884			0.825			0.914			0.775		0.884
APP/DEPART	909	/	837	1,129	/	1,240	373	/	188	31	/	177	0

U-TURNS

NB	SB	EB	WB	TTL
0	4	0	0	4
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
0	2	0	0	2
0	2	0	0	2
0	2	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	12	0	0	12
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	2	0	0	2
0	2	0	0	2
0	1	0	0	1
0	1	0	0	1
0	1	0	0	1
0	3	0	0	3
1	0	1	0	2
1	10	1	0	12

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	17	1
0	5	12	1
0	0	21	3
0	2	19	1
0	3	24	0
0	0	21	4
0	0	14	6
1	0	13	3
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	10	141	19
0	10	76	5
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	21	1
1	3	31	1
0	1	32	1
1	1	31	1
0	4	21	1
0	2	28	1
0	3	19	0
4	1	21	0
7	15	204	6
1	10	99	3



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	15
	EAST & WEST:	Eucalyptus	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

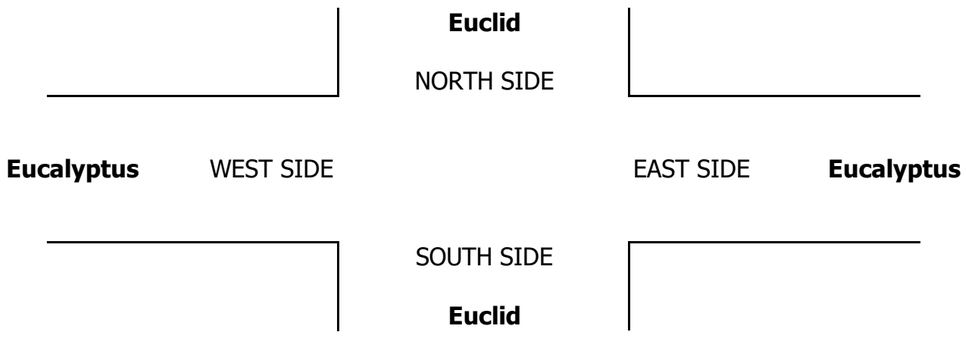
	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Eucalyptus			WESTBOUND Eucalyptus			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	1	2	1	1	1	1	1	1	0	
7:00 AM	0	13	0	0	17	1	0	0	1	0	2	0	34
7:15 AM	4	14	0	1	18	2	0	0	2	1	0	0	42
7:30 AM	1	9	0	0	19	1	1	0	1	0	0	0	32
7:45 AM	0	8	0	0	33	0	0	0	1	0	1	1	44
8:00 AM	2	25	0	0	34	1	0	0	5	1	1	1	70
8:15 AM	1	18	0	0	41	0	0	0	1	0	2	0	63
8:30 AM	1	32	0	1	10	1	0	0	1	0	0	0	46
8:45 AM	0	31	0	1	22	1	0	1	3	0	0	0	59
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	9	150	0	3	194	7	1	1	15	2	6	2	390
APPROACH %	6%	94%	0%	1%	95%	3%	6%	6%	88%	20%	60%	20%	
APP/DEPART	159	/	153	204	/	212	17	/	4	10	/	21	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	3	106	0	2	107	3	0	1	10	1	3	1	238
APPROACH %	3%	96%	0%	2%	96%	3%	0%	9%	91%	20%	60%	20%	
PEAK HR FACTOR		0.833			0.683			0.550			0.417		0.850
APP/DEPART	110	/	107	112	/	119	11	/	3	5	/	9	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	1	17	0	0	16	0	0	0	1	0	0	0	35
4:15 PM	2	33	0	0	14	0	0	0	0	0	0	0	49
4:30 PM	2	25	1	0	15	0	0	0	2	0	0	0	45
4:45 PM	0	30	0	0	12	0	0	0	3	0	0	0	45
5:00 PM	0	18	0	0	15	0	0	1	1	0	0	0	35
5:15 PM	0	25	0	0	10	1	0	1	0	1	1	0	39
5:30 PM	1	19	0	0	11	0	0	1	2	0	0	0	34
5:45 PM	1	8	1	1	10	0	4	0	1	0	1	0	27
VOLUMES	7	175	2	1	103	1	4	3	10	1	2	0	309
APPROACH %	4%	95%	1%	1%	98%	1%	24%	18%	59%	33%	67%	0%	
APP/DEPART	184	/	179	105	/	114	17	/	6	3	/	10	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	4	106	1	0	56	0	0	1	6	0	0	0	174
APPROACH %	4%	95%	1%	0%	100%	0%	0%	14%	86%	0%	0%	0%	
PEAK HR FACTOR		0.793			0.875			0.583			0.000		0.888
APP/DEPART	111	/	106	56	/	62	7	/	2	0	/	4	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	1	0
0	0	2	0
0	1	1	0
0	0	0	0
0	0	4	1
0	0	1	0
0	0	0	0
0	0	3	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	1	12	1
0	0	8	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	2	0
0	0	1	0
0	1	0	0
0	0	1	0
0	0	1	0
0	1	6	0
0	0	4	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	15
	EAST & WEST:	Eucalyptus	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Eucalyptus			WESTBOUND Eucalyptus			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	1	2	1	1	1	1	1	1	0	
7:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	2
7:15 AM	0	4	0	0	4	0	0	0	0	0	0	0	8
7:30 AM	0	3	0	0	5	0	0	0	0	0	0	1	9
7:45 AM	0	3	1	0	4	0	0	0	0	0	0	0	8
8:00 AM	0	1	0	0	2	1	0	0	0	0	0	0	4
8:15 AM	0	2	0	0	6	0	1	0	0	0	0	0	9
8:30 AM	0	7	0	1	2	0	0	0	0	0	0	0	10
8:45 AM	0	4	0	0	3	0	0	0	0	0	0	0	7
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	26	1	1	26	1	1	0	0	0	0	1	57
APPROACH %	0%	96%	4%	4%	93%	4%	100%	0%	0%	0%	0%	100%	
APP/DEPART	27	/	28	28	/	26	1	/	2	1	/	1	0
BEGIN PEAK HR		7:45 AM											
VOLUMES	0	13	1	1	14	1	1	0	0	0	0	0	31
APPROACH %	0%	93%	7%	6%	88%	6%	100%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.500			0.667			0.250			0.000		0.775
APP/DEPART	14	/	14	16	/	14	1	/	2	0	/	1	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
4:15 PM	0	3	0	1	3	0	0	0	0	0	0	0	7
4:30 PM	0	2	0	0	3	0	0	0	0	0	0	0	5
4:45 PM	0	0	0	2	1	0	0	0	0	0	0	0	3
5:00 PM	0	5	0	0	3	0	0	0	0	0	0	0	8
5:15 PM	0	4	0	0	2	0	0	1	0	0	0	0	7
5:30 PM	0	3	0	2	0	0	0	0	0	0	0	0	5
5:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
VOLUMES	0	19	0	5	14	0	0	1	0	0	0	0	39
APPROACH %	0%	100%	0%	26%	74%	0%	0%	100%	0%	0%	0%	0%	
APP/DEPART	19	/	22	19	/	14	1	/	3	0	/	0	0
BEGIN PEAK HR		4:15 PM											
VOLUMES	0	12	0	1	6	0	0	1	0	0	0	0	23
APPROACH %	0%	100%	0%	10%	60%	0%	0%	100%	0%	0%	0%	0%	
PEAK HR FACTOR		0.600			0.625			0.250			0.000		0.719
APP/DEPART	12	/	15	10	/	6	1	/	2	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	2	0	0	2
0	0	0	0	0
0	3	0	0	3

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	15
	EAST & WEST:	Eucalyptus	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Eucalyptus			WESTBOUND Eucalyptus			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	1	2	1	1	1	1	1	1	0	

U-TURNS

NB	SB	EB	WB	TTL

RTOR

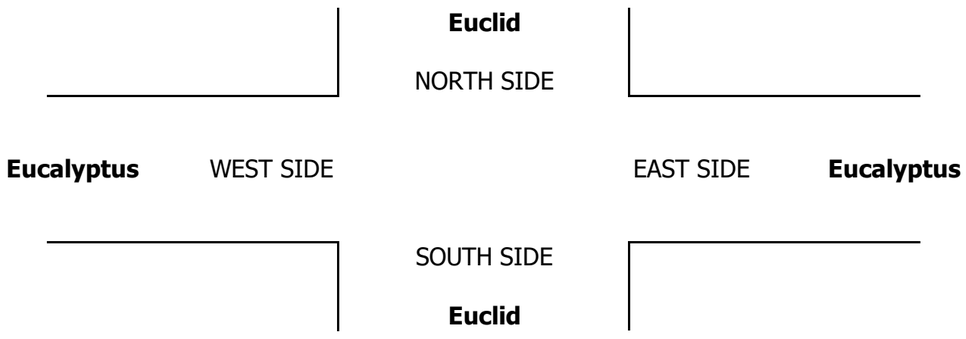
NRR	SRR	ERR	WRR
0	0	0	0

AM

7:00 AM	0	7	0	1	10	0	0	0	0	0	0	1	19	0 0 0 0 0	0 0 0 0
7:15 AM	0	9	0	1	10	1	0	0	1	1	0	3	26	0 0 0 0 0	0 0 1 0
7:30 AM	1	10	0	0	6	0	0	0	0	0	0	1	18	1 0 0 0 1	0 0 0 0
7:45 AM	0	9	1	0	12	0	0	0	0	0	0	0	22	0 0 0 0 0	1 0 0 0
8:00 AM	0	14	0	1	14	0	0	0	0	1	0	1	31	0 0 0 0 0	0 0 0 0
8:15 AM	0	10	0	0	13	0	0	0	0	1	0	1	25	0 0 0 0 0	0 0 0 0
8:30 AM	0	23	0	2	8	0	0	0	0	1	0	1	35	0 1 0 0 1	0 0 0 1
8:45 AM	1	17	0	1	16	1	0	0	0	0	0	1	37	0 0 0 0 0	0 0 0 1
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0 0 0 0	0 0 0 0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0 0 0 0	0 0 0 0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0 0 0 0	0 0 0 0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0 0 0 0	0 0 0 0
VOLUMES	2	99	1	6	89	2	0	0	1	4	0	9	213	1 1 0 0 2	1 0 1 2
APPROACH %	2%	97%	1%	6%	92%	2%	0%	0%	100%	31%	0%	69%			
APP/DEPART	102	/	109	97	/	95	1	/	6	13	/	3	0		
BEGIN PEAK HR		8:00 AM													
VOLUMES	1	64	0	3	51	1	0	0	0	3	0	4	128		0 0 0 2
APPROACH %	2%	98%	0%	5%	91%	2%	0%	0%	0%	43%	0%	57%			
PEAK HR FACTOR		0.707			0.778			0.000			0.875		0.865		
APP/DEPART	65	/	69	56	/	54	0	/	3	7	/	2	0		

PM

03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0 0 0 0	0 0 0 0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0 0 0 0	0 0 0 0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0 0 0 0	0 0 0 0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0 0 0 0	0 0 0 0
4:00 PM	0	8	1	1	15	0	0	0	0	0	0	0	25	0 0 0 0 0	0 0 0 0
4:15 PM	0	15	0	2	8	0	0	0	1	0	0	0	26	0 1 0 0 1	0 0 1 0
4:30 PM	0	11	0	0	14	0	0	0	1	0	0	0	26	0 0 0 0 0	0 0 1 0
4:45 PM	0	8	0	1	9	0	1	0	0	0	0	0	19	0 0 0 0 0	0 0 0 0
5:00 PM	0	13	0	0	10	0	1	0	0	0	0	0	24	0 0 0 0 0	0 0 0 0
5:15 PM	0	10	0	0	10	0	0	0	0	0	0	1	21	0 0 0 0 0	0 0 0 0
5:30 PM	0	8	1	1	9	0	0	0	0	0	0	0	19	0 1 0 0 1	0 0 0 0
5:45 PM	1	6	0	0	7	0	0	0	0	0	0	0	14	1 0 0 0 1	0 0 0 0
VOLUMES	1	79	2	5	82	0	2	0	2	0	0	1	174	1 2 0 0 3	0 0 2 0
APPROACH %	1%	96%	2%	6%	94%	0%	50%	0%	50%	0%	0%	100%			
APP/DEPART	82	/	84	87	/	85	4	/	5	1	/	0	0		
BEGIN PEAK HR		4:00 PM													
VOLUMES	0	42	1	3	46	0	1	0	2	0	0	0	96		0 0 2 0
APPROACH %	0%	98%	2%	6%	92%	0%	33%	0%	67%	0%	0%	0%			
PEAK HR FACTOR		0.717			0.781			0.750			0.000		0.923		
APP/DEPART	43	/	44	50	/	48	3	/	4	0	/	0	0		



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	15
	EAST & WEST:	Eucalyptus	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

AM ▲ N
PM ◄ W E ►
MD S ▼
OTHER
OTHER

	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Eucalyptus			WESTBOUND Eucalyptus			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	1	2	1	1	1	1	1	1	0	

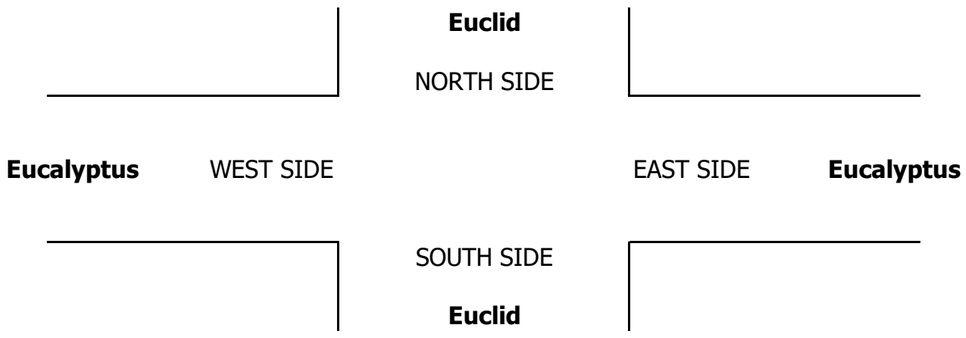
U-TURNS

NB	SB	EB	WB	TTL

RTOR

NRR	SRR	ERR	WRR
0	0	0	0

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS					RTOR			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0									
	BEGIN PEAK HR	7:00 AM																					
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0						0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
	PEAK HR FACTOR	0.000			0.000			0.000			0.000			0.000									
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0									
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	VOLUMES	0	1	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%										
	APP/DEPART	1	/	1	1	/	1	0	/	0	0	/	0	0									
	BEGIN PEAK HR	5:00 PM																					
	VOLUMES	0	1	0	0	1	0	0	0	0	0	0	0	2						0	0	0	0
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%										
	PEAK HR FACTOR	0.250			0.250			0.000			0.000			0.500									
	APP/DEPART	1	/	1	1	/	1	0	/	0	0	/	0	0									



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	15
	EAST & WEST:	Eucalyptus	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Eucalyptus			WESTBOUND Eucalyptus			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	LANES:	1	2	1	1	2	1	1	1	1	1	1	0	
AM	7:00 AM	1	0	0	0	0	0	1	0	0	0	0	0	2
	7:15 AM	1	1	0	0	1	0	0	0	2	0	0	0	5
	7:30 AM	0	1	0	0	1	1	0	1	0	0	0	1	5
	7:45 AM	0	1	0	0	0	1	0	0	0	0	0	1	3
	8:00 AM	0	0	0	0	0	0	1	0	1	0	2	0	4
	8:15 AM	1	2	0	0	0	0	0	0	0	0	0	0	3
	8:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	1
	8:45 AM	0	0	0	1	0	0	0	0	1	0	0	0	2
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	3	5	0	1	2	3	2	1	4	0	2	2	25
	APPROACH %	38%	63%	0%	17%	33%	50%	29%	14%	57%	0%	50%	50%	
	APP/DEPART	8	/	9	6	/	6	7	/	2	4	/	8	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	1	3	0	0	2	2	1	1	3	0	2	2	17
	APPROACH %	25%	75%	0%	0%	50%	50%	20%	20%	60%	0%	50%	50%	
	PEAK HR FACTOR		0.500			0.500			0.625			0.500		0.850
	APP/DEPART	4	/	6	4	/	5	5	/	1	4	/	5	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	2	0	0	0	0	1	0	0	0	0	0	3
	4:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
	4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	4:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	1	0	0	0	0	1	0	0	0	0	0	2
	5:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	6	0	0	0	2	2	0	0	0	0	0	10
	APPROACH %	0%	100%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	
	APP/DEPART	6	/	8	2	/	0	2	/	0	0	/	2	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	5	0	0	0	1	1	0	0	0	0	0	7
	APPROACH %	0%	100%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.625			0.250			0.250			0.000		0.583
	APP/DEPART	5	/	6	1	/	0	1	/	0	0	/	1	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Jan 22, 19

LOCATION: Chino
NORTH & SOUTH: Euclid
EAST & WEST: Facility

PROJECT #: SC2056
LOCATION #: 16
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W E ►
S ▼

☑ Add U-Turns to Left Turns

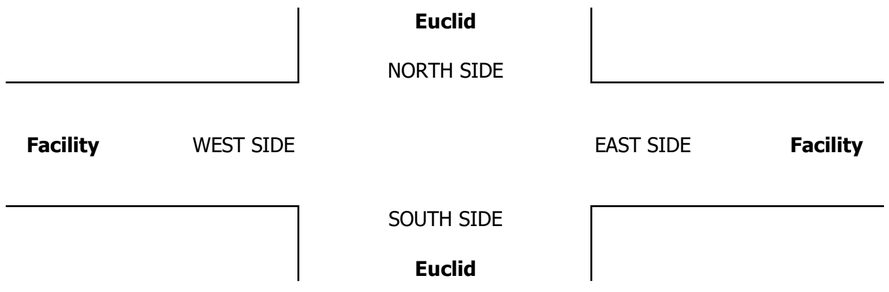
		NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Facility			WESTBOUND Facility			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	4	171	17	15	154	22	0	0	2	52	21	47	505
	7:15 AM	3	242	30	20	222	9	0	2	2	51	10	47	638
	7:30 AM	3	236	42	26	203	8	1	1	3	40	14	65	642
	7:45 AM	1	191	23	26	205	13	2	2	2	45	12	50	572
	8:00 AM	3	240	30	32	203	8	0	1	4	57	11	38	627
	8:15 AM	2	216	23	20	211	3	1	3	0	47	0	49	575
	8:30 AM	3	232	26	27	161	3	2	0	2	40	12	66	574
	8:45 AM	6	243	31	27	151	2	0	2	0	36	3	49	550
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	25	1,771	222	193	1,510	68	6	11	15	368	83	411	4,683
	APPROACH %	1%	88%	11%	11%	85%	4%	19%	34%	47%	43%	10%	48%	
	APP/DEPART	2,018	/	2,189	1,771	/	1,893	32	/	425	862	/	176	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	10	909	125	104	833	38	3	6	11	193	47	200	2,479
	APPROACH %	1%	87%	12%	11%	85%	4%	15%	30%	55%	44%	11%	45%	
	PEAK HR FACTOR		0.929			0.971			0.833			0.924		0.965
	APP/DEPART	1,044	/	1,112	975	/	1,037	20	/	235	440	/	95	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	230	55	29	215	0	6	12	4	18	0	23	592
	4:15 PM	0	236	48	37	198	2	1	8	4	26	1	27	588
	4:30 PM	0	273	54	41	246	1	1	9	3	44	0	31	703
	4:45 PM	0	271	49	67	229	0	5	15	3	41	2	19	701
	5:00 PM	1	214	49	43	258	0	4	5	2	32	0	32	640
	5:15 PM	1	252	45	75	320	0	1	0	2	50	0	34	780
	5:30 PM	1	204	46	58	287	2	0	0	2	47	0	22	669
	5:45 PM	0	207	28	55	200	0	1	0	0	37	0	30	558
	VOLUMES	3	1,887	374	405	1,953	5	19	49	20	295	3	218	5,231
	APPROACH %	0%	83%	17%	17%	83%	0%	22%	56%	23%	57%	1%	42%	
	APP/DEPART	2,264	/	2,124	2,363	/	2,270	88	/	828	516	/	9	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	2	1,010	197	226	1,053	1	11	29	10	167	2	116	2,824
	APPROACH %	0%	84%	16%	18%	82%	0%	22%	58%	20%	59%	1%	41%	
	PEAK HR FACTOR		0.924			0.810			0.543			0.848		0.905
	APP/DEPART	1,209	/	1,137	1,280	/	1,231	50	/	452	285	/	4	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
1	0	0	0	1
0	0	0	0	0
2	0	0	0	2

RTOR

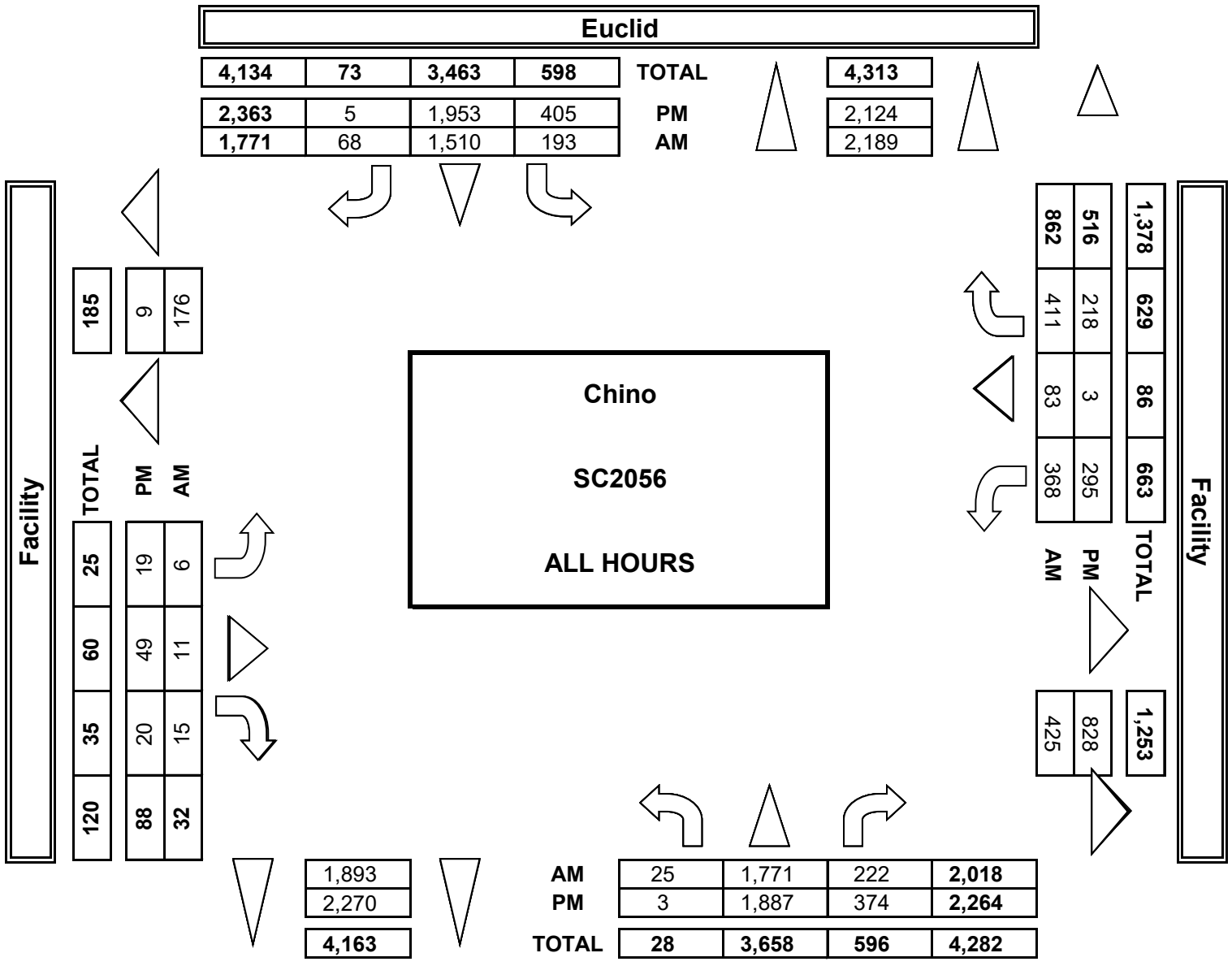
NRR	SRR	ERR	WRR
0	0	0	0
8	13	1	13
6	2	1	5
17	1	0	4
5	8	0	7
14	3	0	10
12	0	0	6
14	1	0	20
14	1	0	13
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
90	29	2	78
42	14	1	26
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
16	0	0	6
19	2	0	5
20	1	0	4
4	0	1	1
20	0	0	2
15	0	0	2
10	0	1	0
9	0	0	4
113	3	2	24
59	1	1	9

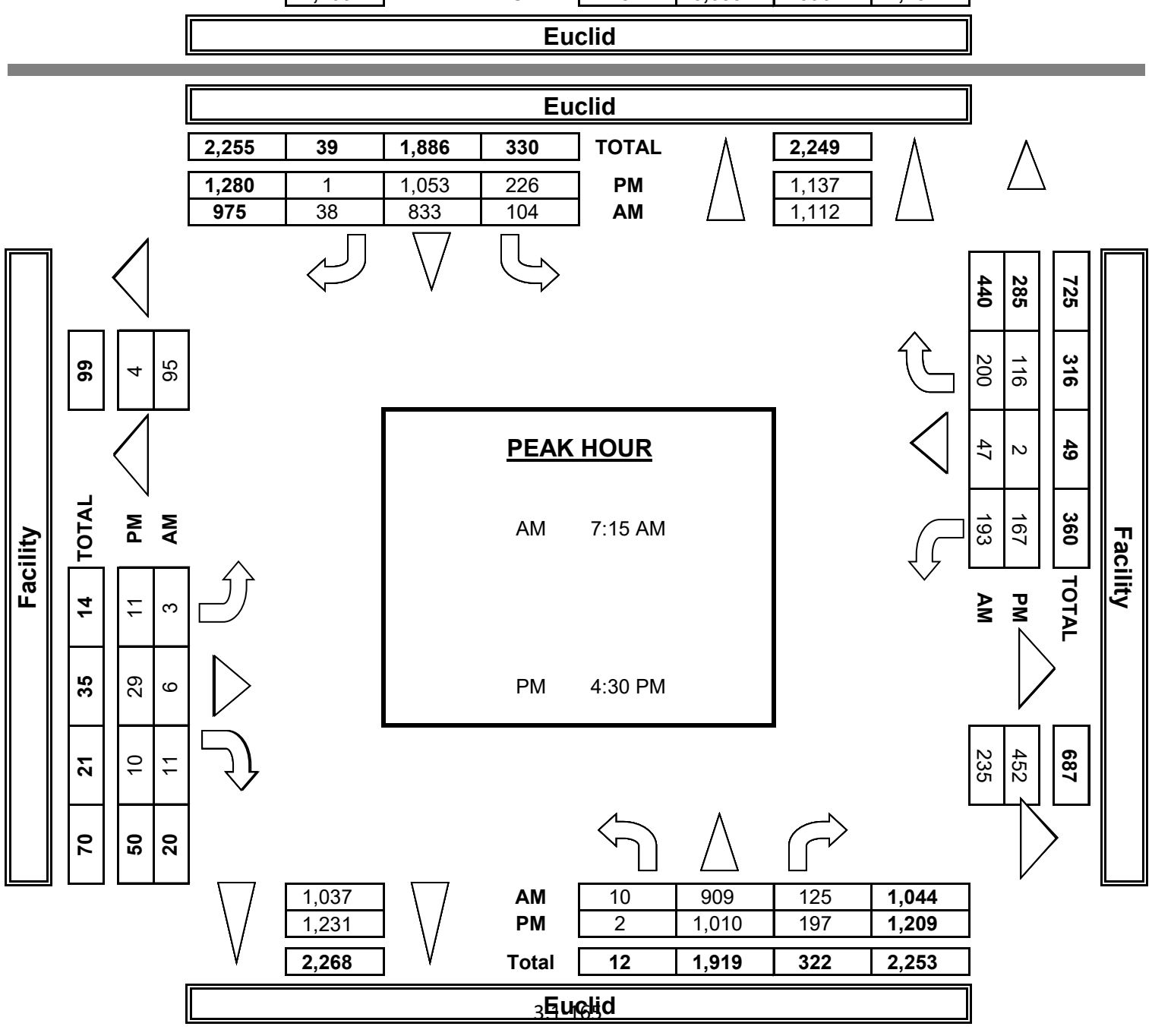


		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	2	0	0	2	0	1	0	0	1	0	1	0	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	4	0	0	4	0	1	0	0	1	0	3	0	0	3
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	16
	EAST & WEST:	Facility	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Facility			WESTBOUND Facility			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	1	2	0	0	1	0	0	1	0	
7:00 AM	2	153	15	10	131	21	0	0	1	45	21	42	441
7:15 AM	3	213	26	17	185	9	0	2	1	39	10	43	548
7:30 AM	3	219	36	23	174	7	1	1	0	34	14	57	569
7:45 AM	1	172	21	21	161	13	1	1	0	40	11	47	489
8:00 AM	3	203	25	25	152	8	0	0	3	44	11	33	507
8:15 AM	2	186	21	13	157	2	0	3	0	43	0	46	473
8:30 AM	3	182	23	20	145	3	0	0	1	36	9	55	477
8:45 AM	2	194	28	20	113	2	0	2	0	30	3	45	439
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	19	1,522	195	149	1,218	65	2	9	6	311	79	368	3,943
APPROACH %	1%	88%	11%	10%	85%	5%	12%	53%	35%	41%	10%	49%	
APP/DEPART	1,736	/	1,893	1,432	/	1,535	17	/	352	758	/	163	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	10	807	108	86	672	37	2	4	4	157	46	180	2,113
APPROACH %	1%	87%	12%	11%	85%	5%	20%	40%	40%	41%	12%	47%	
PEAK HR FACTOR		0.896			0.942			0.833			0.912		0.928
APP/DEPART	925	/	989	795	/	833	10	/	198	383	/	93	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	202	48	28	182	0	6	12	4	16	0	22	520
4:15 PM	0	187	39	32	174	2	1	8	4	22	1	21	491
4:30 PM	0	236	48	38	216	1	1	9	3	42	0	26	620
4:45 PM	0	233	42	63	209	0	5	15	3	38	2	19	629
5:00 PM	1	183	44	36	236	0	4	5	2	29	0	26	566
5:15 PM	0	216	39	71	299	0	1	0	0	45	0	30	701
5:30 PM	0	175	38	56	268	2	0	0	2	43	0	19	603
5:45 PM	0	190	27	53	183	0	1	0	0	33	0	28	515
VOLUMES	1	1,622	325	377	1,767	5	19	49	18	268	3	191	4,645
APPROACH %	0%	83%	17%	18%	82%	0%	22%	57%	21%	58%	1%	41%	
APP/DEPART	1,948	/	1,832	2,149	/	2,053	86	/	751	462	/	9	0
BEGIN PEAK HR		4:30 PM											
VOLUMES	1	868	173	208	960	1	11	29	8	154	2	101	2,516
APPROACH %	0%	83%	17%	18%	82%	0%	23%	60%	17%	60%	1%	39%	
PEAK HR FACTOR		0.917			0.790			0.522			0.857		0.897
APP/DEPART	1,042	/	980	1,169	/	1,122	48	/	410	257	/	4	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	16
	EAST & WEST:	Facility	CONTROL:	SIGNAL

CLASS 2:	NOTES:
2-AXLE WORK VEHICLES/ TRUCKS	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Facility			WESTBOUND Facility			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	1	2	0	0	1	0	0	1	0	
7:00 AM	2	11	1	2	16	0	0	0	1	2	0	2	37
7:15 AM	0	17	1	1	20	0	0	0	1	6	0	1	47
7:30 AM	0	7	5	2	17	1	0	0	3	4	0	3	42
7:45 AM	0	5	1	3	31	0	1	0	1	3	1	2	48
8:00 AM	0	26	4	5	35	0	0	0	0	12	0	1	83
8:15 AM	0	17	1	4	37	1	0	0	0	1	0	2	63
8:30 AM	0	26	2	2	10	0	2	0	1	0	1	5	49
8:45 AM	2	29	0	2	23	0	0	0	0	6	0	2	64
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	4	138	15	21	189	2	3	0	7	34	2	18	433
APPROACH %	3%	88%	10%	10%	89%	1%	30%	0%	70%	63%	4%	33%	
APP/DEPART	157	/	159	212	/	230	10	/	36	54	/	8	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	2	98	7	13	105	1	2	0	1	19	1	10	259
APPROACH %	2%	92%	7%	11%	88%	1%	67%	0%	33%	63%	3%	33%	
PEAK HR FACTOR		0.863			0.708			0.250			0.577		0.780
APP/DEPART	107	/	110	119	/	125	3	/	20	30	/	4	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	18	5	1	16	0	0	0	0	1	0	0	41
4:15 PM	0	31	6	3	14	0	0	0	0	3	0	4	61
4:30 PM	0	26	5	0	15	0	0	0	0	1	0	2	49
4:45 PM	0	30	2	4	10	0	0	0	0	1	0	0	47
5:00 PM	0	18	3	2	14	0	0	0	0	2	0	0	39
5:15 PM	0	23	4	1	12	0	0	0	0	2	0	2	44
5:30 PM	0	20	2	1	11	0	0	0	0	2	0	0	36
5:45 PM	0	10	0	0	10	0	0	0	0	3	0	0	23
VOLUMES	0	176	27	12	102	0	0	0	0	15	0	8	340
APPROACH %	0%	87%	13%	11%	89%	0%	0%	0%	0%	65%	0%	35%	
APP/DEPART	203	/	184	114	/	117	0	/	39	23	/	0	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	105	18	8	55	0	0	0	0	6	0	6	198
APPROACH %	0%	85%	15%	13%	87%	0%	0%	0%	0%	50%	0%	50%	
PEAK HR FACTOR		0.831			0.926			0.000			0.429		0.811
APP/DEPART	123	/	111	63	/	61	0	/	26	12	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	16
	EAST & WEST:	Facility	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Facility			WESTBOUND Facility			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	1	2	0	0	1	0	0	1	0	
7:00 AM	0	1	0	0	0	1	0	0	0	0	0	1	3
7:15 AM	0	4	2	1	3	0	0	0	0	1	0	0	11
7:30 AM	0	1	0	1	4	0	0	0	0	1	0	2	9
7:45 AM	0	4	0	0	3	0	0	1	1	1	0	0	10
8:00 AM	0	1	1	0	2	0	0	1	0	0	0	0	5
8:15 AM	0	2	0	1	5	0	0	0	0	0	0	0	8
8:30 AM	0	6	0	2	0	0	0	0	0	0	2	1	11
8:45 AM	0	4	0	1	2	0	0	0	0	0	0	0	7
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	23	3	6	19	1	0	2	1	3	2	4	64
APPROACH %	0%	88%	12%	23%	73%	4%	0%	67%	33%	33%	22%	44%	
APP/DEPART	26	/	27	26	/	23	3	/	11	9	/	3	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	0	10	3	2	12	0	0	2	1	3	0	2	35
APPROACH %	0%	77%	23%	14%	86%	0%	0%	67%	33%	60%	0%	40%	
PEAK HR FACTOR		0.542			0.700			0.375			0.417		0.795
APP/DEPART	13	/	12	14	/	16	3	/	7	5	/	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
4:15 PM	0	2	1	0	3	0	0	0	0	0	0	1	7
4:30 PM	0	2	0	0	3	0	0	0	0	0	0	0	5
4:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
5:00 PM	0	3	0	1	2	0	0	0	0	0	0	2	8
5:15 PM	0	4	0	0	2	0	0	0	2	1	0	0	9
5:30 PM	0	3	1	0	0	0	0	0	0	0	0	0	4
5:45 PM	0	2	1	0	0	0	0	0	0	0	0	0	3
VOLUMES	0	16	3	1	13	0	0	0	2	1	0	3	39
APPROACH %	0%	84%	16%	7%	93%	0%	0%	0%	100%	25%	0%	75%	
APP/DEPART	19	/	19	14	/	16	2	/	4	4	/	0	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	0	12	2	1	4	0	0	0	2	1	0	2	24
APPROACH %	0%	86%	14%	20%	80%	0%	0%	0%	100%	33%	0%	67%	
PEAK HR FACTOR		0.875			0.417			0.250			0.375		0.667
APP/DEPART	14	/	14	5	/	7	2	/	3	3	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	16
	EAST & WEST:	Facility	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Facility			WESTBOUND Facility			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	1	2	0	0	1	0	0	1	0	
7:00 AM	0	5	1	3	7	0	0	0	0	5	0	2	23
7:15 AM	0	6	1	0	12	0	0	0	0	5	0	3	27
7:30 AM	0	8	1	0	7	0	0	0	0	1	0	3	20
7:45 AM	0	9	1	2	10	0	0	0	0	1	0	1	24
8:00 AM	0	10	0	2	13	0	0	0	1	1	0	4	31
8:15 AM	0	8	1	2	12	0	1	0	0	3	0	1	28
8:30 AM	0	18	1	3	6	0	0	0	0	4	0	5	37
8:45 AM	2	16	3	4	12	0	0	0	0	0	0	2	39
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	2	80	9	16	79	0	1	0	1	20	0	21	229
APPROACH %	2%	88%	10%	17%	83%	0%	50%	0%	50%	49%	0%	51%	
APP/DEPART	91	/	102	95	/	100	2	/	25	41	/	2	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	2	52	5	11	43	0	1	0	1	8	0	12	135
APPROACH %	3%	88%	8%	20%	80%	0%	50%	0%	50%	40%	0%	60%	
PEAK HR FACTOR		0.702			0.844			0.500			0.556		0.865
APP/DEPART	59	/	65	54	/	52	2	/	16	20	/	2	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	8	2	0	15	0	0	0	0	1	0	1	27
4:15 PM	0	14	2	2	7	0	0	0	0	1	0	1	27
4:30 PM	0	8	1	3	12	0	0	0	0	1	0	3	28
4:45 PM	0	8	5	0	9	0	0	0	0	2	0	0	24
5:00 PM	0	9	2	4	6	0	0	0	0	1	0	4	26
5:15 PM	1	9	2	3	7	0	0	0	0	2	0	1	25
5:30 PM	0	6	5	1	8	0	0	0	0	2	0	3	25
5:45 PM	0	5	0	2	6	0	0	0	0	1	0	2	16
VOLUMES	1	67	19	15	70	0	0	0	0	11	0	15	198
APPROACH %	1%	77%	22%	18%	82%	0%	0%	0%	0%	42%	0%	58%	
APP/DEPART	87	/	82	85	/	82	0	/	34	26	/	0	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	38	10	5	43	0	0	0	0	5	0	5	106
APPROACH %	0%	79%	21%	10%	90%	0%	0%	0%	0%	50%	0%	50%	
PEAK HR FACTOR		0.750			0.800			0.000			0.625		0.946
APP/DEPART	48	/	43	48	/	48	0	/	15	10	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	16
	EAST & WEST:	Facility	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

AM ▲ N
PM ◄ W E ►
MD S ▼
OTHER
OTHER

	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Facility			WESTBOUND Facility			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	1	2	0	0	1	0	0	1	0	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR	7:00 AM												
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR	0.000			0.000			0.000			0.000			0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
VOLUMES	0	1	0	0	1	0	0	0	0	0	0	0	2
APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	1	/	1	1	/	1	0	/	0	0	/	0	0
BEGIN PEAK HR	5:00 PM												
VOLUMES	0	1	0	0	1	0	0	0	0	0	0	0	2
APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR	0.250			0.250			0.000			0.000			0.500
APP/DEPART	1	/	1	1	/	1	0	/	0	0	/	0	0

U-TURNS					RTOR			
NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	16
	EAST & WEST:	Facility	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Facility			WESTBOUND Facility			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	LANES:	1	2	1	1	2	0	0	1	0	0	1	0	
AM	7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
	7:15 AM	0	2	0	1	2	0	0	0	0	0	0	0	5
	7:30 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
	7:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
	8:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	8:15 AM	0	3	0	0	0	0	0	0	0	0	0	0	3
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	8	0	1	5	0	0	0	0	0	0	0	14
	APPROACH %	0%	100%	0%	17%	83%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	8	/	8	6	/	5	0	/	1	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	4	0	1	4	0	0	0	0	0	0	0	9
	APPROACH %	0%	100%	0%	20%	80%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.500			0.417			0.000			0.000		0.450
	APP/DEPART	4	/	4	5	/	4	0	/	1	0	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
	4:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
	4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	5	0	0	0	0	0	0	0	0	0	1	6
	APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	
	APP/DEPART	5	/	6	0	/	0	0	/	0	1	/	0	0
	BEGIN PEAK HR		3:45 PM											
	VOLUMES	0	5	0	0	0	0	0	0	0	0	0	0	5
	APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.625			0.000			0.000			0.000		0.625
	APP/DEPART	5	/	5	0	/	0	0	/	0	0	/	0	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Jan 22, 19

LOCATION: Chino
NORTH & SOUTH: Euclid
EAST & WEST: Kimball

PROJECT #: SC2056
LOCATION #: 17
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N
◄ W E ►
S ▼

☑ Add U-Turns to Left Turns

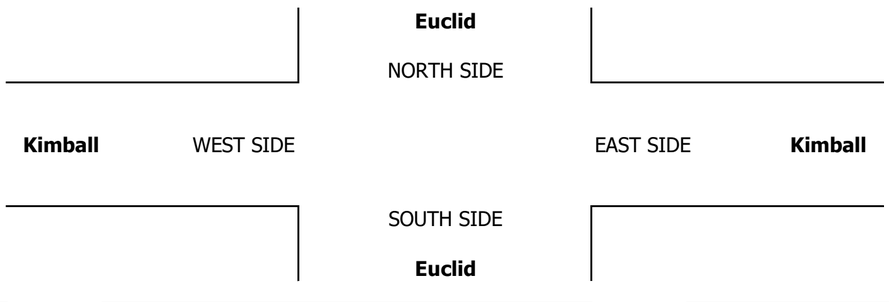
	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Kimball			WESTBOUND Kimball			
LANES:	NL 1	NT 2	NR 1	SL 2	ST 2	SR 1	EL 2	ET 2	ER 0	WL 1	WT 1.5	WR 0.5	TOTAL
7:00 AM	13	151	7	45	160	62	32	40	5	9	189	65	778
7:15 AM	21	160	3	37	129	90	13	50	12	8	172	57	752
7:30 AM	21	139	4	40	97	69	15	80	1	9	196	99	770
7:45 AM	24	189	7	48	116	91	26	42	3	4	149	58	757
8:00 AM	24	143	7	42	108	101	34	57	4	7	159	46	732
8:15 AM	16	157	9	36	104	50	16	55	4	16	166	67	696
8:30 AM	19	144	8	40	93	70	34	56	3	7	158	72	704
8:45 AM	12	152	16	34	105	58	30	42	6	10	107	53	625
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	150	1,235	61	322	912	591	200	422	38	70	1,296	517	5,814
APPROACH %	10%	85%	4%	18%	50%	32%	30%	64%	6%	4%	69%	27%	
APP/DEPART	1,446	/	1,958	1,825	/	1,031	660	/	798	1,883	/	2,027	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	79	639	21	170	502	312	86	212	21	30	706	279	3,057
APPROACH %	11%	86%	3%	17%	51%	32%	27%	66%	7%	3%	70%	27%	
PEAK HR FACTOR		0.840			0.921			0.831			0.835		0.982
APP/DEPART	739	/	1,007	984	/	557	319	/	399	1,015	/	1,094	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	10	171	11	76	132	31	81	145	7	9	61	43	777
4:15 PM	4	158	3	66	108	38	83	169	8	11	60	47	755
4:30 PM	14	177	7	104	138	57	84	136	7	4	61	37	826
4:45 PM	10	183	9	103	144	49	94	178	10	9	94	41	924
5:00 PM	12	177	7	120	172	33	67	160	15	13	56	41	873
5:15 PM	16	188	10	90	171	49	59	183	6	13	73	37	895
5:30 PM	19	172	3	93	185	44	59	185	7	13	61	37	878
5:45 PM	18	169	1	106	152	41	40	210	11	12	80	38	878
VOLUMES	103	1,395	51	758	1,202	342	567	1,366	71	84	546	321	6,806
APPROACH %	7%	90%	3%	33%	52%	15%	28%	68%	4%	9%	57%	34%	
APP/DEPART	1,549	/	2,347	2,302	/	1,375	2,004	/	2,111	951	/	973	0
BEGIN PEAK HR		4:45 PM											
VOLUMES	57	720	29	406	672	175	279	706	38	48	284	156	3,570
APPROACH %	7%	89%	4%	32%	54%	14%	27%	69%	4%	10%	58%	32%	
PEAK HR FACTOR		0.942			0.964			0.907			0.847		0.966
APP/DEPART	806	/	1,183	1,253	/	768	1,023	/	1,113	488	/	506	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	
0	0	1	0	1
4	2	0	0	6
0	1	0	0	1
0	1	0	0	1
2	1	0	0	3
3	0	0	0	3
1	1	0	0	2
1	1	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
11	7	1	0	19
0	0	0	0	0
1	15	0	0	16
0	10	0	0	10
3	9	0	0	12
3	13	0	0	16
2	4	0	0	6
2	2	0	0	4
5	0	0	0	5
18	64	0	0	82
0	0	0	0	0

RTOR

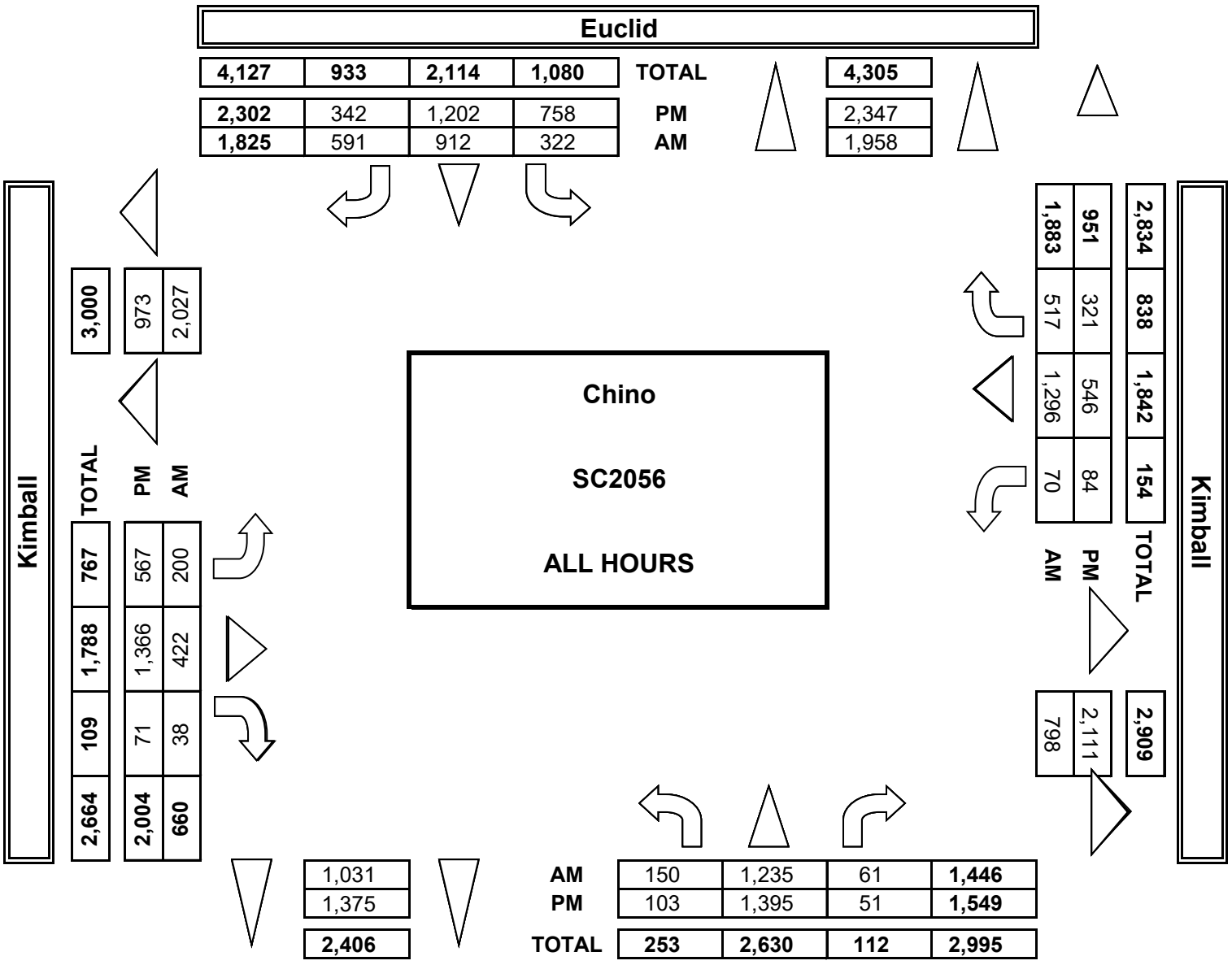
NRR	SRR	ERR	WRR
0	0	0	0
6	17	1	8
0	36	6	3
3	39	1	19
3	34	1	5
6	51	1	11
7	28	1	9
2	34	0	10
9	34	1	12
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
36	273	12	77
0	0	0	0
2	25	2	16
4	30	0	7
5	23	0	9
2	21	1	9
5	31	1	5
3	20	1	14
0	12	2	11
30	169	9	81
12	126	9	35

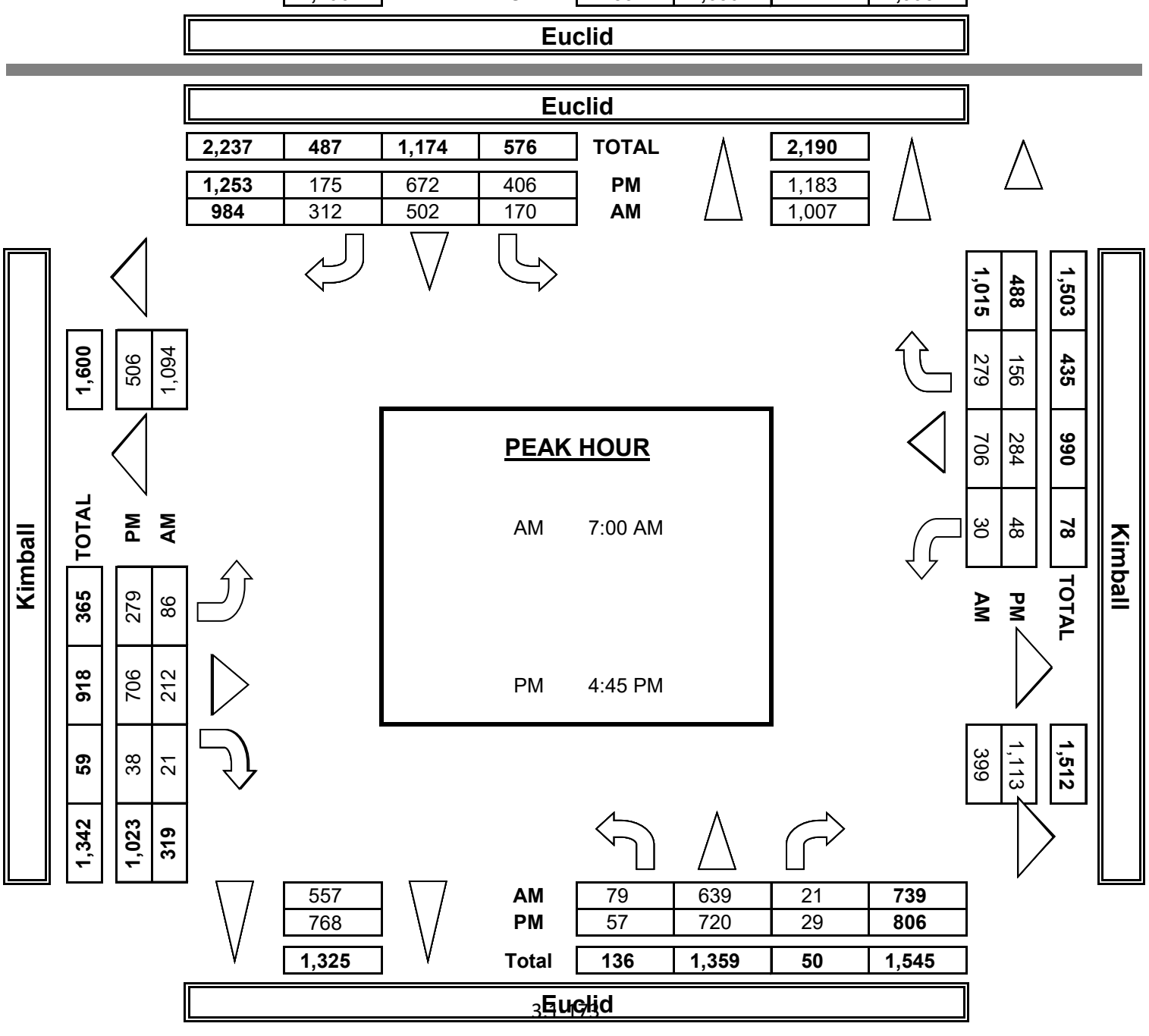


		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	8:30 AM	4	0	0	0	4	4	0	0	0	4	0	0	0	0	0
	8:45 AM	0	1	0	2	3	0	0	0	2	2	0	1	0	0	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	4	3	0	2	9	4	0	0	2	6	0	3	0	0	3
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	2	0	2	0	0	2	0	2	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	2	1	0	3	0	1	1	0	2	0	1	0	0	1
	4:45 PM	0	1	1	0	2	0	1	1	0	2	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	3	4	0	7	0	2	4	0	6	0	1	0	0	1

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	17
	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

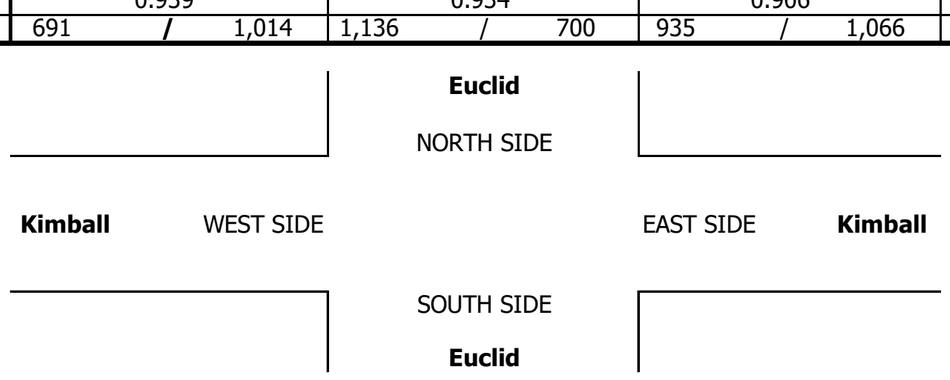
	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Kimball			WESTBOUND Kimball			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	2	2	1	2	2	0	1	1.5	0.5	
7:00 AM	10	135	6	32	132	47	24	38	1	7	186	60	678
7:15 AM	18	145	2	28	97	71	7	43	8	5	165	54	643
7:30 AM	19	130	3	32	78	62	7	77	1	3	191	94	697
7:45 AM	24	164	4	44	103	72	14	39	1	3	143	51	662
8:00 AM	20	118	6	42	87	54	15	51	3	5	155	40	596
8:15 AM	12	136	6	31	80	34	14	52	4	8	162	66	605
8:30 AM	16	111	5	37	70	39	15	49	2	5	150	64	563
8:45 AM	8	125	11	28	81	49	13	39	3	7	100	50	514
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	127	1,064	43	274	728	428	109	388	23	43	1,252	479	4,958
APPROACH %	10%	86%	3%	19%	51%	30%	21%	75%	4%	2%	71%	27%	
APP/DEPART	1,234	/	1,659	1,430	/	803	520	/	698	1,774	/	1,798	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	67	574	15	132	410	252	52	197	11	18	685	259	2,680
APPROACH %	10%	87%	2%	17%	51%	32%	20%	76%	4%	2%	71%	27%	
PEAK HR FACTOR		0.859			0.911			0.765			0.835		0.961
APP/DEPART	660	/	889	798	/	443	260	/	344	962	/	1,004	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	9	140	11	71	116	26	72	141	7	6	59	41	699
4:15 PM	4	134	3	66	100	30	67	165	7	7	60	41	684
4:30 PM	11	148	6	102	120	40	75	134	7	4	59	36	742
4:45 PM	9	155	8	99	128	33	81	168	9	7	88	38	823
5:00 PM	12	148	5	118	163	23	54	153	11	12	54	38	791
5:15 PM	16	158	10	87	156	32	45	175	6	12	64	35	796
5:30 PM	18	150	2	92	171	34	50	177	6	10	60	34	804
5:45 PM	17	151	0	101	144	25	35	205	8	10	79	37	812
VOLUMES	96	1,184	45	736	1,098	243	479	1,318	61	68	523	300	6,151
APPROACH %	7%	89%	3%	35%	53%	12%	26%	71%	3%	8%	59%	34%	
APP/DEPART	1,325	/	2,027	2,077	/	1,243	1,858	/	2,035	891	/	846	0
BEGIN PEAK HR		4:45 PM											
VOLUMES	46	611	25	368	618	122	230	673	32	41	266	145	3,214
APPROACH %	7%	88%	4%	32%	54%	11%	25%	72%	3%	9%	59%	32%	
PEAK HR FACTOR		0.939			0.934			0.906			0.850		0.976
APP/DEPART	691	/	1,014	1,136	/	700	935	/	1,066	452	/	434	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
4	2	0	0	6
0	1	0	0	1
0	1	0	0	1
2	1	0	0	3
1	0	0	0	1
1	1	0	0	2
1	1	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
9	7	0	0	16
0	0	0	0	0
4	11	0	0	13
1	15	0	0	16
0	10	0	0	10
3	9	0	0	12
3	13	0	0	16
2	4	0	0	6
1	2	0	0	3
4	0	0	0	4
16	64	0	0	80

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
5	15	0	6
0	29	5	3
3	35	1	18
2	25	0	5
5	28	1	9
5	19	1	9
0	21	0	8
7	31	1	10
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
27	203	9	68
10	104	6	32
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
9	6	2	9
2	20	2	14
4	19	0	7
5	16	0	8
2	14	1	9
5	21	1	5
2	16	1	12
0	9	1	10
29	121	8	74
14	67	3	34



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	17
	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 2:	NOTES:
2-AXLE WORK VEHICLES/ TRUCKS	

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

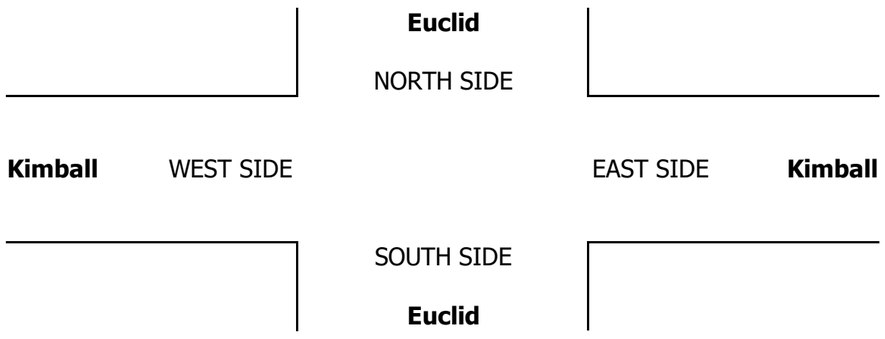
	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Kimball			WESTBOUND Kimball			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	2	2	1	2	2	0	1	1.5	0.5	
7:00 AM	2	10	0	10	18	6	4	1	2	1	2	3	59
7:15 AM	2	9	1	5	24	13	3	6	2	2	6	1	74
7:30 AM	2	6	1	7	10	4	3	2	0	2	5	3	45
7:45 AM	0	13	1	4	7	12	8	2	2	1	2	3	55
8:00 AM	2	17	0	0	14	42	15	1	1	1	2	5	100
8:15 AM	3	17	2	4	12	10	0	3	0	0	4	1	56
8:30 AM	1	24	0	2	12	24	9	5	1	1	4	6	89
8:45 AM	1	15	0	4	13	3	9	0	2	2	4	1	54
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	13	111	5	36	110	114	51	20	10	10	29	23	532
APPROACH %	10%	86%	4%	14%	42%	44%	63%	25%	12%	16%	47%	37%	
APP/DEPART	129	/	185	260	/	132	81	/	61	62	/	154	0
BEGIN PEAK HR		7:45 AM											
VOLUMES	4	71	3	10	45	88	32	11	4	3	12	15	300
APPROACH %	5%	89%	4%	7%	31%	62%	68%	23%	9%	10%	40%	50%	
PEAK HR FACTOR		0.800			0.638			0.691			0.682		0.750
APP/DEPART	80	/	118	143	/	54	47	/	24	30	/	104	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	21	0	3	11	3	6	2	0	1	2	1	50
4:15 PM	0	17	0	0	4	6	8	4	0	1	0	4	44
4:30 PM	1	22	1	1	7	10	6	2	0	0	1	1	52
4:45 PM	1	27	0	2	11	6	8	4	1	1	4	3	68
5:00 PM	0	23	1	2	7	6	7	7	1	0	1	1	56
5:15 PM	0	23	0	1	6	13	3	4	0	0	2	2	54
5:30 PM	0	14	0	1	10	8	3	4	1	0	0	2	43
5:45 PM	0	10	0	4	2	12	2	3	1	0	1	1	36
VOLUMES	2	157	2	14	58	64	43	30	4	3	11	15	403
APPROACH %	1%	98%	1%	10%	43%	47%	56%	39%	5%	10%	38%	52%	
APP/DEPART	161	/	215	136	/	65	77	/	46	29	/	77	0
BEGIN PEAK HR		4:30 PM											
VOLUMES	2	95	2	6	31	35	24	17	2	1	8	7	230
APPROACH %	2%	96%	2%	8%	43%	49%	56%	40%	5%	6%	50%	44%	
PEAK HR FACTOR		0.884			0.900			0.717			0.500		0.846
APP/DEPART	99	/	126	72	/	34	43	/	25	16	/	45	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
2	0	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
2	0	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	1	1
0	5	1	0
0	2	0	0
1	7	1	0
0	22	0	2
1	6	0	0
0	11	0	2
0	2	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
2	55	3	5
2	46	1	4
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	4	0	2
0	7	0	0
0	2	0	1
0	5	0	0
0	7	0	0
0	3	0	1
0	3	1	1
0	31	1	5
0	21	0	1



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	17
	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Kimball			WESTBOUND Kimball			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	2	2	1	2	2	0	1	1.5	0.5	
7:00 AM	1	2	1	3	1	1	0	1	0	0	1	1	12
7:15 AM	1	1	0	2	3	0	0	0	0	1	0	0	8
7:30 AM	0	0	0	0	4	1	1	0	0	0	0	1	7
7:45 AM	0	1	0	0	0	1	0	0	0	0	2	1	5
8:00 AM	1	1	0	0	0	1	1	3	0	0	1	0	8
8:15 AM	0	0	0	1	1	1	0	0	0	0	0	0	3
8:30 AM	0	2	0	0	1	1	3	0	0	0	1	0	8
8:45 AM	0	2	0	0	4	0	2	1	0	0	1	0	10
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	3	9	1	6	14	6	7	5	0	1	6	3	61
APPROACH %	23%	69%	8%	23%	54%	23%	58%	42%	0%	10%	60%	30%	
APP/DEPART	13	/	19	26	/	15	12	/	12	10	/	15	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	2	4	1	5	8	3	1	1	0	1	3	3	32
APPROACH %	29%	57%	14%	31%	50%	19%	50%	50%	0%	14%	43%	43%	
PEAK HR FACTOR		0.438			0.800			0.500			0.583		0.667
APP/DEPART	7	/	8	16	/	9	2	/	7	7	/	8	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	1	0	1	1	0	0	1	0	0	0	0	4
4:15 PM	0	3	0	0	0	0	1	0	0	1	0	0	5
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	1	1	2	2	0	0	0	0	0	6
5:00 PM	0	1	0	0	0	1	0	0	1	0	0	1	4
5:15 PM	0	1	0	2	2	1	0	1	0	0	3	0	10
5:30 PM	0	2	0	0	1	0	0	0	0	1	0	0	4
5:45 PM	0	1	0	1	0	1	0	1	0	0	0	0	4
VOLUMES	0	10	0	5	5	5	3	3	1	2	3	1	38
APPROACH %	0%	100%	0%	33%	33%	33%	43%	43%	14%	33%	50%	17%	
APP/DEPART	10	/	14	15	/	8	7	/	8	6	/	8	0
BEGIN PEAK HR		4:45 PM											
VOLUMES	0	4	0	3	4	4	2	1	1	1	3	1	24
APPROACH %	0%	100%	0%	27%	36%	36%	50%	25%	25%	20%	60%	20%	
PEAK HR FACTOR		0.500			0.550			0.500			0.417		0.600
APP/DEPART	4	/	7	11	/	6	4	/	4	5	/	7	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	17
	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Kimball			WESTBOUND Kimball			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	2	2	1	2	2	0	1	1.5	0.5	
7:00 AM	0	3	0	0	8	8	3	0	2	1	0	0	25
7:15 AM	0	4	0	0	5	6	3	1	2	0	1	2	24
7:30 AM	0	3	0	1	4	2	4	1	0	4	0	0	19
7:45 AM	0	11	2	0	6	6	4	0	0	0	1	2	32
8:00 AM	1	6	1	0	6	4	3	2	0	1	1	0	25
8:15 AM	1	3	1	0	11	5	2	0	0	8	0	0	31
8:30 AM	2	7	3	1	10	6	7	2	0	0	2	2	42
8:45 AM	3	10	5	2	7	6	6	1	1	1	2	2	46
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	7	47	12	4	57	43	32	7	5	15	7	8	244
APPROACH %	11%	71%	18%	4%	55%	41%	73%	16%	11%	50%	23%	27%	
APP/DEPART	66	/	87	104	/	77	44	/	23	30	/	57	0
BEGIN PEAK HR	8:00 AM												
VOLUMES	7	26	10	3	34	21	18	5	1	10	5	4	144
APPROACH %	16%	60%	23%	5%	59%	36%	75%	21%	4%	53%	26%	21%	
PEAK HR FACTOR	0.597			0.853			0.667			0.594			0.783
APP/DEPART	43	/	48	58	/	45	24	/	18	19	/	33	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	1	8	0	1	4	2	3	1	0	2	0	0	22
4:15 PM	0	4	0	0	4	2	7	0	1	1	0	1	20
4:30 PM	2	5	0	1	11	7	3	0	0	0	1	0	30
4:45 PM	0	1	1	0	4	8	3	6	0	1	2	0	26
5:00 PM	0	4	1	0	2	3	6	0	2	1	1	1	21
5:15 PM	0	6	0	0	7	3	11	3	0	1	3	0	34
5:30 PM	1	6	1	0	3	2	6	4	0	1	1	1	26
5:45 PM	1	7	1	0	6	3	3	1	2	2	0	0	26
VOLUMES	5	41	4	2	41	30	42	15	5	9	8	3	205
APPROACH %	10%	82%	8%	3%	56%	41%	68%	24%	8%	45%	40%	15%	
APP/DEPART	50	/	86	73	/	57	62	/	21	20	/	41	0
BEGIN PEAK HR	4:30 PM												
VOLUMES	2	16	2	1	24	21	23	9	2	3	7	1	111
APPROACH %	10%	80%	10%	2%	52%	46%	68%	26%	6%	27%	64%	9%	
PEAK HR FACTOR	0.714			0.605			0.607			0.688			0.816
APP/DEPART	20	/	40	46	/	29	34	/	12	11	/	30	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	17
	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Kimball			WESTBOUND Kimball			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	2	2	1	2	2	0	1	1.5	0.5	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	1
8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	1	0	1	0	0	2
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%	
APP/DEPART	0	/	0	0	/	1	1	/	1	1	/	0	0
BEGIN PEAK HR	8:00 AM												
VOLUMES	0	0	0	0	0	0	0	1	0	1	0	0	2
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.250			0.250		0.500
APP/DEPART	0	/	0	0	/	1	1	/	1	1	/	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	1	0	1	0	0	0	0	0	1	0	0	3
APPROACH %	0%	100%	0%	100%	0%	0%	0%	0%	0%	100%	0%	0%	
APP/DEPART	1	/	1	1	/	1	0	/	1	1	/	0	0
BEGIN PEAK HR	4:15 PM												
VOLUMES	0	1	0	1	0	0	0	0	0	1	0	0	3
APPROACH %	0%	100%	0%	100%	0%	0%	0%	0%	0%	100%	0%	0%	
PEAK HR FACTOR		0.250			0.250			0.000			0.250		0.750
APP/DEPART	1	/	1	1	/	1	0	/	1	1	/	0	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	17
	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Kimball			WESTBOUND Kimball			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	2	2	1	2	2	0	1	1.5	0.5	
7:00 AM	0	1	0	0	1	0	0	0	0	0	0	1	3
7:15 AM	0	1	0	2	0	0	0	0	0	0	0	0	3
7:30 AM	0	0	0	0	1	0	0	0	0	0	0	1	2
7:45 AM	0	0	0	0	0	0	0	1	0	0	1	1	3
8:00 AM	0	1	0	0	1	0	0	0	0	0	0	1	3
8:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	4	0	2	3	0	0	1	0	0	2	4	16
APPROACH %	0%	100%	0%	40%	60%	0%	0%	100%	0%	0%	33%	67%	
APP/DEPART	4	/	8	5	/	3	1	/	3	6	/	2	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	2	0	2	2	0	0	1	0	0	1	3	11
APPROACH %	0%	100%	0%	50%	50%	0%	0%	100%	0%	0%	25%	75%	
PEAK HR FACTOR		0.500			0.500			0.250			0.500		0.917
APP/DEPART	2	/	5	4	/	2	1	/	3	4	/	1	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	1	0	0	0	0	0	0	0	0	0	1	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	2	0	0	0	0	0	0	0	1	1	2	6
APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	0%	25%	25%	50%	
APP/DEPART	2	/	4	0	/	1	0	/	0	4	/	1	0
BEGIN PEAK HR		3:45 PM											
VOLUMES	0	2	0	0	0	0	0	0	0	0	0	2	4
APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	
PEAK HR FACTOR		0.500			0.000			0.000			0.500		0.500
APP/DEPART	2	/	4	0	/	0	0	/	0	2	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Jan 22, 19

LOCATION: Chino
NORTH & SOUTH: Euclid
EAST & WEST: Bickmore

PROJECT #: SC2056
LOCATION #: 18
CONTROL: SIGNAL

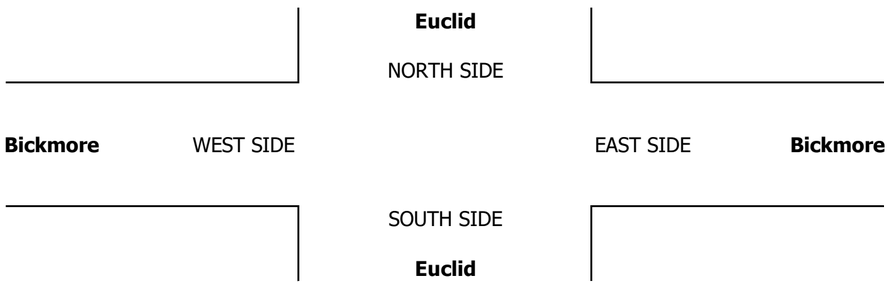
NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W E ►
S ▼

☑ Add U-Turns to Left Turns

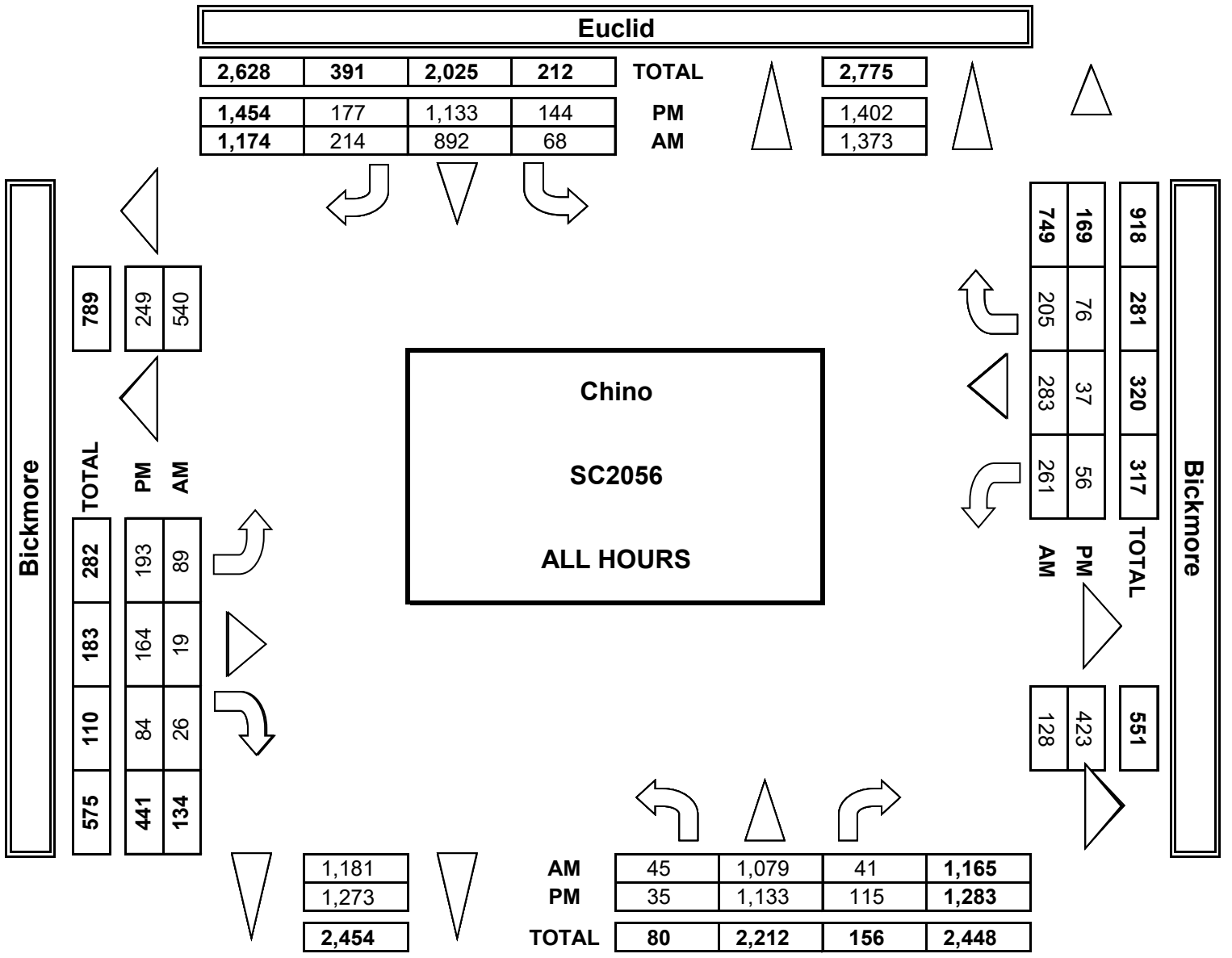
		NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Bickmore			WESTBOUND Bickmore				U-TURNS					RTOR			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL	NRR 0	SRR 0	ERR 0	WRR 0
AM	7:00 AM	7	117	3	9	128	21	9	2	6	67	70	38	477	1	0	0	0	1	2	10	3	11
	7:15 AM	4	130	10	6	116	34	5	3	2	31	37	26	404	0	0	0	0	0	4	12	0	9
	7:30 AM	5	145	4	5	137	31	2	3	2	27	31	29	421	0	0	0	0	0	0	10	0	10
	7:45 AM	6	124	2	11	110	29	5	0	3	38	53	34	415	0	0	0	0	0	0	11	1	5
	8:00 AM	6	131	3	15	111	41	22	4	3	35	36	26	433	0	0	0	0	0	1	18	3	9
	8:15 AM	7	144	6	5	94	20	15	2	3	29	20	17	362	1	0	0	0	1	1	7	3	6
	8:30 AM	5	142	9	6	107	20	21	3	6	19	16	19	373	0	0	0	0	0	1	6	2	5
	8:45 AM	5	146	4	11	89	18	10	2	1	15	20	16	337	0	0	0	0	0	1	4	0	8
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	45	1,079	41	68	892	214	89	19	26	261	283	205	3,222	2	0	0	0	2	10	78	12	63
	APPROACH %	4%	93%	4%	6%	76%	18%	66%	14%	19%	35%	38%	27%										
	APP/DEPART	1,165	/	1,373	1,174	/	1,181	134	/	128	749	/	540	0									
	BEGIN PEAK HR		7:00 AM																				
	VOLUMES	22	516	19	31	491	115	21	8	13	163	191	127	1,717						6	43	4	35
	APPROACH %	4%	93%	3%	5%	77%	18%	50%	19%	31%	34%	40%	26%										
	PEAK HR FACTOR		0.904			0.921			0.618			0.687		0.900									
	APP/DEPART	557	/	664	637	/	668	42	/	58	481	/	327	0									
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	3	152	12	16	112	22	29	21	12	7	8	4	398	0	0	0	0	0	6	5	3	1
	4:15 PM	4	141	5	14	133	23	25	18	8	4	4	6	385	0	0	0	0	0	3	6	2	6
	4:30 PM	5	165	12	17	141	27	43	24	17	8	4	12	475	0	0	0	0	0	5	7	6	10
	4:45 PM	2	133	16	12	167	35	28	26	9	9	7	8	452	0	0	0	0	0	6	13	3	0
	5:00 PM	6	124	21	18	130	24	20	23	9	9	2	16	402	0	0	0	0	0	4	5	3	8
	5:15 PM	3	144	22	26	155	16	7	22	5	9	6	12	427	0	0	0	0	0	6	4	2	8
	5:30 PM	1	136	14	20	151	15	9	14	14	1	4	7	386	0	0	0	0	0	1	1	4	4
	5:45 PM	11	138	13	21	144	15	32	16	10	9	2	11	422	0	0	0	0	0	5	6	4	7
	VOLUMES	35	1,133	115	144	1,133	177	193	164	84	56	37	76	3,347	0	0	0	0	0	36	47	27	44
	APPROACH %	3%	88%	9%	10%	78%	12%	44%	37%	19%	33%	22%	45%										
	APP/DEPART	1,283	/	1,402	1,454	/	1,273	441	/	423	169	/	249	0									
	BEGIN PEAK HR		4:30 PM																				
	VOLUMES	16	566	71	73	593	102	98	95	40	35	19	48	1,756						21	29	14	26
	APPROACH %	2%	87%	11%	10%	77%	13%	42%	41%	17%	34%	19%	47%										
	PEAK HR FACTOR		0.897			0.897			0.693			0.944		0.924									
	APP/DEPART	653	/	712	768	/	668	233	/	239	102	/	137	0									

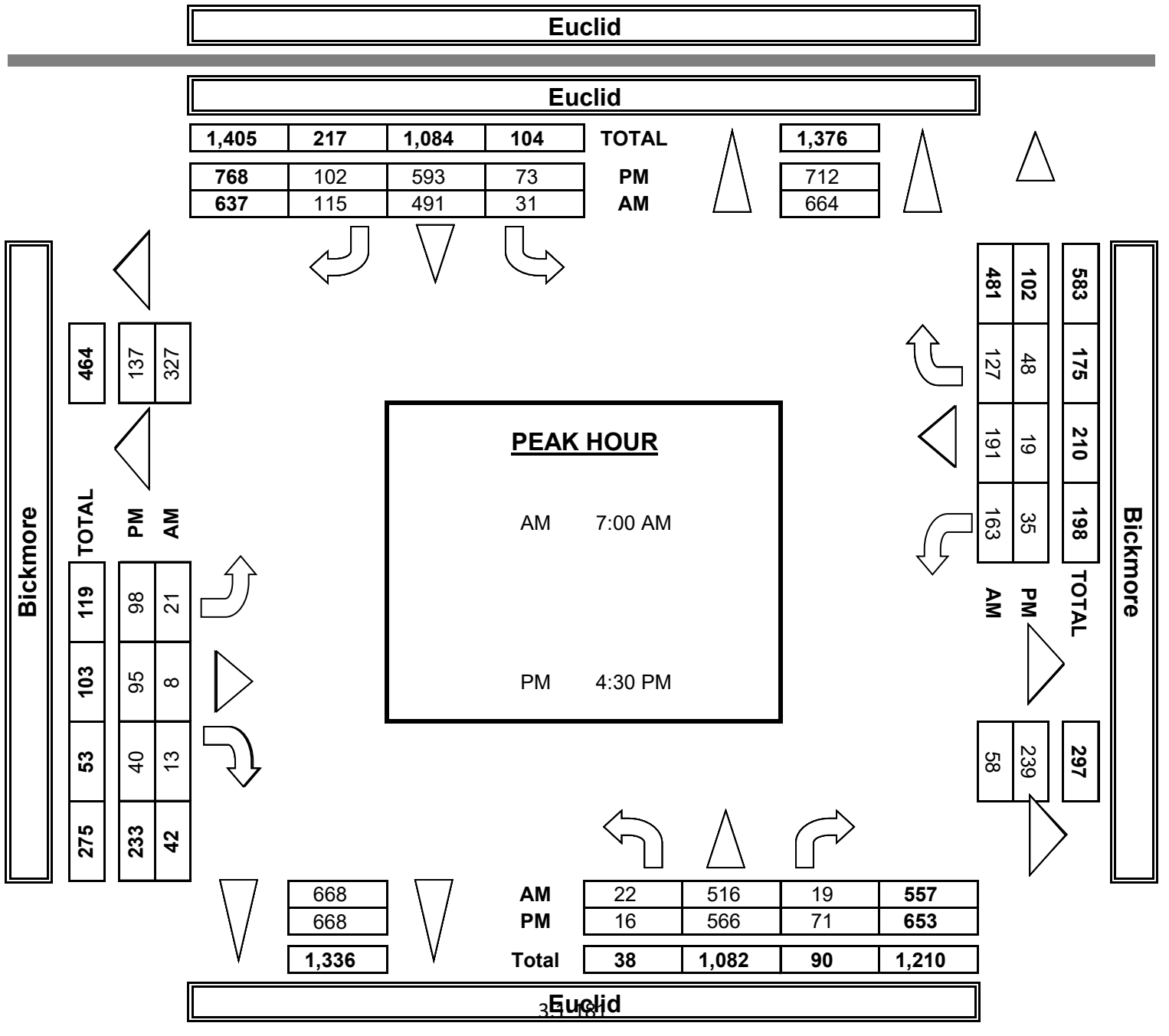


		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	18
	EAST & WEST:	Bickmore	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

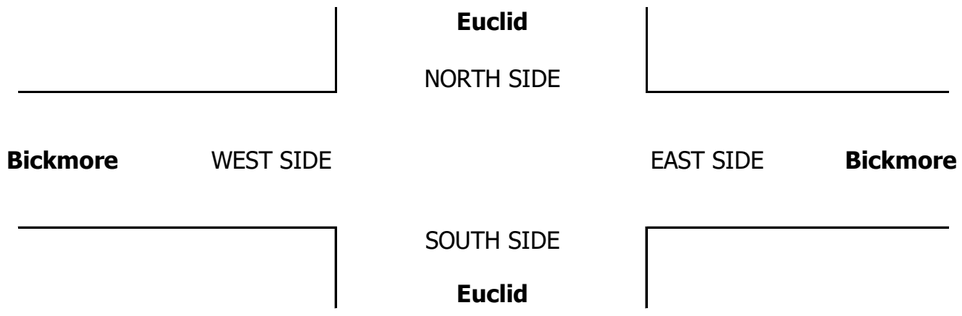
	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Bickmore			WESTBOUND Bickmore			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL
7:00 AM	6	113	2	6	105	14	3	2	3	66	68	33	421
7:15 AM	3	121	8	6	96	23	2	3	1	30	36	25	354
7:30 AM	4	130	4	5	101	23	1	2	1	23	30	27	351
7:45 AM	5	117	2	8	88	23	2	0	1	36	53	34	369
8:00 AM	6	120	3	11	89	34	9	4	0	33	36	23	368
8:15 AM	6	133	5	3	80	13	4	1	1	29	20	16	311
8:30 AM	4	127	8	6	91	9	13	3	1	18	16	17	313
8:45 AM	3	128	4	10	77	8	0	2	0	15	20	15	282
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	37	989	36	55	727	147	34	17	8	250	279	190	2,769
APPROACH %	3%	93%	3%	6%	78%	16%	58%	29%	14%	35%	39%	26%	
APP/DEPART	1,062	/	1,213	929	/	987	59	/	108	719	/	461	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	17	481	16	25	390	83	8	7	6	155	187	119	1,495
APPROACH %	3%	93%	3%	5%	78%	17%	38%	33%	29%	34%	41%	26%	
PEAK HR FACTOR		0.933			0.965			0.656			0.690		0.888
APP/DEPART	515	/	608	498	/	552	21	/	48	461	/	287	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	1	135	12	16	105	11	25	21	12	6	7	4	355
4:15 PM	1	120	5	14	120	12	16	18	6	4	3	4	323
4:30 PM	3	145	11	17	134	9	39	24	15	8	2	12	419
4:45 PM	2	119	15	12	161	26	20	26	7	9	7	8	412
5:00 PM	1	110	20	17	122	14	17	23	5	9	2	15	355
5:15 PM	1	136	22	24	144	10	6	21	4	9	5	11	393
5:30 PM	0	120	13	20	146	10	7	14	9	1	4	5	349
5:45 PM	4	129	13	21	138	7	29	16	7	9	2	10	385
VOLUMES	13	1,014	111	141	1,070	99	159	163	65	55	32	69	2,991
APPROACH %	1%	89%	10%	11%	82%	8%	41%	42%	17%	35%	21%	44%	
APP/DEPART	1,138	/	1,242	1,310	/	1,190	387	/	415	156	/	144	0
BEGIN PEAK HR		4:30 PM											
VOLUMES	7	510	68	70	561	59	82	94	31	35	16	46	1,579
APPROACH %	1%	87%	12%	10%	81%	9%	40%	45%	15%	36%	16%	47%	
PEAK HR FACTOR		0.920			0.867			0.663			0.933		0.942
APP/DEPART	585	/	638	690	/	627	207	/	232	97	/	82	0

U-TURNS

NB	SB	EB	WB	TTL
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
2	0	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
2	5	1	9
3	7	0	8
0	7	0	8
0	9	1	5
1	14	0	7
0	6	1	5
1	3	0	5
1	2	0	7
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
8	53	3	54
5	28	2	30
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
6	3	3	1
3	2	2	4
4	2	6	10
6	8	3	0
4	1	2	8
6	2	2	8
0	0	4	2
5	1	2	6
34	19	24	39
20	13	13	26



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	18
	EAST & WEST:	Bickmore	CONTROL:	SIGNAL

CLASS 2:	NOTES:
2-AXLE WORK VEHICLES/ TRUCKS	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Bickmore			WESTBOUND Bickmore			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	1	1	1	1	1	1	0	
7:00 AM	1	4	0	1	14	5	0	0	2	1	2	4	34
7:15 AM	1	7	1	0	12	10	0	0	0	1	1	0	33
7:30 AM	0	8	0	0	27	7	0	0	0	1	0	2	45
7:45 AM	0	3	0	3	15	2	0	0	0	1	0	0	24
8:00 AM	0	5	0	4	12	5	8	0	3	2	0	3	42
8:15 AM	1	4	1	1	8	4	5	1	1	0	0	1	27
8:30 AM	0	7	1	0	14	10	6	0	3	1	0	2	44
8:45 AM	0	10	0	1	7	5	4	0	0	0	0	1	28
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	3	48	3	10	109	48	23	1	9	7	3	13	277
APPROACH %	6%	89%	6%	6%	65%	29%	70%	3%	27%	30%	13%	57%	
APP/DEPART	54	/	84	167	/	125	33	/	14	23	/	54	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	1	23	1	7	66	24	8	0	3	5	1	5	144
APPROACH %	4%	92%	4%	7%	68%	25%	73%	0%	27%	45%	9%	45%	
PEAK HR FACTOR		0.694			0.713			0.250			0.550		0.800
APP/DEPART	25	/	36	97	/	74	11	/	8	11	/	26	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	2	12	0	0	1	8	1	0	0	1	1	0	26
4:15 PM	3	14	0	0	7	9	5	0	0	0	1	2	41
4:30 PM	2	14	1	0	2	17	3	0	0	0	2	0	41
4:45 PM	0	8	1	0	2	8	4	0	0	0	0	0	23
5:00 PM	4	8	1	1	6	7	3	0	1	0	0	1	32
5:15 PM	2	4	0	2	5	4	0	1	0	0	1	1	20
5:30 PM	1	10	1	0	0	4	0	0	0	0	0	2	18
5:45 PM	2	6	0	0	0	7	1	0	1	0	0	1	18
VOLUMES	16	76	4	3	23	64	17	1	2	1	5	7	219
APPROACH %	17%	79%	4%	3%	26%	71%	85%	5%	10%	8%	38%	54%	
APP/DEPART	96	/	100	90	/	26	20	/	8	13	/	85	0
BEGIN PEAK HR		4:15 PM											
VOLUMES	9	44	3	1	17	41	15	0	1	0	3	3	137
APPROACH %	16%	79%	5%	2%	29%	69%	94%	0%	6%	0%	50%	50%	
PEAK HR FACTOR		0.824			0.776			0.800			0.500		0.835
APP/DEPART	56	/	62	59	/	18	16	/	4	6	/	53	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	18
	EAST & WEST:	Bickmore	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Bickmore			WESTBOUND Bickmore			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	1	1	1	1	1	1	0	
7:00 AM	0	0	0	1	2	0	0	0	1	0	0	0	4
7:15 AM	0	0	0	0	4	0	0	0	0	0	0	1	5
7:30 AM	0	2	0	0	3	0	0	0	0	1	0	0	6
7:45 AM	0	1	0	0	5	1	0	0	0	0	0	0	7
8:00 AM	0	0	0	0	1	1	0	0	0	0	0	0	2
8:15 AM	0	2	0	1	3	0	0	0	0	0	0	0	6
8:30 AM	0	4	0	0	1	0	0	0	0	0	0	0	5
8:45 AM	0	1	0	0	0	0	1	0	0	0	0	0	2
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	10	0	2	19	2	1	0	1	1	0	1	37
APPROACH %	0%	100%	0%	9%	83%	9%	50%	0%	50%	50%	0%	50%	
APP/DEPART	10	/	12	23	/	21	2	/	2	2	/	2	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	3	0	1	14	1	0	0	1	1	0	1	22
APPROACH %	0%	100%	0%	6%	88%	6%	0%	0%	100%	50%	0%	50%	
PEAK HR FACTOR		0.375			0.667			0.250			0.500		0.786
APP/DEPART	3	/	4	16	/	16	1	/	1	2	/	1	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
4:15 PM	0	3	0	0	0	1	0	0	0	0	0	0	4
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
4:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
5:00 PM	0	2	0	0	0	0	0	0	1	0	0	0	3
5:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
5:30 PM	0	0	0	0	1	0	0	0	1	0	0	0	2
5:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
VOLUMES	0	9	0	0	5	1	0	0	3	0	0	0	18
APPROACH %	0%	100%	0%	0%	83%	17%	0%	0%	100%	0%	0%	0%	
APP/DEPART	9	/	9	6	/	8	3	/	0	0	/	1	0
BEGIN PEAK HR		4:15 PM											
VOLUMES	0	7	0	0	2	1	0	0	1	0	0	0	11
APPROACH %	0%	100%	0%	0%	67%	33%	0%	0%	100%	0%	0%	0%	
PEAK HR FACTOR		0.583			0.750			0.250			0.000		0.688
APP/DEPART	7	/	7	3	/	3	1	/	0	0	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	18
	EAST & WEST:	Bickmore	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Bickmore			WESTBOUND Bickmore			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	1	1	1	1	1	1	0	
7:00 AM	0	0	0	0	7	2	6	0	0	0	0	0	15
7:15 AM	0	1	0	0	4	1	3	0	1	0	0	0	10
7:30 AM	1	4	0	0	5	1	1	0	1	0	1	0	14
7:45 AM	1	3	0	0	2	3	3	0	2	0	0	0	14
8:00 AM	0	6	0	0	8	1	5	0	0	0	0	0	20
8:15 AM	0	4	0	0	3	3	6	0	1	0	0	0	17
8:30 AM	1	4	0	0	1	1	2	0	2	0	0	0	11
8:45 AM	2	7	0	0	5	5	5	0	1	0	0	0	25
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	5	29	0	0	35	17	31	0	8	0	1	0	126
APPROACH %	15%	85%	0%	0%	67%	33%	79%	0%	21%	0%	100%	0%	
APP/DEPART	34	/	60	52	/	43	39	/	0	1	/	23	0
BEGIN PEAK HR	8:00 AM												
VOLUMES	3	21	0	0	17	10	18	0	4	0	0	0	73
APPROACH %	13%	88%	0%	0%	63%	37%	82%	0%	18%	0%	0%	0%	
PEAK HR FACTOR	0.667			0.675			0.786			0.000			0.730
APP/DEPART	24	/	39	27	/	21	22	/	0	0	/	13	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	4	0	0	5	3	3	0	0	0	0	0	15
4:15 PM	0	4	0	0	6	1	4	0	2	0	0	0	17
4:30 PM	0	4	0	0	3	1	1	0	2	0	0	0	11
4:45 PM	0	4	0	0	3	1	4	0	2	0	0	0	14
5:00 PM	1	3	0	0	2	3	0	0	2	0	0	0	11
5:15 PM	0	4	0	0	6	2	1	0	0	0	0	0	13
5:30 PM	0	6	0	0	3	1	2	0	4	0	0	0	16
5:45 PM	5	2	0	0	5	1	2	0	2	0	0	0	17
VOLUMES	6	31	0	0	33	13	17	0	14	0	0	0	114
APPROACH %	16%	84%	0%	0%	72%	28%	55%	0%	45%	0%	0%	0%	
APP/DEPART	37	/	48	46	/	47	31	/	0	0	/	19	0
BEGIN PEAK HR	4:00 PM												
VOLUMES	6	15	0	0	16	7	5	0	8	0	0	0	57
APPROACH %	29%	71%	0%	0%	70%	30%	38%	0%	62%	0%	0%	0%	
PEAK HR FACTOR	0.750			0.719			0.542			0.000			0.838
APP/DEPART	21	/	20	23	/	24	13	/	0	0	/	13	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	18
	EAST & WEST:	Bickmore	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Bickmore			WESTBOUND Bickmore			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	1	1	1	1	1	1	0	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR	7:00 AM												
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR	0.000			0.000			0.000			0.000			0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	1	0	0	1	0	0	0	0	0	0	0	2
APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	1	/	1	1	/	1	0	/	0	0	/	0	0
BEGIN PEAK HR	4:15 PM												
VOLUMES	0	1	0	0	1	0	0	0	0	0	0	0	2
APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR	0.250			0.250			0.000			0.000			0.500
APP/DEPART	1	/	1	1	/	1	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	18
	EAST & WEST:	Bickmore	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Bickmore			WESTBOUND Bickmore			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	LANES:	1	2	0	1	2	1	1	1	1	1	1	0	
AM	7:00 AM	0	0	1	1	0	0	0	0	0	0	0	1	3
	7:15 AM	0	1	1	0	0	0	0	0	0	0	0	0	2
	7:30 AM	0	1	0	0	1	0	0	1	0	2	0	0	5
	7:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	1
	8:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	8:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	3	2	1	2	0	0	1	0	3	0	1	13
	APPROACH %	0%	60%	40%	33%	67%	0%	0%	100%	0%	75%	0%	25%	
	APP/DEPART	5	/	4	3	/	5	1	/	4	4	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	2	2	1	1	0	0	1	0	3	0	1	11
	APPROACH %	0%	50%	50%	50%	50%	0%	0%	100%	0%	75%	0%	25%	
	PEAK HR FACTOR		0.500			0.500			0.250			0.500		0.550
	APP/DEPART	4	/	3	2	/	4	1	/	4	4	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	2	0	0	1	0	0	0	0	0	0	0	3
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	2	/	2	1	/	1	0	/	0	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	1	0	0	1	0	0	0	0	0	0	0	2
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.250			0.250			0.000			0.000		0.500
	APP/DEPART	1	/	1	1	/	1	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Jan 22, 19

LOCATION: Chino
NORTH & SOUTH: Euclid
EAST & WEST: Pine

PROJECT #: SC2056
LOCATION #: 19
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W E ►
S ▼

☑ Add U-Turns to Left Turns

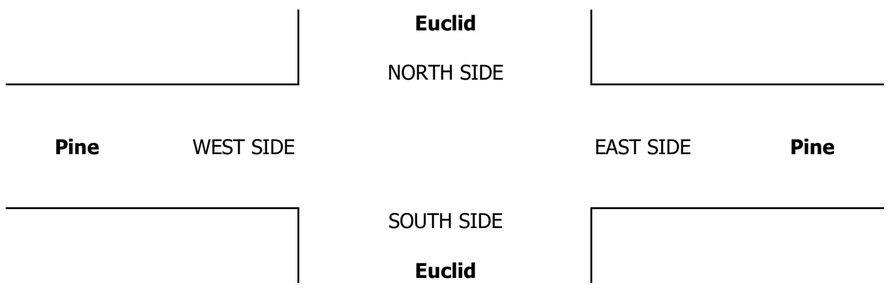
		NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Pine			WESTBOUND Pine			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 1.5	SR 0.5	EL 1	ET 1	ER 1	WL 2	WT 1	WR 0	TOTAL
AM	7:00 AM	9	118	142	8	200	6	0	21	8	234	50	7	803
	7:15 AM	4	131	135	5	126	5	1	21	1	228	80	15	752
	7:30 AM	7	156	166	6	160	6	1	25	10	209	68	6	820
	7:45 AM	5	131	159	9	129	1	0	40	3	231	68	5	781
	8:00 AM	6	138	122	5	137	1	1	52	12	255	79	3	811
	8:15 AM	17	138	147	9	118	2	4	43	6	205	71	8	768
	8:30 AM	12	150	160	8	130	3	2	35	6	186	51	10	753
	8:45 AM	10	134	117	4	88	0	0	39	3	190	33	13	631
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	70	1,096	1,148	54	1,088	24	9	276	49	1,738	500	67	6,119
	APPROACH %	3%	47%	50%	5%	93%	2%	3%	83%	15%	75%	22%	3%	
	APP/DEPART	2,314	/	1,173	1,166	/	2,878	334	/	1,477	2,305	/	591	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	35	563	594	29	544	10	6	160	31	900	286	22	3,180
	APPROACH %	3%	47%	50%	5%	93%	2%	3%	81%	16%	75%	24%	2%	
	PEAK HR FACTOR		0.906			0.847			0.758			0.896		0.970
	APP/DEPART	1,192	/	592	583	/	1,478	197	/	782	1,208	/	328	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	2	120	231	8	110	2	2	78	15	121	18	15	722
	4:15 PM	10	148	256	10	138	0	1	76	12	110	13	5	779
	4:30 PM	4	168	230	11	147	3	2	101	16	92	13	11	798
	4:45 PM	9	150	243	9	168	0	0	112	9	110	21	5	836
	5:00 PM	5	157	251	12	155	1	2	94	16	114	15	8	830
	5:15 PM	4	152	261	11	150	0	1	95	20	124	11	4	833
	5:30 PM	10	150	261	17	160	1	2	115	23	97	16	3	855
	5:45 PM	6	151	227	18	144	0	2	108	20	91	18	6	791
	VOLUMES	50	1,196	1,960	96	1,172	7	12	779	131	859	125	57	6,444
	APPROACH %	2%	37%	61%	8%	92%	1%	1%	84%	14%	83%	12%	5%	
	APP/DEPART	3,206	/	1,266	1,275	/	2,165	922	/	2,834	1,041	/	179	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	28	609	1,016	49	633	2	5	416	68	445	63	20	3,354
	APPROACH %	2%	37%	61%	7%	93%	0%	1%	85%	14%	84%	12%	4%	
	PEAK HR FACTOR		0.982			0.961			0.873			0.950		0.981
	APP/DEPART	1,653	/	634	684	/	1,148	489	/	1,481	528	/	91	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
2	0	0	0	2
0	0	0	0	0
1	1	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
3	1	0	0	4
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	1	0	0	1
3	1	0	0	4

RTOR

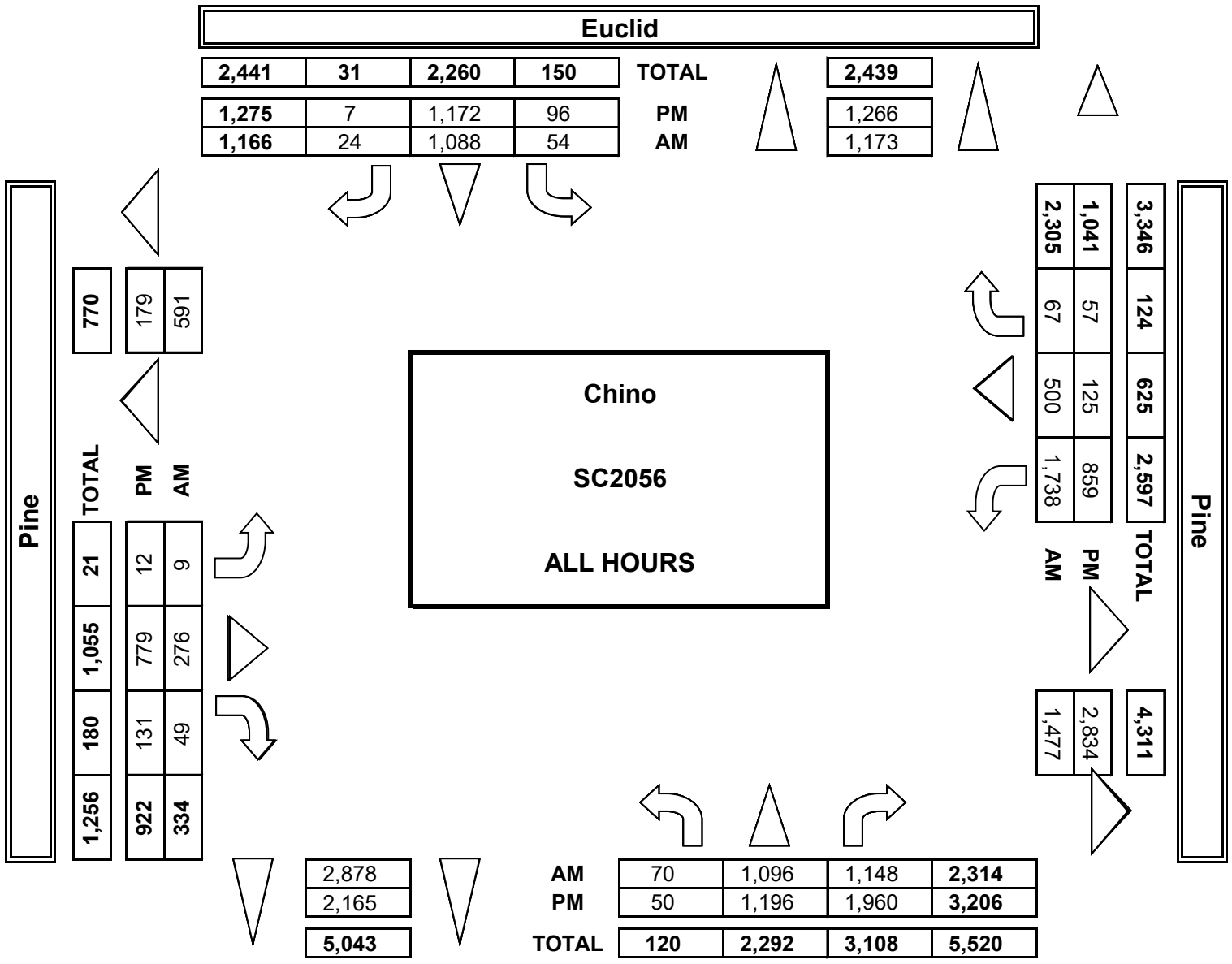
NRR	SRR	ERR	WRR
0	0	X	0
50	0	0	1
52	2	0	0
70	2	0	1
74	0	0	1
54	1	0	0
50	1	0	0
55	2	0	3
40	0	0	3
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
445	8	0	9
248	4	0	2
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
76	0	0	3
93	0	0	0
83	2	0	3
94	0	0	0
96	0	0	1
108	0	0	1
111	0	0	0
82	0	0	1
743	2	0	9
409	0	0	2

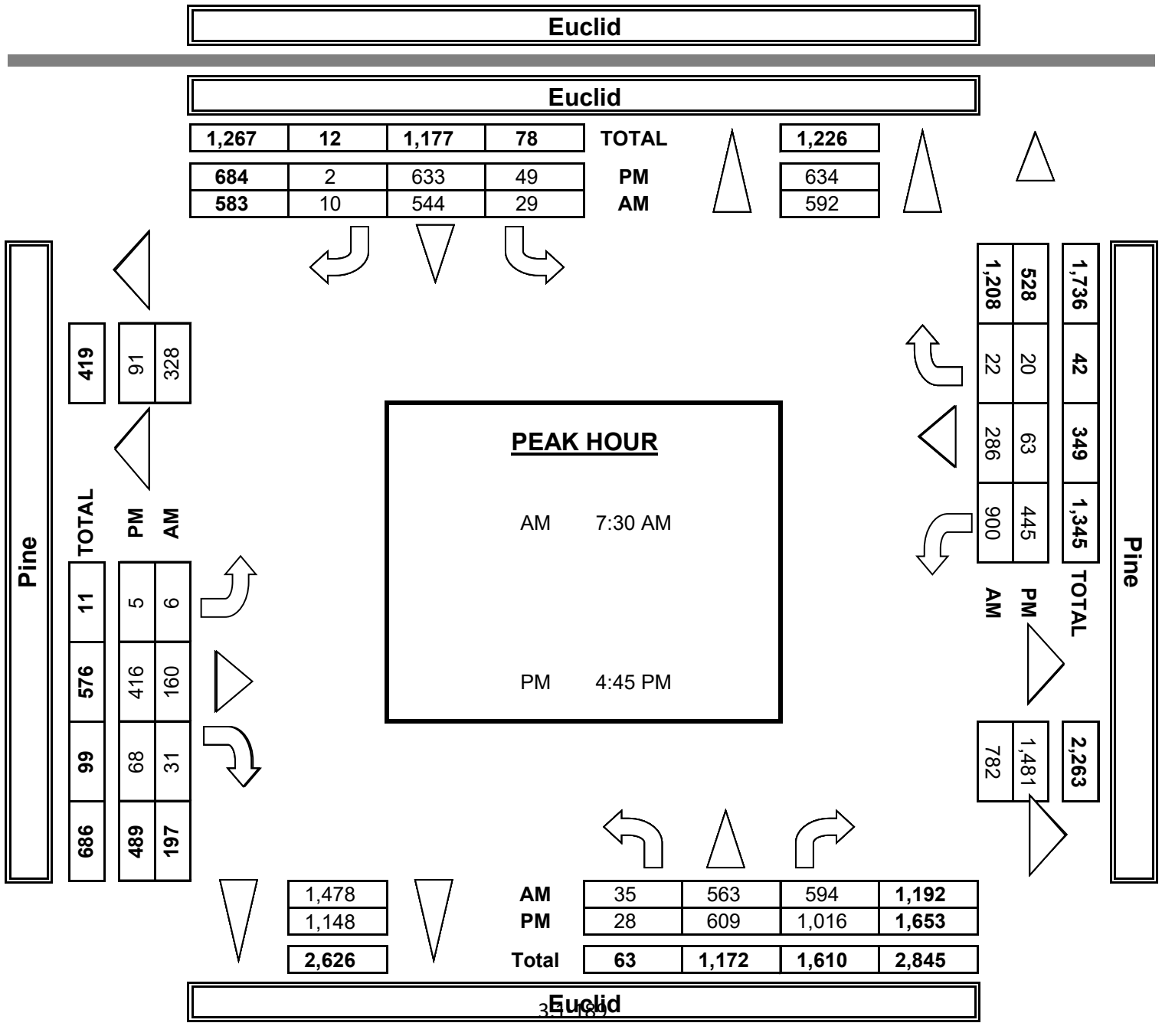


		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	1	0	1	0	2	0	0	0	0	0	1	0	1	0	2
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	1	1	1	0	3	0	0	0	0	0	1	1	1	0	3
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	19
	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Pine			WESTBOUND Pine			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	1	1.5	0.5	1	1	1	2	1	0	
7:00 AM	7	112	130	7	177	5	0	18	6	228	49	5	744
7:15 AM	3	119	128	4	106	1	1	16	0	224	77	13	692
7:30 AM	4	145	157	4	135	4	1	24	3	200	65	6	748
7:45 AM	3	121	144	8	109	1	0	36	2	211	64	4	703
8:00 AM	5	129	114	5	115	1	1	44	8	245	74	3	744
8:15 AM	13	129	137	8	101	1	3	39	3	201	68	8	711
8:30 AM	8	130	141	5	111	3	1	29	3	178	45	9	663
8:45 AM	7	119	109	4	75	0	0	34	1	187	30	10	576
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	50	1,004	1,060	45	929	16	7	240	26	1,674	472	58	5,581
APPROACH %	2%	47%	50%	5%	94%	2%	3%	88%	10%	76%	21%	3%	
APP/DEPART	2,114	/	1,070	990	/	2,631	273	/	1,344	2,204	/	536	0
BEGIN PEAK HR		7:30 AM											
VOLUMES	23	524	552	24	460	7	5	143	16	857	271	21	2,906
APPROACH %	2%	48%	50%	5%	93%	1%	3%	87%	10%	75%	24%	2%	
PEAK HR FACTOR		0.900			0.860			0.774			0.892		0.971
APP/DEPART	1,101	/	551	492	/	1,335	164	/	719	1,149	/	301	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	1	110	209	8	104	0	2	73	11	120	17	11	666
4:15 PM	7	132	246	9	127	0	0	69	11	104	13	5	723
4:30 PM	3	146	218	10	139	3	2	95	12	91	12	11	742
4:45 PM	4	135	238	8	157	0	0	106	8	104	20	5	785
5:00 PM	2	144	247	12	142	0	2	91	13	108	14	8	783
5:15 PM	1	137	252	11	141	0	1	92	18	121	11	3	788
5:30 PM	5	138	258	16	149	1	2	112	16	95	16	3	811
5:45 PM	2	138	222	18	138	0	2	106	17	90	17	6	756
VOLUMES	25	1,080	1,890	92	1,097	4	11	744	106	833	120	52	6,054
APPROACH %	1%	36%	63%	8%	92%	0%	1%	86%	12%	83%	12%	5%	
APP/DEPART	2,995	/	1,144	1,193	/	2,039	861	/	2,725	1,005	/	146	0
BEGIN PEAK HR		4:45 PM											
VOLUMES	10	554	995	47	589	1	5	401	55	428	61	19	3,167
APPROACH %	1%	35%	64%	7%	92%	0%	1%	87%	12%	84%	12%	4%	
PEAK HR FACTOR		0.973			0.959			0.887			0.941		0.976
APP/DEPART	1,561	/	578	637	/	1,074	461	/	1,443	508	/	72	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
1	1	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
2	1	0	0	3
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	19
	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 2:	NOTES:
2-AXLE WORK VEHICLES/ TRUCKS	

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

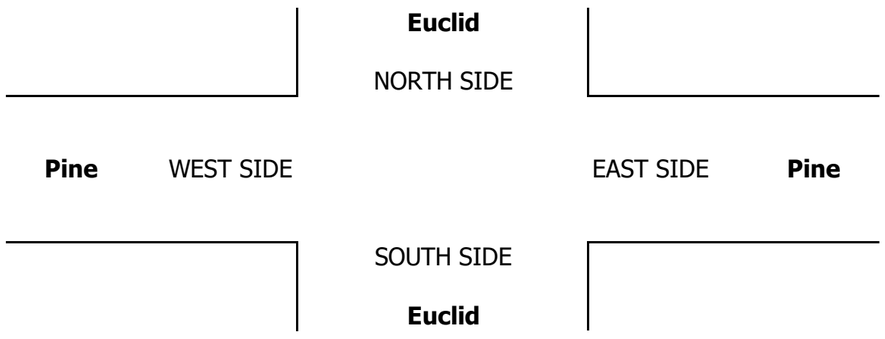
	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Pine			WESTBOUND Pine			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	1	1.5	0.5	1	1	1	2	1	0	
7:00 AM	0	4	11	0	14	0	0	2	1	5	1	2	40
7:15 AM	0	8	3	1	12	3	0	4	1	4	2	1	39
7:30 AM	0	3	9	0	16	0	0	1	3	6	2	0	40
7:45 AM	2	5	13	0	11	0	0	3	1	7	3	0	45
8:00 AM	0	5	5	0	14	0	0	5	3	7	4	0	43
8:15 AM	0	4	7	0	11	0	0	3	2	4	3	0	34
8:30 AM	0	10	10	2	15	0	0	5	3	3	4	1	53
8:45 AM	1	5	4	0	9	0	0	4	0	2	3	2	30
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	3	44	62	3	102	3	0	27	14	38	22	6	324
APPROACH %	3%	40%	57%	3%	94%	3%	0%	66%	34%	58%	33%	9%	
APP/DEPART	109	/	50	108	/	155	41	/	92	66	/	27	0
BEGIN PEAK HR		7:45 AM											
VOLUMES	1	24	35	2	51	0	0	16	9	21	14	1	175
APPROACH %	2%	39%	57%	4%	96%	0%	0%	64%	36%	58%	39%	3%	
PEAK HR FACTOR		0.763			0.779			0.781			0.818		0.825
APP/DEPART	61	/	25	53	/	82	25	/	53	36	/	15	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	10	17	0	2	0	0	5	1	1	1	1	38
4:15 PM	1	12	8	1	4	0	0	3	0	5	0	0	34
4:30 PM	1	18	7	0	3	0	0	3	1	1	1	0	35
4:45 PM	2	8	4	1	4	0	0	6	0	4	1	0	30
5:00 PM	0	8	2	0	9	0	0	3	2	4	1	0	29
5:15 PM	1	12	8	0	3	0	0	3	0	3	0	0	30
5:30 PM	0	6	2	1	2	0	0	3	1	2	0	0	17
5:45 PM	3	6	3	0	1	0	0	2	0	1	1	0	17
VOLUMES	8	80	51	3	28	0	0	28	5	21	5	1	230
APPROACH %	6%	58%	37%	10%	90%	0%	0%	85%	15%	78%	19%	4%	
APP/DEPART	139	/	81	31	/	54	33	/	82	27	/	13	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	4	48	36	2	13	0	0	17	2	11	3	1	137
APPROACH %	5%	55%	41%	13%	87%	0%	0%	89%	11%	73%	20%	7%	
PEAK HR FACTOR		0.815			0.750			0.792			0.750		0.901
APP/DEPART	88	/	49	15	/	26	19	/	55	15	/	7	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	X	0
4	0	0	0
1	1	0	0
5	0	0	0
7	0	0	0
1	0	0	0
3	0	0	0
1	0	0	0
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
23	1	0	0
12	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
16	0	0	0
11	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	19
	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Pine			WESTBOUND Pine			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	1	1.5	0.5	1	1	1	2	1	0	
7:00 AM	1	1	1	1	0	0	0	0	0	1	0	0	5
7:15 AM	0	1	1	0	4	0	0	0	0	0	0	0	6
7:30 AM	1	2	0	0	3	0	0	0	1	2	0	0	9
7:45 AM	0	0	2	1	4	0	0	0	0	7	0	0	14
8:00 AM	0	0	0	0	1	0	0	1	0	1	1	0	4
8:15 AM	0	0	2	0	1	0	0	0	0	0	0	0	3
8:30 AM	0	1	3	0	1	0	0	0	0	2	0	0	7
8:45 AM	0	3	1	0	0	0	0	1	0	0	0	0	5
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	2	8	10	2	14	0	0	2	1	13	1	0	53
APPROACH %	10%	40%	50%	13%	88%	0%	0%	67%	33%	93%	7%	0%	
APP/DEPART	20	/	8	16	/	28	3	/	14	14	/	3	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	2	4	4	2	11	0	0	0	1	10	0	0	34
APPROACH %	20%	40%	40%	15%	85%	0%	0%	0%	100%	100%	0%	0%	
PEAK HR FACTOR		0.833			0.650			0.250			0.357		0.607
APP/DEPART	10	/	4	13	/	22	1	/	6	10	/	2	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	1	0	1	0	0	0	0	0	0	1	3
4:15 PM	0	1	2	0	1	0	0	2	0	0	0	0	6
4:30 PM	0	1	2	0	2	0	0	1	0	0	0	0	6
4:45 PM	0	1	0	0	1	0	0	0	0	1	0	0	3
5:00 PM	0	1	1	0	0	0	0	0	0	0	0	0	2
5:15 PM	1	1	1	0	2	0	0	0	0	0	0	0	5
5:30 PM	1	2	1	0	2	0	0	0	0	0	0	0	6
5:45 PM	0	2	1	0	1	0	0	0	0	0	0	0	4
VOLUMES	2	9	9	0	10	0	0	3	0	1	0	1	35
APPROACH %	10%	45%	45%	0%	100%	0%	0%	100%	0%	50%	0%	50%	
APP/DEPART	20	/	10	10	/	11	3	/	12	2	/	2	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	3	5	0	5	0	0	3	0	1	0	1	18
APPROACH %	0%	38%	63%	0%	100%	0%	0%	100%	0%	50%	0%	50%	
PEAK HR FACTOR		0.667			0.625			0.375			0.500		0.750
APP/DEPART	8	/	4	5	/	6	3	/	8	2	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	19
	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Pine			WESTBOUND Pine			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	1	1.5	0.5	1	1	1	2	1	0	
7:00 AM	1	0	0	0	9	1	0	1	1	0	0	0	13
7:15 AM	1	1	2	0	4	1	0	0	0	0	1	1	11
7:30 AM	2	6	0	1	4	2	0	0	3	1	1	0	20
7:45 AM	0	5	0	0	4	0	0	1	0	3	1	1	15
8:00 AM	1	4	2	0	6	0	0	1	1	2	0	0	17
8:15 AM	4	4	1	1	5	1	1	1	1	0	0	0	19
8:30 AM	4	9	5	1	3	0	1	1	0	3	2	0	29
8:45 AM	2	7	3	0	4	0	0	0	2	1	0	1	20
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	15	36	13	3	39	5	2	5	8	10	5	3	144
APPROACH %	23%	56%	20%	6%	83%	11%	13%	33%	53%	56%	28%	17%	
APP/DEPART	64	/	41	47	/	57	15	/	21	18	/	25	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	11	24	11	2	18	1	2	3	4	6	2	1	85
APPROACH %	24%	52%	24%	10%	86%	5%	22%	33%	44%	67%	22%	11%	
PEAK HR FACTOR		0.639			0.750			0.750			0.450		0.733
APP/DEPART	46	/	27	21	/	28	9	/	16	9	/	14	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	1	0	3	0	3	2	0	0	3	0	0	2	14
4:15 PM	2	3	0	0	6	0	1	2	1	1	0	0	16
4:30 PM	0	2	3	1	3	0	0	2	2	0	0	0	13
4:45 PM	3	6	1	0	6	0	0	0	1	1	0	0	18
5:00 PM	3	3	1	0	4	1	0	0	1	2	0	0	15
5:15 PM	1	2	0	0	4	0	0	0	2	0	0	1	10
5:30 PM	4	4	0	0	7	0	0	0	6	0	0	0	21
5:45 PM	1	5	1	0	4	0	0	0	3	0	0	0	14
VOLUMES	15	25	9	1	37	3	1	4	19	4	0	3	121
APPROACH %	31%	51%	18%	2%	90%	7%	4%	17%	79%	57%	0%	43%	
APP/DEPART	49	/	29	41	/	60	24	/	14	7	/	18	0
BEGIN PEAK HR		4:45 PM											
VOLUMES	11	15	2	0	21	1	0	0	10	3	0	1	64
APPROACH %	39%	54%	7%	0%	95%	5%	0%	0%	100%	75%	0%	25%	
PEAK HR FACTOR		0.700			0.786			0.417			0.500		0.762
APP/DEPART	28	/	16	22	/	34	10	/	2	4	/	12	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	19
	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND (Euclid)			SOUTHBOUND (Euclid)			EASTBOUND (Pine)			WESTBOUND (Pine)			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	1	1.5	0.5	1	1	1	2	1	0	

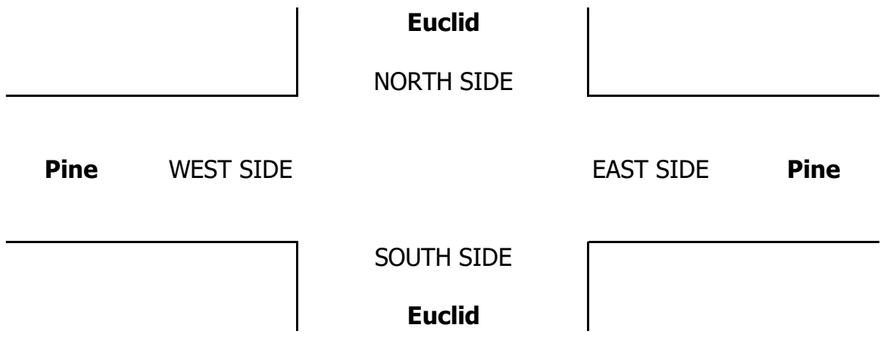
U-TURNS

NB	SB	EB	WB	TTL

RTOR

NRR	SRR	ERR	WRR
0	0	X	0

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS					RTOR			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0									
	BEGIN PEAK HR	7:00 AM																					
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0						0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
	PEAK HR FACTOR	0.000			0.000			0.000			0.000			0.000									
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0									
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
	APP/DEPART	1	/	1	0	/	0	0	/	0	0	/	0	0									
	BEGIN PEAK HR	4:15 PM																					
	VOLUMES	0	1	0	0	0	0	0	0	0	0	0	0	1						0	0	0	0
	APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
	PEAK HR FACTOR	0.250			0.000			0.000			0.000			0.250									
	APP/DEPART	1	/	1	0	/	0	0	/	0	0	/	0	0									



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Euclid	LOCATION #:	19
	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Euclid			SOUTHBOUND Euclid			EASTBOUND Pine			WESTBOUND Pine			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:		1	2	1	1	1.5	0.5	1	1	1	2	1	0	
AM	7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
	7:15 AM	0	2	1	0	0	0	0	1	0	0	0	0	4
	7:30 AM	0	0	0	1	2	0	0	0	0	0	0	0	3
	7:45 AM	0	0	0	0	1	0	0	0	0	3	0	0	4
	8:00 AM	0	0	1	0	1	0	0	1	0	0	0	0	3
	8:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
	8:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	4	3	1	4	0	0	2	0	3	0	0	17
	APPROACH %	0%	57%	43%	20%	80%	0%	0%	100%	0%	100%	0%	0%	
	APP/DEPART	7	/	4	5	/	7	2	/	6	3	/	0	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	2	2	1	4	0	0	2	0	3	0	0	14
	APPROACH %	0%	50%	50%	20%	80%	0%	0%	100%	0%	100%	0%	0%	
	PEAK HR FACTOR		0.333			0.417			0.500			0.250		0.875
	APP/DEPART	4	/	2	5	/	7	2	/	5	3	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	1	0	0	0	0	0	0	1	0	0	0	2
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	1	1	0	0	0	0	0	1	0	0	0	3
	APPROACH %	0%	50%	50%	0%	0%	0%	0%	0%	100%	0%	0%	0%	
	APP/DEPART	2	/	1	0	/	1	1	/	1	0	/	0	0
	BEGIN PEAK HR		3:45 PM											
	VOLUMES	0	1	1	0	0	0	0	0	1	0	0	0	3
	APPROACH %	0%	50%	50%	0%	0%	0%	0%	0%	100%	0%	0%	0%	
	PEAK HR FACTOR		0.500			0.000			0.250			0.000		0.375
	APP/DEPART	2	/	1	0	/	1	1	/	1	0	/	0	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wed, Feb 6, 19

LOCATION: Chino
NORTH & SOUTH: Rincon Meadows
EAST & WEST: Kimball

PROJECT #: SC2081
LOCATION #: 3
CONTROL: SIGNAL

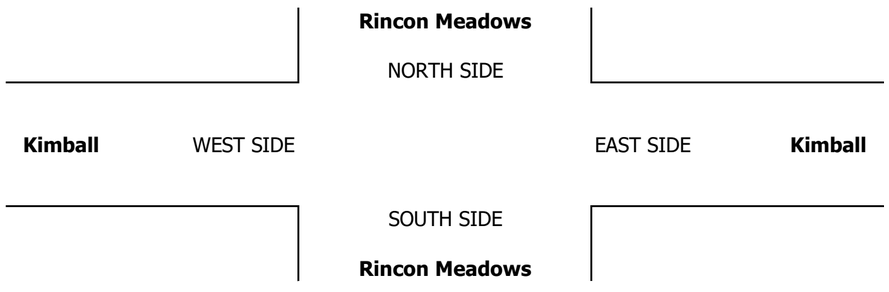
NOTES:

AM PM MD OTHER OTHER

▲ N
◄ W E ►
S ▼

☑ Add U-Turns to Left Turns

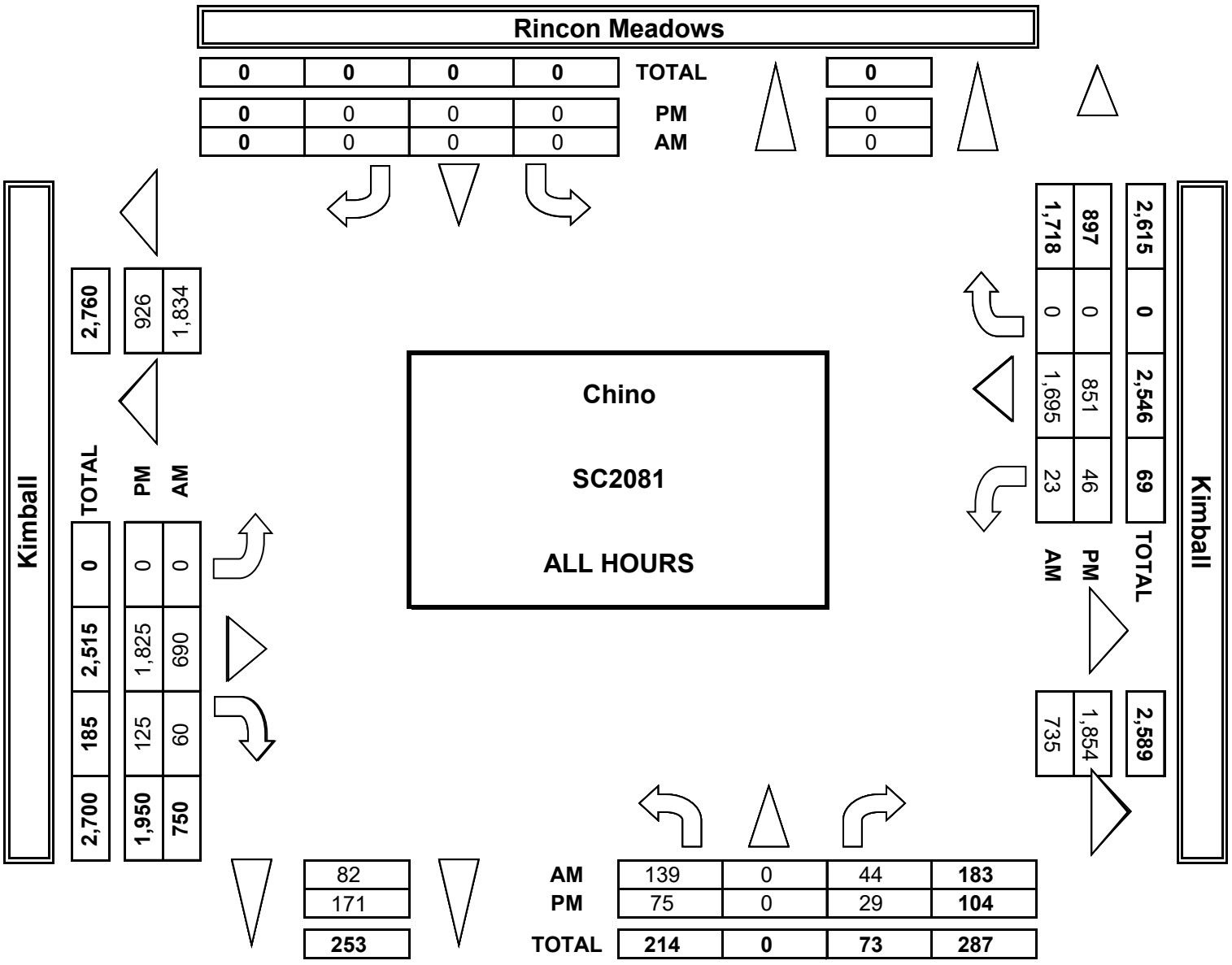
		NORTHBOUND Rincon Meadows			SOUTHBOUND Rincon Meadows			EASTBOUND Kimball			WESTBOUND Kimball				U-TURNS					RTOR			
	LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 1	WT 1	WR X	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL	NRR 0	SRR X	ERR 0	WRR X
AM	7:00 AM	12	0	3	0	0	0	0	68	7	2	242	0	334	0	0	0	0	0	3	0	0	0
	7:15 AM	23	0	7	0	0	0	0	86	5	1	220	0	342	0	0	0	0	0	7	0	1	0
	7:30 AM	22	0	1	0	0	0	0	94	12	2	240	0	371	0	0	0	0	0	1	0	3	0
	7:45 AM	21	0	3	0	0	0	0	74	6	1	239	0	344	0	0	0	0	0	3	0	0	0
	8:00 AM	13	0	13	0	0	0	0	120	4	2	204	0	356	0	0	0	0	0	13	0	1	0
	8:15 AM	17	0	9	0	0	0	0	95	10	7	227	0	365	0	0	0	1	1	8	0	2	0
	8:30 AM	18	0	4	0	0	0	0	75	8	7	160	0	272	0	0	0	0	0	3	0	1	0
	8:45 AM	13	0	4	0	0	0	0	78	8	1	163	0	267	0	0	0	0	0	3	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	139	0	44	0	0	0	0	690	60	23	1,695	0	2,651	0	0	0	1	1	41	0	8	0
	APPROACH %	76%	0%	24%	0%	0%	0%	0%	92%	8%	1%	99%	0%										
	APP/DEPART	183	/	0	0	/	82	750	/	735	1,718	/	1,834	0									
	BEGIN PEAK HR		7:30 AM																				
	VOLUMES	73	0	26	0	0	0	0	383	32	12	910	0	1,436						25	0	6	0
	APPROACH %	74%	0%	26%	0%	0%	0%	0%	92%	8%	1%	99%	0%										
	PEAK HR FACTOR		0.952			0.000			0.837			0.952		0.968									
	APP/DEPART	99	/	0	0	/	43	415	/	410	922	/	983	0									
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	15	0	2	0	0	0	0	181	8	4	88	0	298	0	0	0	0	0	0	0	0	0
	4:15 PM	5	0	3	0	0	0	0	185	11	5	108	0	317	0	0	0	0	0	2	0	0	0
	4:30 PM	9	0	1	0	0	0	0	241	16	3	125	0	395	0	0	0	0	0	0	0	1	0
	4:45 PM	7	0	6	0	0	0	0	240	18	5	103	0	379	0	0	0	0	0	4	0	0	0
	5:00 PM	10	0	2	0	0	0	0	243	11	8	122	0	396	0	0	0	0	0	1	0	1	0
	5:15 PM	12	0	5	0	0	0	0	230	12	10	101	0	370	0	0	0	0	0	4	0	2	0
	5:30 PM	8	0	6	0	0	0	0	246	23	4	104	0	391	0	0	0	0	0	1	0	1	0
	5:45 PM	9	0	4	0	0	0	0	259	26	7	100	0	405	0	0	0	0	0	4	0	4	0
	VOLUMES	75	0	29	0	0	0	0	1,825	125	46	851	0	2,951	0	0	0	0	0	16	0	9	0
	APPROACH %	72%	0%	28%	0%	0%	0%	0%	94%	6%	5%	95%	0%										
	APP/DEPART	104	/	0	0	/	171	1,950	/	1,854	897	/	926	0									
	BEGIN PEAK HR		5:00 PM																				
	VOLUMES	39	0	17	0	0	0	0	978	72	29	427	0	1,562						10	0	8	0
	APPROACH %	70%	0%	30%	0%	0%	0%	0%	93%	7%	6%	94%	0%										
	PEAK HR FACTOR		0.824			0.000			0.921			0.877		0.964									
	APP/DEPART	56	/	0	0	/	101	1,050	/	995	456	/	466	0									

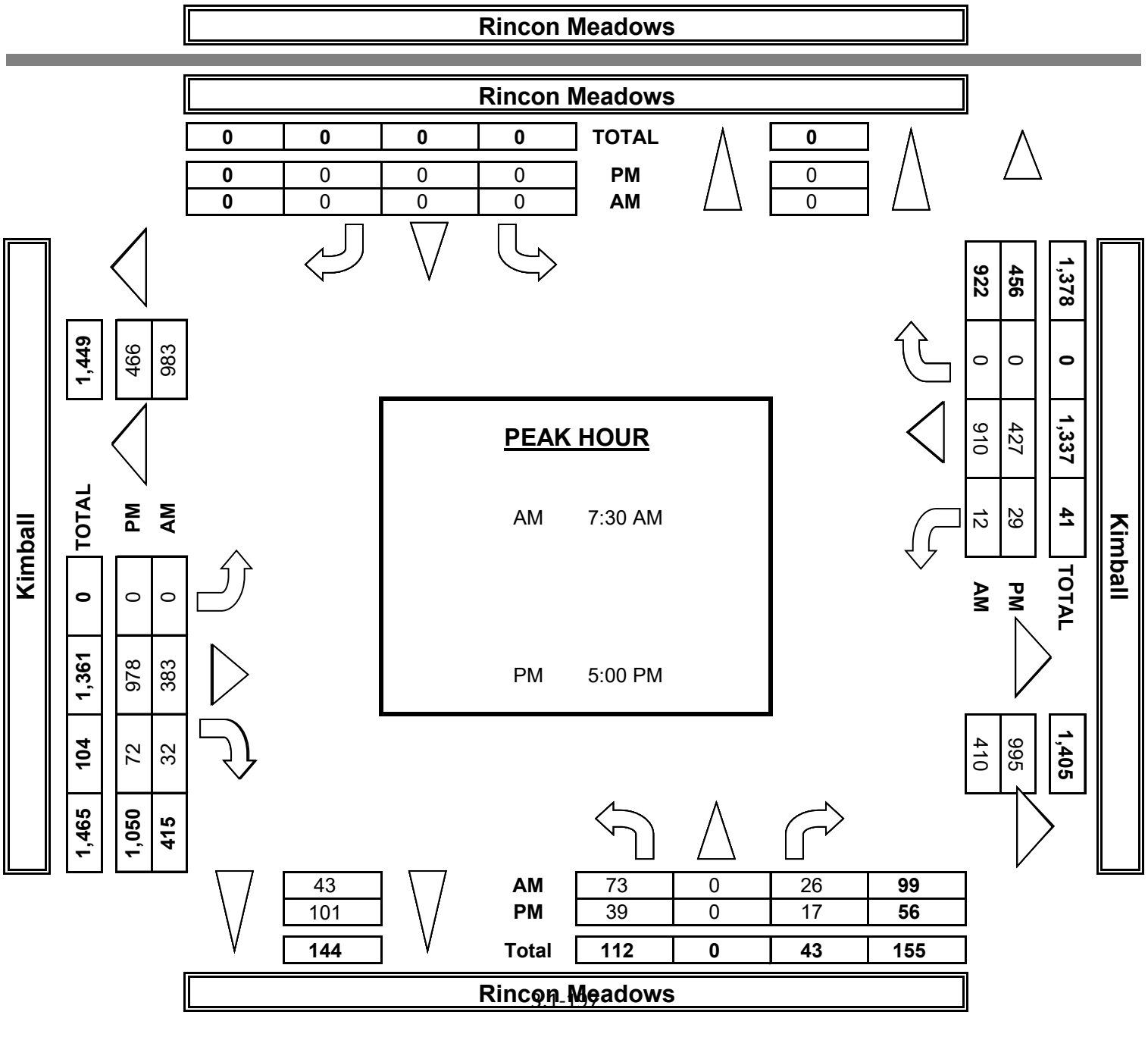


		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	2	0	2	0	0	2	0	2	0	0	0	0	0
	8:45 AM	0	1	0	1	2	0	1	0	0	1	0	0	0	1	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	1	2	1	4	0	1	2	0	3	0	0	0	1	1
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	1	1	2	0	0	0	0	0	0	0	1	1	2

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
2/6/19	LOCATION:	Chino	PROJECT #:	SC2081
WEDNESDAY	NORTH & SOUTH:	Rincon Meadows	LOCATION #:	3
	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

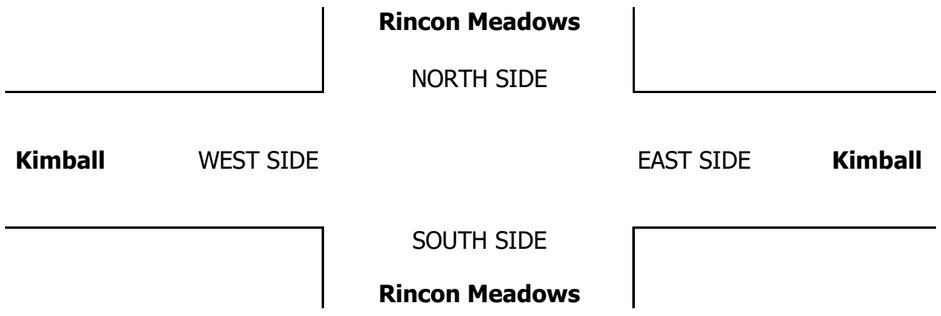
		NORTHBOUND Rincon Meadows			SOUTHBOUND Rincon Meadows			EASTBOUND Kimball			WESTBOUND Kimball			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:		1	X	1	X	X	X	X	2	0	1	1	X	
AM	7:00 AM	11	0	3	0	0	0	0	61	5	1	234	0	315
	7:15 AM	22	0	5	0	0	0	0	75	5	1	216	0	324
	7:30 AM	22	0	1	0	0	0	0	87	10	0	229	0	349
	7:45 AM	21	0	2	0	0	0	0	67	5	0	230	0	325
	8:00 AM	13	0	11	0	0	0	0	115	3	1	198	0	341
	8:15 AM	14	0	9	0	0	0	0	82	8	7	222	0	342
	8:30 AM	16	0	4	0	0	0	0	64	7	6	154	0	251
	8:45 AM	13	0	4	0	0	0	0	74	7	1	159	0	258
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	132	0	39	0	0	0	0	625	50	17	1,642	0	2,505
	APPROACH %	77%	0%	23%	0%	0%	0%	0%	93%	7%	1%	99%	0%	
	APP/DEPART	171	/	0	0	/	66	675	/	665	1,659	/	1,774	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	70	0	23	0	0	0	0	351	26	7	879	0	1,357
	APPROACH %	75%	0%	25%	0%	0%	0%	0%	93%	7%	1%	99%	0%	
	PEAK HR FACTOR		0.969			0.000			0.799			0.964		0.972
	APP/DEPART	93	/	0	0	/	33	377	/	375	887	/	949	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	15	0	2	0	0	0	0	174	8	4	81	0	284
	4:15 PM	5	0	3	0	0	0	0	173	11	5	99	0	296
	4:30 PM	9	0	0	0	0	0	0	235	15	2	120	0	381
	4:45 PM	7	0	5	0	0	0	0	232	18	4	96	0	362
	5:00 PM	10	0	2	0	0	0	0	232	11	8	115	0	378
	5:15 PM	12	0	5	0	0	0	0	221	12	10	95	0	355
	5:30 PM	8	0	4	0	0	0	0	238	23	4	98	0	375
	5:45 PM	8	0	4	0	0	0	0	253	25	7	98	0	395
	VOLUMES	74	0	25	0	0	0	0	1,758	123	44	802	0	2,826
	APPROACH %	75%	0%	25%	0%	0%	0%	0%	93%	7%	5%	95%	0%	
	APP/DEPART	99	/	0	0	/	167	1,881	/	1,783	846	/	876	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	38	0	15	0	0	0	0	944	71	29	406	0	1,503
	APPROACH %	72%	0%	28%	0%	0%	0%	0%	93%	7%	7%	93%	0%	
	PEAK HR FACTOR		0.779			0.000			0.913			0.884		0.951
	APP/DEPART	53	/	0	0	/	100	1,015	/	959	435	/	444	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	X	0	X
3	0	0	0
5	0	1	0
1	0	3	0
2	0	0	0
11	0	0	0
8	0	1	0
3	0	1	0
3	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
36	0	6	0
22	0	4	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
2	0	0	0
0	0	1	0
3	0	0	0
1	0	1	0
4	0	2	0
1	0	1	0
4	0	4	0
15	0	9	0
10	0	8	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
2/6/19	LOCATION:	Chino	PROJECT #:	SC2081
WEDNESDAY	NORTH & SOUTH:	Rincon Meadows	LOCATION #:	3
	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 2:	NOTES:
2-AXLE WORK VEHICLES/ TRUCKS	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Rincon Meadows			SOUTHBOUND Rincon Meadows			EASTBOUND Kimball			WESTBOUND Kimball			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:		1	X	1	X	X	X	X	2	0	1	1	X	
AM	7:00 AM	1	0	0	0	0	0	0	6	2	0	3	0	12
	7:15 AM	1	0	2	0	0	0	0	6	0	0	3	0	12
	7:30 AM	0	0	0	0	0	0	0	3	1	2	5	0	11
	7:45 AM	0	0	1	0	0	0	0	3	1	1	6	0	12
	8:00 AM	0	0	2	0	0	0	0	4	1	1	5	0	13
	8:15 AM	3	0	0	0	0	0	0	13	2	0	2	0	20
	8:30 AM	2	0	0	0	0	0	0	5	1	1	4	0	13
	8:45 AM	0	0	0	0	0	0	0	3	1	0	2	0	6
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	7	0	5	0	0	0	0	43	9	5	30	0	99
	APPROACH %	58%	0%	42%	0%	0%	0%	0%	83%	17%	14%	86%	0%	
	APP/DEPART	12	/	0	0	/	14	52	/	48	35	/	37	0
	BEGIN PEAK HR	7:45 AM												
	VOLUMES	5	0	3	0	0	0	0	25	5	3	17	0	58
	APPROACH %	63%	0%	38%	0%	0%	0%	0%	83%	17%	15%	85%	0%	
	PEAK HR FACTOR	0.667			0.000			0.500			0.714			0.725
	APP/DEPART	8	/	0	0	/	8	30	/	28	20	/	22	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	4	0	0	4	0	8
	4:15 PM	0	0	0	0	0	0	0	9	0	0	5	0	14
	4:30 PM	0	0	1	0	0	0	0	4	1	1	4	0	11
	4:45 PM	0	0	1	0	0	0	0	8	0	1	3	0	13
	5:00 PM	0	0	0	0	0	0	0	9	0	0	3	0	12
	5:15 PM	0	0	0	0	0	0	0	7	0	0	1	0	8
	5:30 PM	0	0	2	0	0	0	0	4	0	0	3	0	9
	5:45 PM	1	0	0	0	0	0	0	5	1	0	2	0	9
	VOLUMES	1	0	4	0	0	0	0	50	2	2	25	0	84
	APPROACH %	20%	0%	80%	0%	0%	0%	0%	96%	4%	7%	93%	0%	
	APP/DEPART	5	/	0	0	/	4	52	/	54	27	/	26	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	0	0	2	0	0	0	0	30	1	2	15	0	50
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	97%	3%	12%	88%	0%	
	PEAK HR FACTOR	0.500			0.000			0.861			0.850			0.893
	APP/DEPART	2	/	0	0	/	3	31	/	32	17	/	15	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
2/6/19	LOCATION:	Chino	PROJECT #:	SC2081
WEDNESDAY	NORTH & SOUTH:	Rincon Meadows	LOCATION #:	3
	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Rincon Meadows			SOUTHBOUND Rincon Meadows			EASTBOUND Kimball			WESTBOUND Kimball			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:		1	X	1	X	X	X	X	2	0	1	1	X	
AM	7:00 AM	0	0	0	0	0	0	0	1	0	0	3	0	4
	7:15 AM	0	0	0	0	0	0	0	2	0	0	1	0	3
	7:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	2
	7:45 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	6	0	0	7	0	13
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	0	6	/	6	7	/	7	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	4	0	0	7	0	11
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.500			0.583		0.688
	APP/DEPART	0	/	0	0	/	0	4	/	4	7	/	7	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
	4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	1	0	0	2	0	3
	5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:30 PM	0	0	0	0	0	0	0	1	0	0	2	0	3
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	4	0	0	6	0	10
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	0	4	/	4	6	/	6	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	0	0	0	0	0	0	0	3	0	0	4	0	7
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.750			0.500		0.583
	APP/DEPART	0	/	0	0	/	0	3	/	3	4	/	4	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
2/6/19	LOCATION:	Chino	PROJECT #:	SC2081
WEDNESDAY	NORTH & SOUTH:	Rincon Meadows	LOCATION #:	3
	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Rincon Meadows			SOUTHBOUND Rincon Meadows			EASTBOUND Kimball			WESTBOUND Kimball			
LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 1	WT 1	WR X	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	1	2	0	3
7:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	3	0	0	2	0	5
7:45 AM	0	0	0	0	0	0	0	2	0	0	1	0	3
8:00 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	3	0	3
8:30 AM	0	0	0	0	0	0	0	5	0	0	1	0	6
8:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	2
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	12	0	1	12	0	25
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	8%	92%	0%	
APP/DEPART	0	/	0	0	/	1	12	/	12	13	/	12	0
BEGIN PEAK HR	7:45 AM												
VOLUMES	0	0	0	0	0	0	0	8	0	0	6	0	14
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR	0.000			0.000			0.400			0.500			0.583
APP/DEPART	0	/	0	0	/	0	8	/	8	6	/	6	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	3	0	0	2	0	5
4:15 PM	0	0	0	0	0	0	0	2	0	0	2	0	4
4:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	4	0	4
5:00 PM	0	0	0	0	0	0	0	1	0	0	2	0	3
5:15 PM	0	0	0	0	0	0	0	1	0	0	5	0	6
5:30 PM	0	0	0	0	0	0	0	3	0	0	1	0	4
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
VOLUMES	0	0	0	0	0	0	0	13	0	0	16	0	29
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
APP/DEPART	0	/	0	0	/	0	13	/	13	16	/	16	0
BEGIN PEAK HR	4:45 PM												
VOLUMES	0	0	0	0	0	0	0	5	0	0	12	0	17
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR	0.000			0.000			0.417			0.600			0.708
APP/DEPART	0	/	0	0	/	0	5	/	5	12	/	12	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
2/6/19	LOCATION:	Chino	PROJECT #:	SC2081
WEDNESDAY	NORTH & SOUTH:	Rincon Meadows	LOCATION #:	3
	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Rincon Meadows			SOUTHBOUND Rincon Meadows			EASTBOUND Kimball			WESTBOUND Kimball			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	X	1	X	X	X	X	2	0	1	1	X	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR	7:00 AM												
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR	0.000			0.000			0.000			0.000			0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR	3:00 PM												
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR	0.000			0.000			0.000			0.000			0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
2/6/19	LOCATION:	Chino	PROJECT #:	SC2081
WEDNESDAY	NORTH & SOUTH:	Rincon Meadows	LOCATION #:	3
	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Rincon Meadows			SOUTHBOUND Rincon Meadows			EASTBOUND Kimball			WESTBOUND Kimball			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	X	1	X	X	X	X	2	0	1	1	X	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
7:30 AM	0	0	0	0	0	0	0	1	1	0	2	0	4
7:45 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	4	1	0	4	0	9
APPROACH %	0%	0%	0%	0%	0%	0%	0%	80%	20%	0%	100%	0%	
APP/DEPART	0	/	0	0	/	1	5	/	4	4	/	4	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	0	0	0	0	0	0	4	1	0	3	0	8
APPROACH %	0%	0%	0%	0%	0%	0%	0%	80%	20%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.000			0.625			0.375		0.500
APP/DEPART	0	/	0	0	/	1	5	/	4	3	/	3	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	2	0	2
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	2	/	2	0
BEGIN PEAK HR		3:30 PM											
VOLUMES	0	0	0	0	0	0	0	0	0	0	2	0	2
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.000			0.000			0.500		0.500
APP/DEPART	0	/	0	0	/	0	0	/	0	2	/	2	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wed, Feb 6, 19

LOCATION: Chino
NORTH & SOUTH: Mill Creek
EAST & WEST: Kimball

PROJECT #: SC2081
LOCATION #: 4
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W E ►
S ▼

☑ Add U-Turns to Left Turns

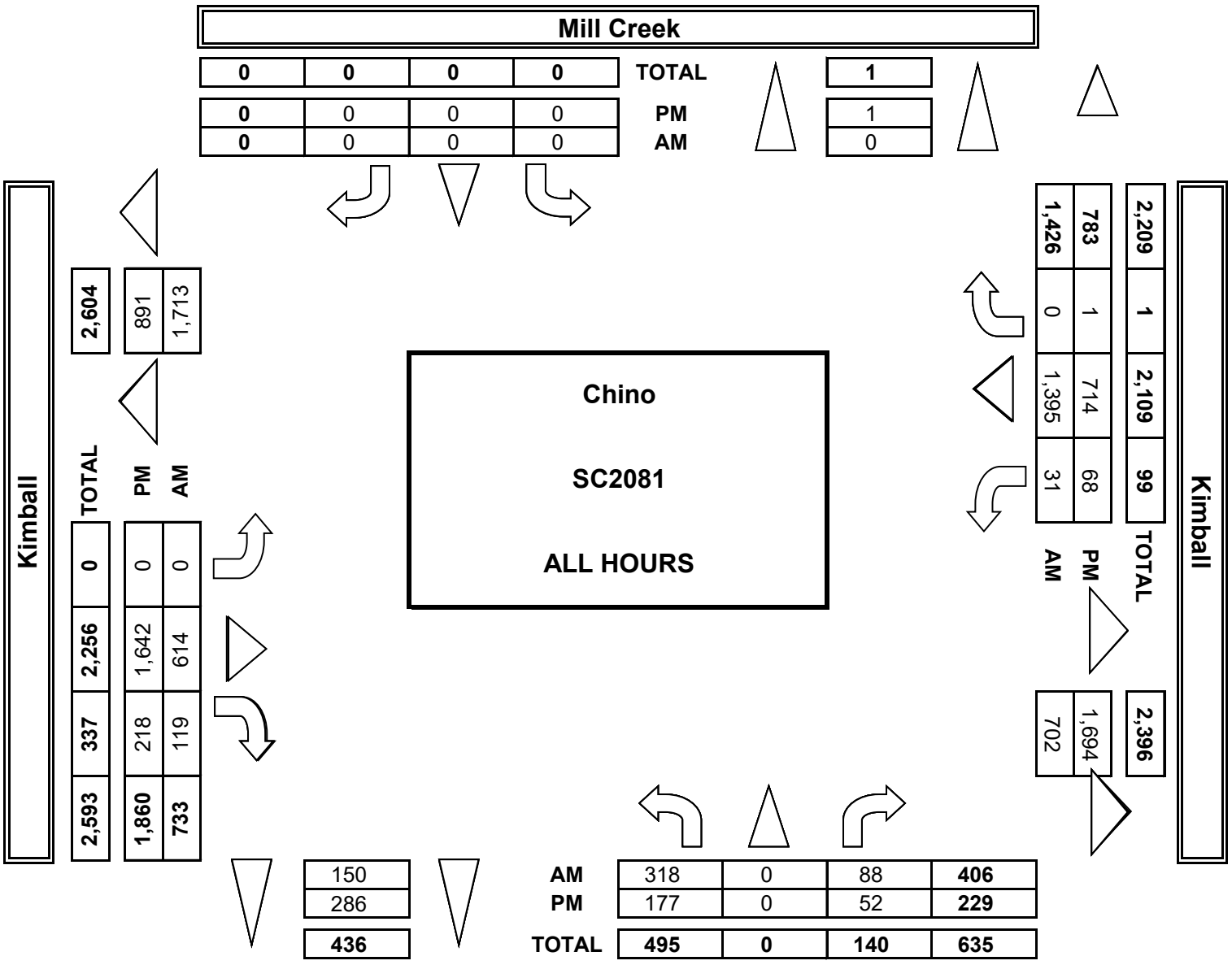
		NORTHBOUND Mill Creek			SOUTHBOUND Mill Creek			EASTBOUND Kimball			WESTBOUND Kimball			
	LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 1	WT 1	WR X	TOTAL
AM	7:00 AM	34	0	8	0	0	0	0	61	8	2	199	0	312
	7:15 AM	42	0	9	0	0	0	0	72	11	3	190	0	327
	7:30 AM	48	0	14	0	0	0	0	82	16	6	216	0	382
	7:45 AM	44	0	10	0	0	0	0	67	10	4	208	0	343
	8:00 AM	39	0	16	0	0	0	0	102	23	3	161	0	344
	8:15 AM	44	0	14	0	0	0	0	88	21	5	158	0	330
	8:30 AM	38	0	11	0	0	0	0	68	14	5	128	0	264
	8:45 AM	29	0	6	0	0	0	0	74	16	3	135	0	263
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	318	0	88	0	0	0	0	614	119	31	1,395	0	2,565
	APPROACH %	78%	0%	22%	0%	0%	0%	0%	84%	16%	2%	98%	0%	
	APP/DEPART	406	/	0	0	/	150	733	/	702	1,426	/	1,713	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	175	0	54	0	0	0	0	339	70	18	743	0	1,399
	APPROACH %	76%	0%	24%	0%	0%	0%	0%	83%	17%	2%	98%	0%	
	PEAK HR FACTOR		0.923			0.000			0.818			0.857		0.916
	APP/DEPART	229	/	0	0	/	88	409	/	393	761	/	918	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	19	0	12	0	0	0	0	146	25	8	75	0	285
	4:15 PM	30	0	7	0	0	0	0	175	25	7	79	0	323
	4:30 PM	20	0	7	0	0	0	0	207	29	8	103	1	375
	4:45 PM	21	0	7	0	0	0	0	225	24	4	95	0	376
	5:00 PM	25	0	4	0	0	0	0	220	28	10	103	0	390
	5:15 PM	19	0	5	0	0	0	0	210	24	11	86	0	355
	5:30 PM	18	0	5	0	0	0	0	230	33	7	89	0	382
	5:45 PM	25	0	5	0	0	0	0	229	30	13	84	0	386
	VOLUMES	177	0	52	0	0	0	0	1,642	218	68	714	1	2,872
	APPROACH %	77%	0%	23%	0%	0%	0%	0%	88%	12%	9%	91%	0%	
	APP/DEPART	229	/	1	0	/	286	1,860	/	1,694	783	/	891	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	87	0	19	0	0	0	0	889	115	41	362	0	1,513
	APPROACH %	82%	0%	18%	0%	0%	0%	0%	89%	11%	10%	90%	0%	
	PEAK HR FACTOR		0.883			0.000			0.954			0.892		0.970
	APP/DEPART	106	/	0	0	/	156	1,004	/	908	403	/	449	0

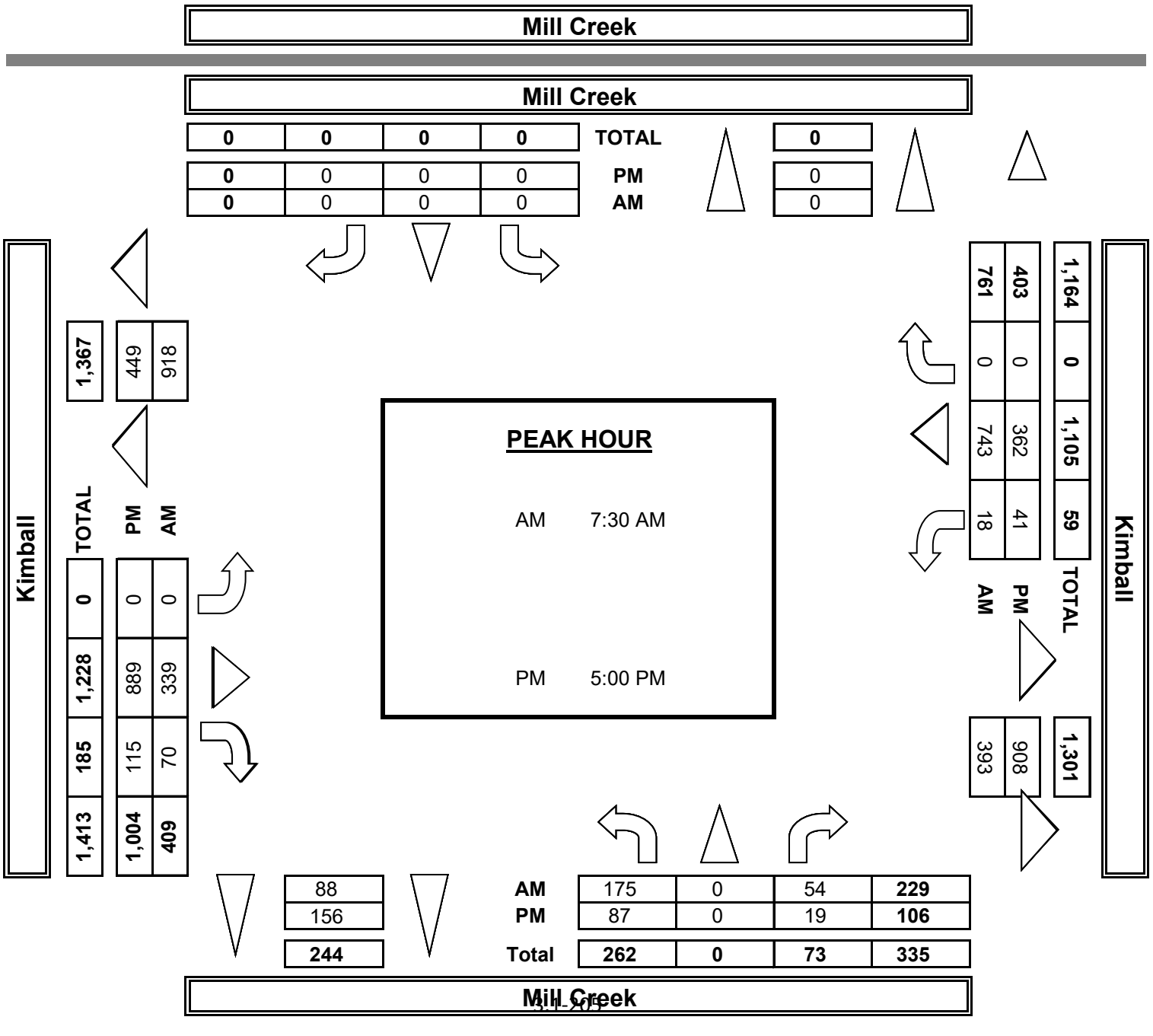
U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
2/6/19	LOCATION:	Chino	PROJECT #:	SC2081
WEDNESDAY	NORTH & SOUTH:	Mill Creek	LOCATION #:	4
	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Mill Creek			SOUTHBOUND Mill Creek			EASTBOUND Kimball			WESTBOUND Kimball			
LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 1	WT 1	WR X	TOTAL
7:00 AM	33	0	8	0	0	0	0	53	8	1	194	0	297
7:15 AM	41	0	8	0	0	0	0	59	10	2	185	0	305
7:30 AM	46	0	13	0	0	0	0	76	15	4	203	0	357
7:45 AM	43	0	10	0	0	0	0	62	10	3	199	0	327
8:00 AM	38	0	15	0	0	0	0	96	23	2	156	0	330
8:15 AM	43	0	14	0	0	0	0	73	20	4	152	0	306
8:30 AM	37	0	11	0	0	0	0	61	13	4	123	0	249
8:45 AM	29	0	5	0	0	0	0	69	15	3	131	0	252
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	310	0	84	0	0	0	0	549	114	23	1,343	0	2,423
APPROACH %	79%	0%	21%	0%	0%	0%	0%	83%	17%	2%	98%	0%	
APP/DEPART	394	/	0	0	/	137	663	/	633	1,366	/	1,653	0
BEGIN PEAK HR	7:30 AM												
VOLUMES	170	0	52	0	0	0	0	307	68	13	710	0	1,320
APPROACH %	77%	0%	23%	0%	0%	0%	0%	82%	18%	2%	98%	0%	
PEAK HR FACTOR	0.941			0.000			0.788			0.873			0.924
APP/DEPART	222	/	0	0	/	81	375	/	359	723	/	880	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	19	0	9	0	0	0	0	140	25	8	69	0	270
4:15 PM	29	0	6	0	0	0	0	165	23	6	71	0	300
4:30 PM	19	0	7	0	0	0	0	201	28	7	98	0	360
4:45 PM	18	0	6	0	0	0	0	216	23	4	88	0	355
5:00 PM	23	0	4	0	0	0	0	212	27	8	98	0	372
5:15 PM	18	0	5	0	0	0	0	204	21	11	80	0	339
5:30 PM	18	0	5	0	0	0	0	222	33	7	86	0	371
5:45 PM	24	0	4	0	0	0	0	221	30	11	81	0	371
VOLUMES	168	0	46	0	0	0	0	1,581	210	62	671	0	2,738
APPROACH %	79%	0%	21%	0%	0%	0%	0%	88%	12%	8%	92%	0%	
APP/DEPART	214	/	0	0	/	272	1,791	/	1,627	733	/	839	0
BEGIN PEAK HR	5:00 PM												
VOLUMES	83	0	18	0	0	0	0	859	111	37	345	0	1,453
APPROACH %	82%	0%	18%	0%	0%	0%	0%	89%	11%	10%	90%	0%	
PEAK HR FACTOR	0.902			0.000			0.951			0.901			0.976
APP/DEPART	101	/	0	0	/	148	970	/	877	382	/	428	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
2/6/19	LOCATION:	Chino	PROJECT #:	SC2081
WEDNESDAY	NORTH & SOUTH:	Mill Creek	LOCATION #:	4
	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 2:	NOTES:
2-AXLE WORK VEHICLES/ TRUCKS	

AM / PM / MD / OTHER / OTHER

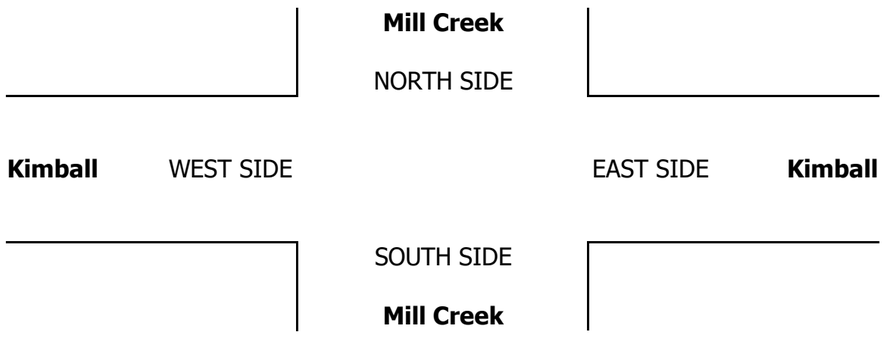
▲ N ◄ W E ► S ▼

	NORTHBOUND Mill Creek			SOUTHBOUND Mill Creek			EASTBOUND Kimball			WESTBOUND Kimball			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	X	1	X	X	X	X	2	0	1	1	X	

U-TURNS				
NB	SB	EB	WB	TTL

RTOR			
NRR	SRR	ERR	WRR
0	X	0	X

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS					RTOR			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
AM	7:00 AM	0	0	0	0	0	0	0	6	0	1	2	0	9	0	0	0	0	0	0	0	0	0
	7:15 AM	1	0	1	0	0	0	0	8	1	1	3	0	15	0	0	0	0	0	1	0	0	0
	7:30 AM	2	0	1	0	0	0	0	3	1	2	7	0	16	0	0	0	0	0	0	0	0	0
	7:45 AM	1	0	0	0	0	0	0	2	0	1	5	0	9	0	0	0	0	0	0	0	0	0
	8:00 AM	1	0	1	0	0	0	0	4	0	1	4	0	11	0	0	0	0	0	1	0	0	0
	8:15 AM	1	0	0	0	0	0	0	12	1	1	3	0	18	0	0	0	0	0	0	0	0	0
	8:30 AM	1	0	0	0	0	0	0	5	1	1	4	0	12	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	3	1	0	2	0	6	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	7	0	3	0	0	0	0	43	5	8	30	0	96	0	0	0	0	0	2	0	0	0
	APPROACH %	70%	0%	30%	0%	0%	0%	0%	90%	10%	21%	79%	0%										
	APP/DEPART	10	/	0	0	/	13	48	/	46	38	/	37	0									
	BEGIN PEAK HR		7:30 AM																				
	VOLUMES	5	0	2	0	0	0	0	21	2	5	19	0	54						1	0	0	0
	APPROACH %	71%	0%	29%	0%	0%	0%	0%	91%	9%	21%	79%	0%										
	PEAK HR FACTOR		0.583			0.000			0.442			0.667		0.750									
	APP/DEPART	7	/	0	0	/	7	23	/	23	24	/	24	0									
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	3	0	0	0	0	3	0	0	3	0	9	0	0	0	0	0	2	0	0	0
	4:15 PM	1	0	1	0	0	0	0	7	2	1	4	0	16	0	0	0	0	0	0	0	1	0
	4:30 PM	1	0	0	0	0	0	0	4	1	0	4	0	10	0	0	0	0	0	0	0	0	0
	4:45 PM	3	0	1	0	0	0	0	9	1	0	3	0	17	0	0	0	0	0	0	0	0	0
	5:00 PM	2	0	0	0	0	0	0	6	1	2	1	0	12	0	0	0	0	0	0	0	1	0
	5:15 PM	1	0	0	0	0	0	0	5	3	0	1	0	10	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	3	0	0	1	0	4	0	0	0	0	0	0	0	0	0
	5:45 PM	1	0	1	0	0	0	0	7	0	2	2	0	13	0	0	0	0	0	1	0	0	0
	VOLUMES	9	0	6	0	0	0	0	44	8	5	19	0	91	0	0	0	0	0	3	0	2	0
	APPROACH %	60%	0%	40%	0%	0%	0%	0%	85%	15%	21%	79%	0%										
	APP/DEPART	15	/	0	0	/	13	52	/	50	24	/	28	0									
	BEGIN PEAK HR		4:15 PM																				
	VOLUMES	7	0	2	0	0	0	0	26	5	3	12	0	55						0	0	2	0
	APPROACH %	78%	0%	22%	0%	0%	0%	0%	84%	16%	20%	80%	0%										
	PEAK HR FACTOR		0.563			0.000			0.775			0.750		0.809									
	APP/DEPART	9	/	0	0	/	8	31	/	28	15	/	19	0									



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
2/6/19	LOCATION:	Chino	PROJECT #:	SC2081
WEDNESDAY	NORTH & SOUTH:	Mill Creek	LOCATION #:	4
	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Mill Creek			SOUTHBOUND Mill Creek			EASTBOUND Kimball			WESTBOUND Kimball			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	X	1	X	X	X	X	2	0	1	1	X	
AM													
7:00 AM	1	0	0	0	0	0	0	1	0	0	1	0	3
7:15 AM	0	0	0	0	0	0	0	2	0	0	1	0	3
7:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	2
7:45 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	1	0	0	0	0	0	0	6	0	0	5	0	12
APPROACH %	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
APP/DEPART	1	/	0	0	/	0	6	/	6	5	/	6	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	1	0	0	0	0	0	0	4	0	0	5	0	10
APPROACH %	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR		0.250			0.000			0.500			0.625		0.833
APP/DEPART	1	/	0	0	/	0	4	/	4	5	/	6	0
PM													
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	1	0	0	2	0	3
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
5:30 PM	0	0	0	0	0	0	0	2	0	0	1	0	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
VOLUMES	0	0	0	0	0	0	0	4	0	0	7	0	11
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
APP/DEPART	0	/	0	0	/	0	4	/	4	7	/	7	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	0	0	0	0	0	0	0	3	0	0	5	0	8
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.000			0.375			0.625		0.667
APP/DEPART	0	/	0	0	/	0	3	/	3	5	/	5	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
2/6/19	LOCATION:	Chino	PROJECT #:	SC2081
WEDNESDAY	NORTH & SOUTH:	Mill Creek	LOCATION #:	4
	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

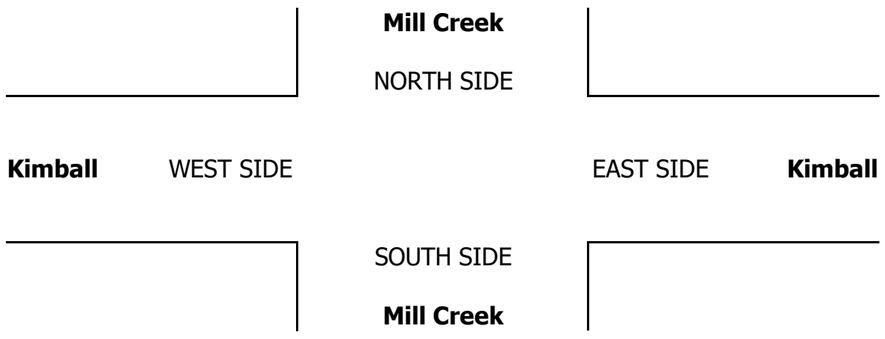
▲ N ◄ W E ► S ▼

	NORTHBOUND Mill Creek			SOUTHBOUND Mill Creek			EASTBOUND Kimball			WESTBOUND Kimball			
LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 1	WT 1	WR X	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL

RTOR			
NRR	SRR	ERR	WRR
0	X	0	X

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS					RTOR			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
AM	7:00 AM	0	0	0	0	0	0	0	1	0	0	2	0	3	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	2	0	0	2	0	4	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	1	0	0	2	0	3	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	2	0	0	1	0	3	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	2	0	0	2	0	4	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	1	0	0	0	0	2	0	0	2	0	5	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	1	0	0	0	0	12	0	0	13	0	26	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%	100%	0%										
	APP/DEPART	1	/	0	0	/	0	12	/	13	13	/	13	0									
	BEGIN PEAK HR	7:30 AM																					
	VOLUMES	0	0	1	0	0	0	0	7	0	0	6	0	14						0	0	0	0
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%	100%	0%										
	PEAK HR FACTOR	0.250			0.000			0.875			0.750			0.700									
	APP/DEPART	1	/	0	0	/	0	7	/	8	6	/	6	0									
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	3	0	0	2	0	5	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	2	0	0	2	0	4	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	2	0	1	0	1	4	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	1	0	0	2	0	3	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	1	0	0	4	0	5	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	3	0	0	1	0	4	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	13	0	1	15	1	30	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	6%	88%	6%										
	APP/DEPART	0	/	1	0	/	1	13	/	13	17	/	15	0									
	BEGIN PEAK HR	4:00 PM																					
	VOLUMES	0	0	0	0	0	0	0	7	0	1	8	1	17						0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	10%	80%	10%										
	PEAK HR FACTOR	0.000			0.000			0.583			0.625			0.850									
	APP/DEPART	0	/	1	0	/	1	7	/	7	10	/	8	0									



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
2/6/19	LOCATION:	Chino	PROJECT #:	SC2081
WEDNESDAY	NORTH & SOUTH:	Mill Creek	LOCATION #:	4
	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 5:
RV

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

	NORTHBOUND Mill Creek			SOUTHBOUND Mill Creek			EASTBOUND Kimball			WESTBOUND Kimball			
LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 1	WT 1	WR X	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR	7:00 AM												
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR	0.000			0.000			0.000			0.000			0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR	3:00 PM												
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR	0.000			0.000			0.000			0.000			0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
2/6/19	LOCATION:	Chino	PROJECT #:	SC2081
WEDNESDAY	NORTH & SOUTH:	Mill Creek	LOCATION #:	4
	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Mill Creek			SOUTHBOUND Mill Creek			EASTBOUND Kimball			WESTBOUND Kimball			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	LANES:	1	X	1	X	X	X	X	2	0	1	1	X	
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
	7:30 AM	0	0	0	0	0	0	0	1	0	0	2	0	3
	7:45 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	4	0	0	4	0	8
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	0	4	/	4	4	/	4	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	4	0	0	3	0	7
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.500			0.375		0.583
	APP/DEPART	0	/	0	0	/	0	4	/	4	3	/	3	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	2	0	2
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	2	/	2	0
	BEGIN PEAK HR		3:30 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	2	0	2
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.500		0.500
	APP/DEPART	0	/	0	0	/	0	0	/	0	2	/	2	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wed, Jan 30, 19

LOCATION: Chino
NORTH & SOUTH: Chino Corona
EAST & WEST: Pine

PROJECT #: SC2056
LOCATION #: 26
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

N
W
E
S

☑ Add U-Turns to Left Turns

		NORTHBOUND Chino Corona			SOUTHBOUND Chino Corona			EASTBOUND Pine			WESTBOUND Pine			
	LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 0	EL 1	ET 2	ER 1	WL 1	WT 1	WR 1	TOTAL
AM	7:00 AM	14	3	2	4	8	16	6	125	12	14	294	47	545
	7:15 AM	7	1	3	7	6	6	5	147	10	15	272	16	495
	7:30 AM	9	3	2	6	7	14	10	202	11	8	274	24	570
	7:45 AM	7	2	0	6	9	6	8	177	15	18	275	26	549
	8:00 AM	4	2	0	3	6	6	3	180	6	8	281	17	516
	8:15 AM	8	1	2	7	2	7	4	182	7	9	257	17	503
	8:30 AM	7	3	4	7	2	5	3	138	9	6	256	17	457
	8:45 AM	8	0	2	3	1	6	3	132	8	7	269	11	450
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	64	15	15	43	41	66	42	1,283	78	85	2,178	175	4,085
	APPROACH %	68%	16%	16%	29%	27%	44%	3%	91%	6%	3%	89%	7%	
	APP/DEPART	94	/	231	150	/	202	1,403	/	1,343	2,438	/	2,309	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	37	9	7	23	30	42	29	651	48	55	1,115	113	2,159
	APPROACH %	70%	17%	13%	24%	32%	44%	4%	89%	7%	4%	87%	9%	
	PEAK HR FACTOR		0.697			0.848			0.816			0.904		0.947
	APP/DEPART	53	/	151	95	/	133	728	/	681	1,283	/	1,194	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	11	5	21	3	1	3	6	302	3	1	105	8	469
	4:15 PM	12	10	12	9	3	13	7	357	4	2	122	12	563
	4:30 PM	5	8	14	7	1	6	3	319	5	2	113	7	490
	4:45 PM	5	1	6	8	2	4	15	304	6	2	124	5	482
	5:00 PM	8	4	5	6	2	9	9	310	2	5	140	5	505
	5:15 PM	4	4	3	5	5	3	5	347	7	1	133	1	518
	5:30 PM	2	1	5	8	1	3	4	332	8	1	125	8	498
	5:45 PM	5	3	2	9	0	4	6	366	2	3	104	7	511
	VOLUMES	52	36	68	55	15	45	55	2,637	37	17	966	53	4,036
	APPROACH %	33%	23%	44%	48%	13%	39%	2%	97%	1%	2%	93%	5%	
	APP/DEPART	156	/	144	115	/	69	2,729	/	2,760	1,036	/	1,063	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	30	23	37	30	8	32	34	1,290	17	11	499	29	2,040
	APPROACH %	33%	26%	41%	43%	11%	46%	3%	96%	1%	2%	93%	5%	
	PEAK HR FACTOR		0.662			0.700			0.911			0.898		0.906
	APP/DEPART	90	/	86	70	/	36	1,341	/	1,357	539	/	561	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	1	1	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	2	3
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	X	0
2	0	0	16
2	1	0	4
1	0	0	4
0	0	0	2
0	1	0	3
2	2	0	1
3	0	0	2
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
10	4	0	33
5	1	0	26
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
8	1	0	2
2	4	0	1
3	2	0	3
2	2	0	2
1	5	0	1
0	2	0	0
1	2	0	2
1	0	0	1
18	18	0	12
8	13	0	7



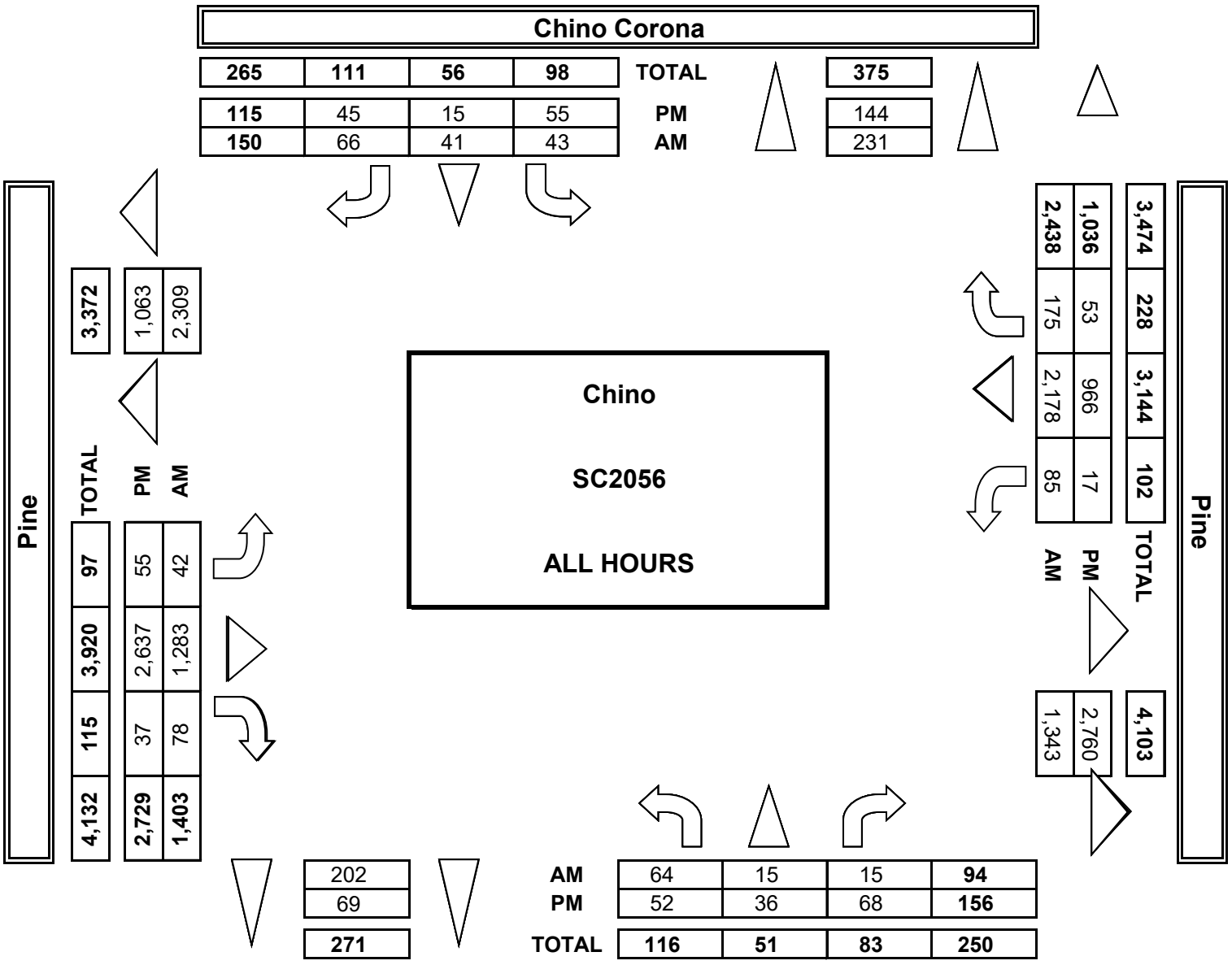
		ALL PED AND BIKE				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	3	0	0	3	6
	9:00 AM	0	0	0	0	0
	9:15 AM	0	0	0	0	0
	9:30 AM	0	0	0	0	0
	9:45 AM	0	0	0	0	0
	TOTAL	3	0	0	3	6
PM	3:00 PM	0	0	0	0	0
	3:15 PM	0	0	0	0	0
	3:30 PM	0	0	0	0	0
	3:45 PM	0	0	0	0	0
	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
	TOTAL	0	0	0	0	0

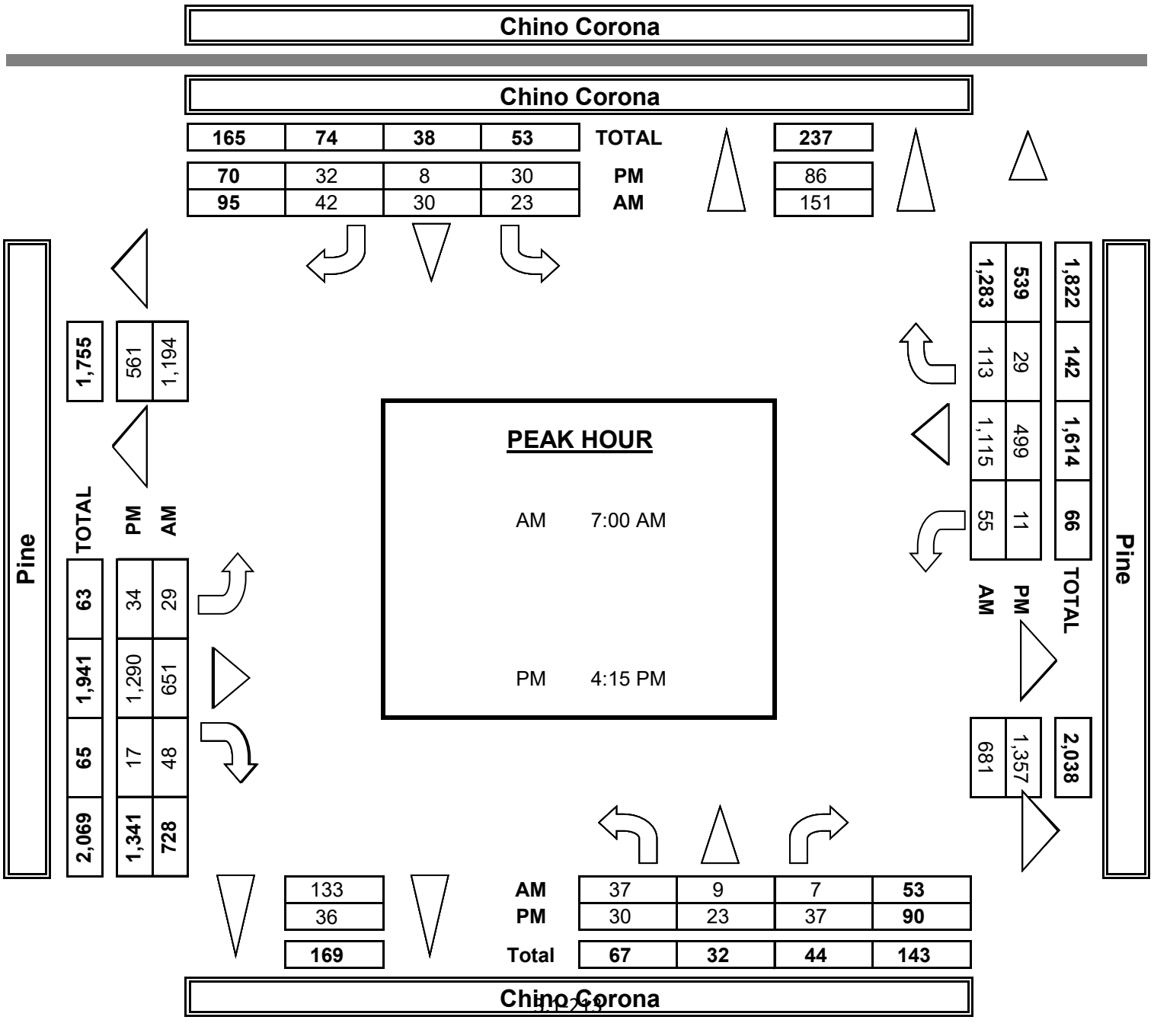
		PEDESTRIAN CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	3	0	0	3	6
	9:00 AM	0	0	0	0	0
	9:15 AM	0	0	0	0	0
	9:30 AM	0	0	0	0	0
	9:45 AM	0	0	0	0	0
	TOTAL	3	0	0	3	6
PM	3:00 PM	0	0	0	0	0
	3:15 PM	0	0	0	0	0
	3:30 PM	0	0	0	0	0
	3:45 PM	0	0	0	0	0
	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
	TOTAL	0	0	0	0	0

		BICYCLE CROSSINGS				
		ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
	9:00 AM	0	0	0	0	0
	9:15 AM	0	0	0	0	0
	9:30 AM	0	0	0	0	0
	9:45 AM	0	0	0	0	0
	TOTAL	0	0	0	0	0
PM	3:00 PM	0	0	0	0	0
	3:15 PM	0	0	0	0	0
	3:30 PM	0	0	0	0	0
	3:45 PM	0	0	0	0	0
	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
	TOTAL	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/30/19	LOCATION:	Chino	PROJECT #:	SC2056
WEDNESDAY	NORTH & SOUTH:	Chino Corona	LOCATION #:	26
	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Chino Corona			SOUTHBOUND Chino Corona			EASTBOUND Pine			WESTBOUND Pine			
LANES:	NL 1	NT 1	NR 0	SL 1	ST 1	SR 0	EL 1	ET 2	ER 1	WL 1	WT 1	WR 1	TOTAL
7:00 AM	13	2	2	2	8	16	4	118	10	14	281	41	511
7:15 AM	6	1	3	4	5	6	5	140	6	14	258	10	458
7:30 AM	8	2	1	5	7	12	7	184	8	8	261	19	522
7:45 AM	2	2	0	4	8	5	6	165	14	17	269	23	515
8:00 AM	1	2	0	2	5	5	2	163	4	6	274	16	480
8:15 AM	5	1	0	6	1	7	3	161	1	8	247	17	457
8:30 AM	3	1	2	7	2	5	3	125	5	6	248	13	420
8:45 AM	2	0	1	3	1	6	3	117	3	6	259	8	409
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	40	11	9	33	37	62	33	1,173	51	79	2,097	147	3,772
APPROACH %	67%	18%	15%	25%	28%	47%	3%	93%	4%	3%	90%	6%	
APP/DEPART	60	/	190	132	/	165	1,257	/	1,217	2,323	/	2,200	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	29	7	6	15	28	39	22	607	38	53	1,069	93	2,006
APPROACH %	69%	17%	14%	18%	34%	48%	3%	91%	6%	4%	88%	8%	
PEAK HR FACTOR		0.618			0.788			0.838			0.904		0.961
APP/DEPART	42	/	122	82	/	119	667	/	628	1,215	/	1,137	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	11	4	21	3	1	2	5	282	2	1	102	8	442
4:15 PM	11	8	12	9	3	13	7	341	4	2	118	10	538
4:30 PM	4	7	14	6	1	5	3	306	4	2	108	7	467
4:45 PM	5	1	6	8	2	4	15	290	4	2	117	5	459
5:00 PM	6	4	5	6	0	9	9	300	2	4	134	5	484
5:15 PM	4	4	2	5	5	3	5	330	7	1	130	1	497
5:30 PM	2	1	5	8	1	3	4	319	4	0	123	8	478
5:45 PM	5	3	2	9	0	4	6	360	1	3	101	6	500
VOLUMES	48	32	67	54	13	43	54	2,528	28	15	933	50	3,865
APPROACH %	33%	22%	46%	49%	12%	39%	2%	97%	1%	2%	93%	5%	
APP/DEPART	147	/	136	110	/	56	2,610	/	2,649	998	/	1,024	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	17	12	14	28	6	19	24	1,309	14	8	488	20	1,959
APPROACH %	40%	28%	33%	53%	11%	36%	2%	97%	1%	2%	95%	4%	
PEAK HR FACTOR		0.717			0.883			0.918			0.902		0.980
APP/DEPART	43	/	56	53	/	28	1,347	/	1,351	516	/	524	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	1	1	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	2	3
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/30/19	LOCATION:	Chino	PROJECT #:	SC2056
WEDNESDAY	NORTH & SOUTH:	Chino Corona	LOCATION #:	26
	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Chino Corona			SOUTHBOUND Chino Corona			EASTBOUND Pine			WESTBOUND Pine			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	1	1	0	1	2	1	1	1	1	

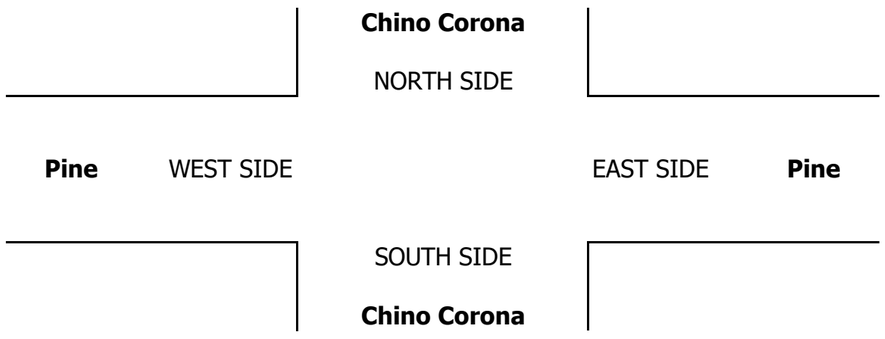
U-TURNS

NB	SB	EB	WB	TTL

RTOR

NRR	SRR	ERR	WRR
0	0	X	0

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS					RTOR			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
AM	7:00 AM	0	0	0	1	0	0	2	5	0	0	12	6	26	0	0	0	0	0	0	0	0	4
	7:15 AM	0	0	0	1	0	0	0	6	1	0	10	4	22	0	0	0	0	0	0	0	0	1
	7:30 AM	0	1	0	0	0	1	2	14	1	0	11	3	33	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	2	1	1	2	10	0	0	4	2	22	0	0	0	0	0	0	0	0	1
	8:00 AM	2	0	0	0	1	1	0	13	0	0	5	1	23	0	0	0	0	0	0	0	0	1
	8:15 AM	2	0	1	1	1	0	1	15	1	0	8	0	30	0	0	0	0	0	1	0	0	0
	8:30 AM	1	1	0	0	0	0	0	9	1	0	5	3	20	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	12	3	0	8	1	24	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	5	2	1	5	3	3	7	84	7	0	63	20	200	0	0	0	0	0	1	0	0	7
	APPROACH %	63%	25%	13%	45%	27%	27%	7%	86%	7%	0%	76%	24%										
	APP/DEPART	8	/	29	11	/	10	98	/	90	83	/	71	0									
	BEGIN PEAK HR		7:30 AM																				
	VOLUMES	4	1	1	3	3	3	5	52	2	0	28	6	108						1	0	0	2
	APPROACH %	67%	17%	17%	33%	33%	33%	8%	88%	3%	0%	82%	18%										
	PEAK HR FACTOR		0.500			0.563			0.868			0.607		0.818									
	APP/DEPART	6	/	12	9	/	5	59	/	56	34	/	35	0									
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	1	0	0	0	1	0	15	0	0	1	0	18	0	0	0	0	0	0	0	0	0
	4:15 PM	1	2	0	0	0	0	0	11	0	0	4	2	20	0	0	0	0	0	0	0	0	0
	4:30 PM	1	1	0	1	0	0	0	10	1	0	3	0	17	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	12	1	0	6	0	19	0	0	0	0	0	0	0	0	0
	5:00 PM	1	0	0	0	2	0	0	9	0	1	6	0	19	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	1	0	0	0	0	15	0	0	3	0	19	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	12	3	1	1	0	17	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	4	1	0	2	1	8	0	0	0	0	0	0	0	0	0
	VOLUMES	3	4	1	1	2	1	0	88	6	2	26	3	137	0	0	0	0	0	0	0	0	0
	APPROACH %	38%	50%	13%	25%	50%	25%	0%	94%	6%	6%	84%	10%										
	APP/DEPART	8	/	7	4	/	10	94	/	90	31	/	30	0									
	BEGIN PEAK HR		4:15 PM																				
	VOLUMES	3	3	0	1	2	0	0	42	2	1	19	2	75						0	0	0	0
	APPROACH %	50%	50%	0%	33%	67%	0%	0%	95%	5%	5%	86%	9%										
	PEAK HR FACTOR		0.500			0.375			0.846			0.786		0.938									
	APP/DEPART	6	/	5	3	/	5	44	/	43	22	/	22	0									



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/30/19	LOCATION:	Chino	PROJECT #:	SC2056
WEDNESDAY	NORTH & SOUTH:	Chino Corona	LOCATION #:	26
	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Chino Corona			SOUTHBOUND Chino Corona			EASTBOUND Pine			WESTBOUND Pine			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	1	1	0	1	2	1	1	1	1	

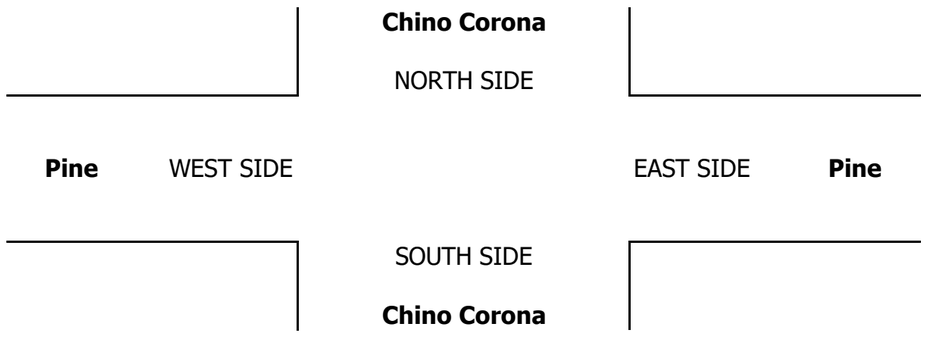
U-TURNS

NB	SB	EB	WB	TTL

RTOR

NRR	SRR	ERR	WRR
0	0	X	0

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS					RTOR			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
AM	7:00 AM	0	1	0	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0
	7:15 AM	1	0	0	0	1	0	0	0	1	0	3	0	6	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	1	0	0	0	0	0	1	0	1	0	3	0	0	0	0	0	0	0	0	0
	7:45 AM	2	0	0	0	0	0	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	1	1	1	1	0	4	0	0	0	0	0	0	0	0	0
	8:15 AM	1	0	1	0	0	0	0	4	2	1	1	0	10	0	0	0	0	0	1	0	0	0
	8:30 AM	2	0	1	0	0	0	0	3	1	0	1	0	8	0	0	0	0	0	0	0	0	0
	8:45 AM	3	0	0	0	0	0	0	2	0	0	0	0	5	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	9	1	3	0	1	0	0	11	7	2	7	0	41	0	0	0	0	0	1	0	0	0
	APPROACH %	69%	8%	23%	0%	100%	0%	0%	61%	39%	22%	78%	0%										
	APP/DEPART	13	/	1	1	/	10	18	/	14	9	/	16	0									
	BEGIN PEAK HR		8:00 AM																				
	VOLUMES	6	0	2	0	0	0	0	10	4	2	3	0	27						1	0	0	0
	APPROACH %	75%	0%	25%	0%	0%	0%	0%	71%	29%	40%	60%	0%										
	PEAK HR FACTOR		0.667			0.000			0.583			0.625		0.675									
	APP/DEPART	8	/	0	0	/	6	14	/	12	5	/	9	0									
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	9	0	0	2	0	11	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%										
	APP/DEPART	0	/	0	0	/	0	9	/	9	2	/	2	0									
	BEGIN PEAK HR		4:00 PM																				
	VOLUMES	0	0	0	0	0	0	0	5	0	0	1	0	6						0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%										
	PEAK HR FACTOR		0.000			0.000			0.625			0.250		0.750									
	APP/DEPART	0	/	0	0	/	0	5	/	5	1	/	1	0									



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/30/19	LOCATION:	Chino	PROJECT #:	SC2056
WEDNESDAY	NORTH & SOUTH:	Chino Corona	LOCATION #:	26
	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Chino Corona			SOUTHBOUND Chino Corona			EASTBOUND Pine			WESTBOUND Pine			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	1	1	0	1	2	1	1	1	1	

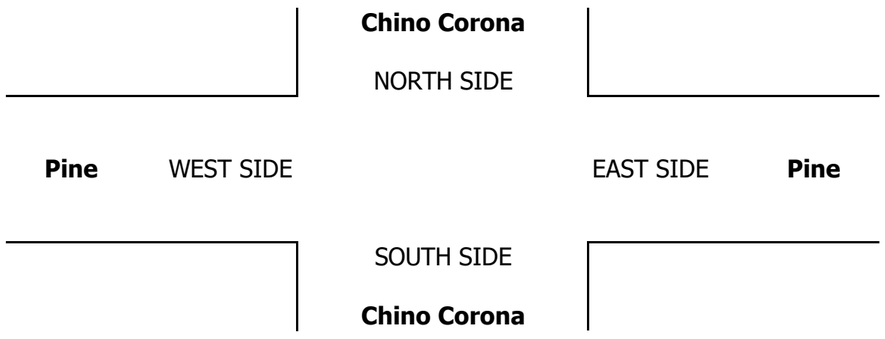
U-TURNS

NB	SB	EB	WB	TTL

RTOR

NRR	SRR	ERR	WRR
0	0	X	0

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS					RTOR			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
AM	7:00 AM	1	0	0	1	0	0	0	1	2	0	1	0	6	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	1	0	0	0	0	2	1	1	1	6	0	0	0	0	0	0	0	0	0
	7:30 AM	1	0	0	1	0	1	1	2	1	0	1	1	9	0	0	0	0	0	0	0	0	0
	7:45 AM	2	0	0	0	0	0	0	1	0	1	2	0	6	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	1	0	0	1	2	1	1	1	0	7	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	2	3	0	1	0	6	0	0	0	0	0	0	0	0	0
	8:30 AM	1	1	1	0	0	0	0	1	2	0	2	1	9	0	0	0	0	0	1	0	0	0
	8:45 AM	3	0	1	0	0	0	0	1	2	1	2	2	12	0	0	0	0	0	0	0	0	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	8	1	2	4	0	1	2	10	13	4	11	5	61	0	0	0	0	0	1	0	0	1
	APPROACH %	73%	9%	18%	80%	0%	20%	8%	40%	52%	20%	55%	25%										
	APP/DEPART	11	/	8	5	/	17	25	/	16	20	/	20	0									
	BEGIN PEAK HR	8:00 AM																					
	VOLUMES	4	1	2	1	0	0	1	6	8	2	6	3	34						1	0	0	1
	APPROACH %	57%	14%	29%	100%	0%	0%	7%	40%	53%	18%	55%	27%										
	PEAK HR FACTOR	0.438			0.250			0.750			0.550			0.708									
	APP/DEPART	7	/	5	1	/	10	15	/	9	11	/	10	0									
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	4	1	0	1	0	6	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	1	0	2	0	0	1	0	4	0	0	0	0	0	0	1	0	0
	4:45 PM	0	0	0	0	0	0	0	1	1	0	1	0	3	0	0	0	0	0	0	0	0	0
	5:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0
	VOLUMES	1	0	0	0	0	1	0	12	3	0	5	0	22	0	0	0	0	0	0	1	0	0
	APPROACH %	100%	0%	0%	0%	0%	100%	0%	80%	20%	0%	100%	0%										
	APP/DEPART	1	/	0	1	/	3	15	/	12	5	/	7	0									
	BEGIN PEAK HR	4:00 PM																					
	VOLUMES	0	0	0	0	0	1	0	11	2	0	3	0	17						0	1	0	0
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	85%	15%	0%	100%	0%										
	PEAK HR FACTOR	0.000			0.250			0.650			0.750			0.708									
	APP/DEPART	0	/	0	1	/	2	13	/	11	3	/	4	0									



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/30/19	LOCATION:	Chino	PROJECT #:	SC2056
WEDNESDAY	NORTH & SOUTH:	Chino Corona	LOCATION #:	26
	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Chino Corona			SOUTHBOUND Chino Corona			EASTBOUND Pine			WESTBOUND Pine			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	1	1	0	1	2	1	1	1	1	

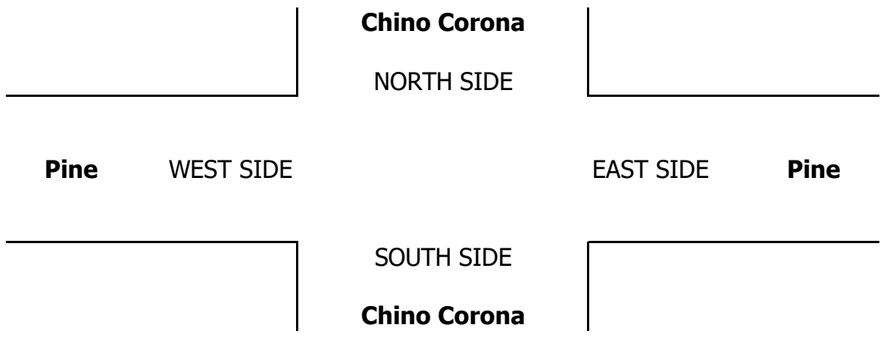
U-TURNS

NB	SB	EB	WB	TTL

RTOR

NRR	SRR	ERR	WRR
0	0	X	0

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS					RTOR			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0									
	BEGIN PEAK HR	7:00 AM																					
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0						0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
	PEAK HR FACTOR	0.000			0.000			0.000			0.000			0.000									
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0									
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0									
	BEGIN PEAK HR	3:00 PM																					
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0						0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
	PEAK HR FACTOR	0.000			0.000			0.000			0.000			0.000									
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0									



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/30/19	LOCATION:	Chino	PROJECT #:	SC2056
WEDNESDAY	NORTH & SOUTH:	Chino Corona	LOCATION #:	26
	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Chino Corona			SOUTHBOUND Chino Corona			EASTBOUND Pine			WESTBOUND Pine			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	1	1	0	1	2	1	1	1	1	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	1	0	0	0	1	0	0	0	1	3
7:30 AM	0	0	0	0	0	0	0	2	0	0	0	1	3
7:45 AM	1	0	0	0	0	0	0	1	0	0	0	1	3
8:00 AM	1	0	0	0	0	0	0	1	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	2	0	0	1	0	0	0	5	0	0	0	3	11
APPROACH %	100%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	100%	
APP/DEPART	2	/	3	1	/	0	5	/	6	3	/	2	0
BEGIN PEAK HR	7:15 AM												
VOLUMES	2	0	0	1	0	0	0	5	0	0	0	3	11
APPROACH %	100%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	100%	
PEAK HR FACTOR	0.500			0.250			0.625			0.750			0.917
APP/DEPART	2	/	3	1	/	0	5	/	6	3	/	2	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	1	0	0	0	0	0	1
APPROACH %	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	1	0	/	0	1	/	0	0	/	0	0
BEGIN PEAK HR	3:15 PM												
VOLUMES	0	0	0	0	0	0	1	0	0	0	0	0	1
APPROACH %	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	
PEAK HR FACTOR	0.000			0.000			0.250			0.000			0.250
APP/DEPART	0	/	1	0	/	0	1	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Chino
N/S: Chino Corona Road/Cucamonga Avenue
E/W: Chino Corona Road
Weather: Clear

File Name : 17_CHN_Chino Corona_Cucamonga AM
Site Code : 05118116
Start Date : 2/13/2018
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Chino Corona Road Southbound			Chino Corona Road Westbound			Cucamonga Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	1	1	2	0	28	28	1	0	1	31
07:15 AM	1	0	1	0	19	19	0	0	0	20
07:30 AM	7	2	9	0	15	15	0	0	0	24
07:45 AM	5	1	6	0	19	19	0	0	0	25
Total	14	4	18	0	81	81	1	0	1	100
08:00 AM	4	2	6	0	9	9	0	0	0	15
08:15 AM	7	1	8	0	9	9	0	0	0	17
08:30 AM	7	0	7	0	4	4	2	0	2	13
08:45 AM	7	0	7	0	11	11	0	0	0	18
Total	25	3	28	0	33	33	2	0	2	63
Grand Total	39	7	46	0	114	114	3	0	3	163
Apprch %	84.8	15.2		0	100		100	0		
Total %	23.9	4.3	28.2	0	69.9	69.9	1.8	0	1.8	
Passenger Vehicles	13	7	20	0	97	97	3	0	3	120
% Passenger Vehicles	33.3	100	43.5	0	85.1	85.1	100	0	100	73.6
Large 2 Axle Vehicles	2	0	2	0	2	2	0	0	0	4
% Large 2 Axle Vehicles	5.1	0	4.3	0	1.8	1.8	0	0	0	2.5
3 Axle Vehicles	6	0	6	0	4	4	0	0	0	10
% 3 Axle Vehicles	15.4	0	13	0	3.5	3.5	0	0	0	6.1
4+ Axle Trucks	18	0	18	0	11	11	0	0	0	29
% 4+ Axle Trucks	46.2	0	39.1	0	9.6	9.6	0	0	0	17.8

	Chino Corona Road Southbound			Chino Corona Road Westbound			Cucamonga Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	1	1	2	0	**28**	**28**	**1**	0	**1**	**31**
07:15 AM	1	0	1	0	19	19	0	0	0	20
07:30 AM	**7**	**2**	**9**	0	15	15	0	0	0	24
07:45 AM	5	1	6	0	19	19	0	0	0	25
Total Volume	14	4	18	0	81	81	1	0	1	100
% App. Total	77.8	22.2		0	100		100	0		
PHF	.500	.500	.500	.000	.723	.723	.250	.000	.250	.806

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City of Chino
N/S: Chino Corona Road/Cucamonga Avenue
E/W: Chino Corona Road
Weather: Clear

File Name : 17_CHN_Chino Corona_Cucamonga AM
Site Code : 05118116
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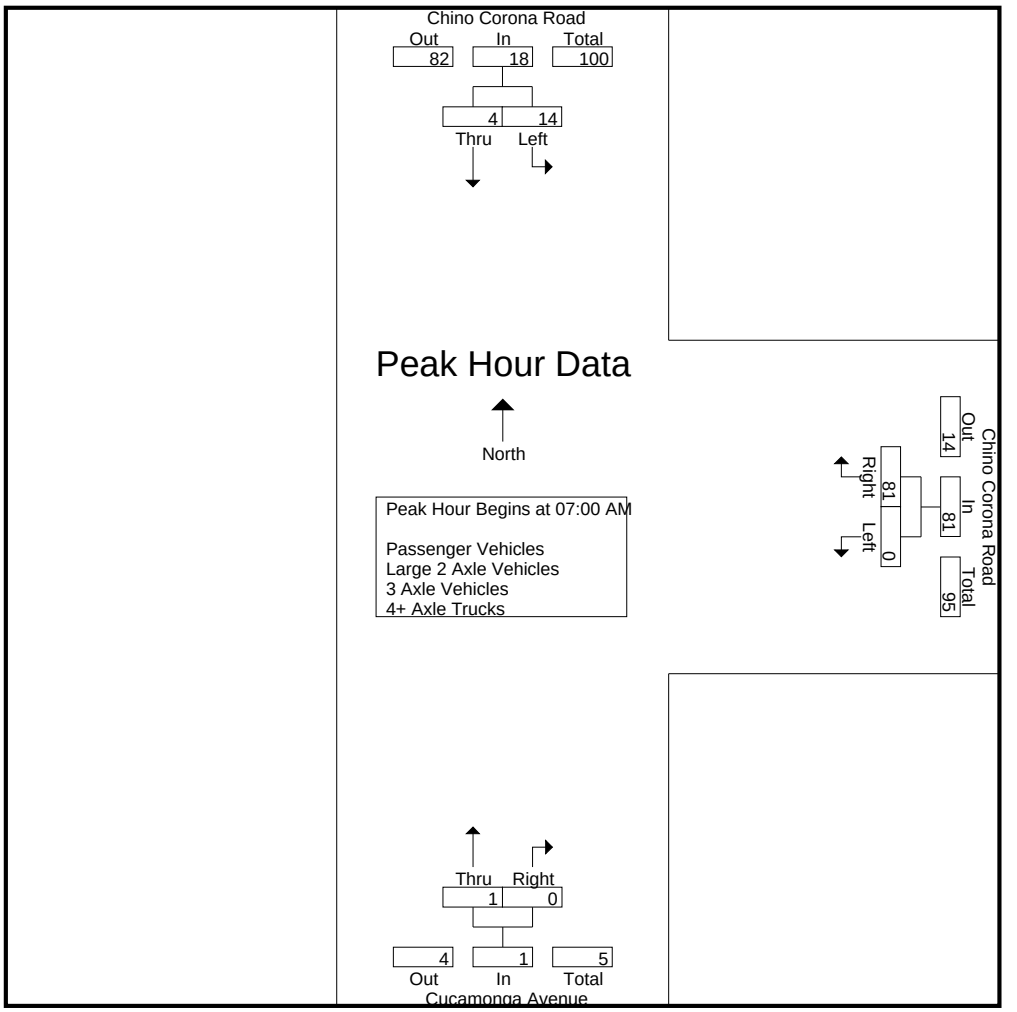

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM			07:00 AM			07:45 AM		
+0 mins.	**7**	**2**	**9**	0	**28**	**28**	0	0	0
+15 mins.	5	1	6	0	19	19	0	0	0
+30 mins.	4	2	6	0	15	15	0	0	0
+45 mins.	7	1	8	0	19	19	**2**	0	**2**
Total Volume	23	6	29	0	81	81	2	0	2
% App. Total	79.3	20.7		0	100		100	0	
PHF	.821	.750	.806	.000	.723	.723	.250	.000	.250

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City of Chino
N/S: Chino Corona Road/Cucamonga Avenue
E/W: Chino Corona Road
Weather: Clear

File Name : 17_CHN_Chino Corona_Cucamonga AM
Site Code : 05118116
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Groups Printed- Passenger Vehicles

	Chino Corona Road Southbound			Chino Corona Road Westbound			Cucamonga Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	1	0	25	25	1	0	1	27
07:15 AM	0	0	0	0	18	18	0	0	0	18
07:30 AM	6	2	8	0	14	14	0	0	0	22
07:45 AM	1	1	2	0	18	18	0	0	0	20
Total	7	4	11	0	75	75	1	0	1	87
08:00 AM	2	2	4	0	6	6	0	0	0	10
08:15 AM	1	1	2	0	9	9	0	0	0	11
08:30 AM	2	0	2	0	3	3	2	0	2	7
08:45 AM	1	0	1	0	4	4	0	0	0	5
Total	6	3	9	0	22	22	2	0	2	33
Grand Total	13	7	20	0	97	97	3	0	3	120
Apprch %	65	35		0	100		100	0		
Total %	10.8	5.8	16.7	0	80.8	80.8	2.5	0	2.5	

	Chino Corona Road Southbound			Chino Corona Road Westbound			Cucamonga Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	1	1	0	**25**	**25**	**1**	0	**1**	**27**
07:15 AM	0	0	0	0	18	18	0	0	0	18
07:30 AM	**6**	**2**	**8**	0	14	14	0	0	0	22
07:45 AM	1	1	2	0	18	18	0	0	0	20
Total Volume	7	4	11	0	75	75	1	0	1	87
% App. Total	63.6	36.4		0	100		100	0		
PHF	.292	.500	.344	.000	.750	.750	.250	.000	.250	.806

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City of Chino
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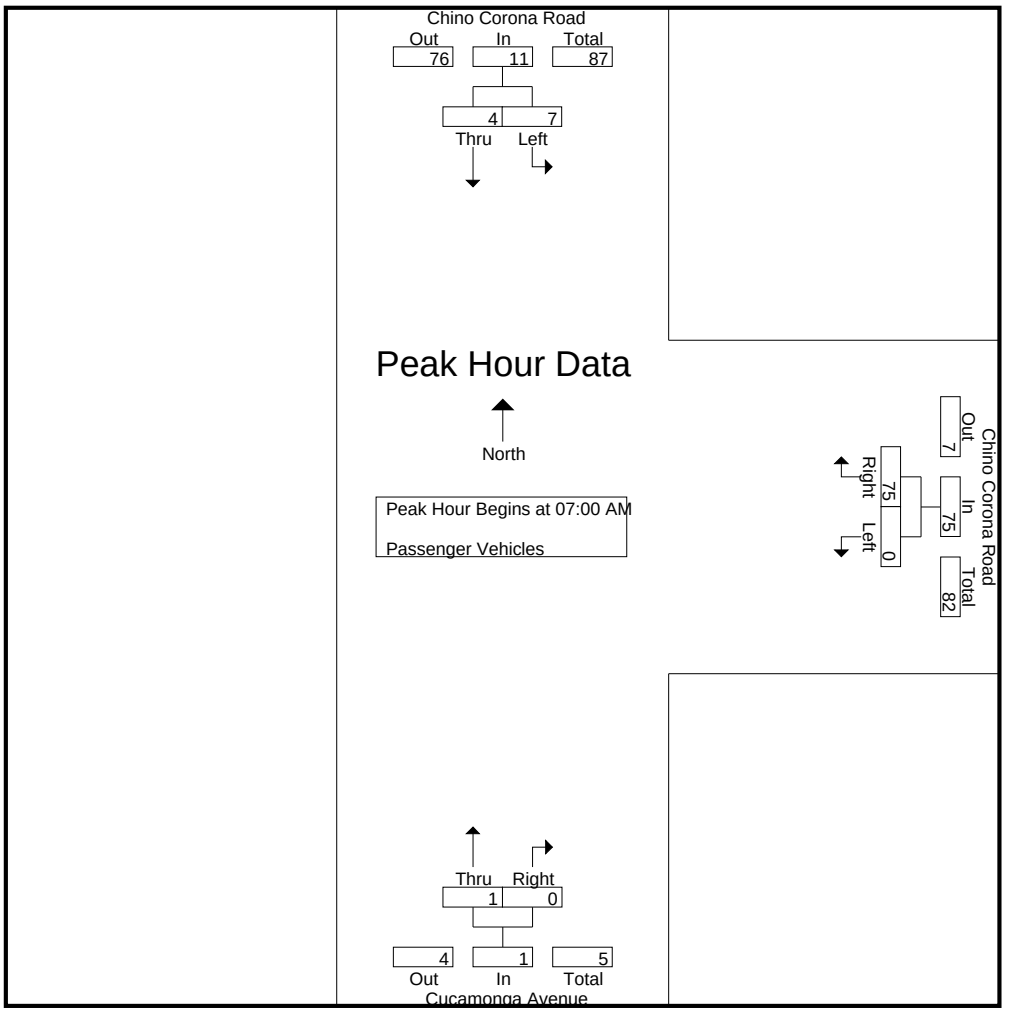
Weather: Clear

File Name : 17_CHN_Chino Corona_Cucamonga AM
Site Code : 05118116
Start Date : 2/13/2018



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	1	1	0	**25**	**25**	**1**	0	**1**
+15 mins.	0	0	0	0	18	18	0	0	0
+30 mins.	**6**	**2**	**8**	0	14	14	0	0	0
+45 mins.	1	1	2	0	18	18	0	0	0
Total Volume	7	4	11	0	75	75	1	0	1
% App. Total	63.6	36.4		0	100		100	0	
PHF	.292	.500	.344	.000	.750	.750	.250	.000	.250

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City of Chino
N/S: Chino Corona Road/Cucamonga Avenue
E/W: Chino Corona Road
Weather: Clear

File Name : 17_CHN_Chino Corona_Cucamonga AM
Site Code : 05118116
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Groups Printed- Large 2 Axle Vehicles

	Chino Corona Road Southbound			Chino Corona Road Westbound			Cucamonga Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	1	0	1	0	0	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	1	0	1	0	0	0	0	0	0	1
08:00 AM	0	0	0	0	1	1	0	0	0	1
08:15 AM	1	0	1	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	1	1	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	1	0	1	0	2	2	0	0	0	3
Grand Total	2	0	2	0	2	2	0	0	0	4
Apprch %	100	0		0	100		0	0		
Total %	50	0	50	0	50	50	0	0	0	

	Chino Corona Road Southbound			Chino Corona Road Westbound			Cucamonga Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	**1**	0	**1**	0	0	0	0	0	0	**1**
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	1	0	0	0	0	0	0	1
% App. Total	100	0		0	0		0	0		
PHF	.250	.000	.250	.000	.000	.000	.000	.000	.000	.250

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Weather: Clear

File Name : 17_CHN_Chino Corona_Cucamonga AM
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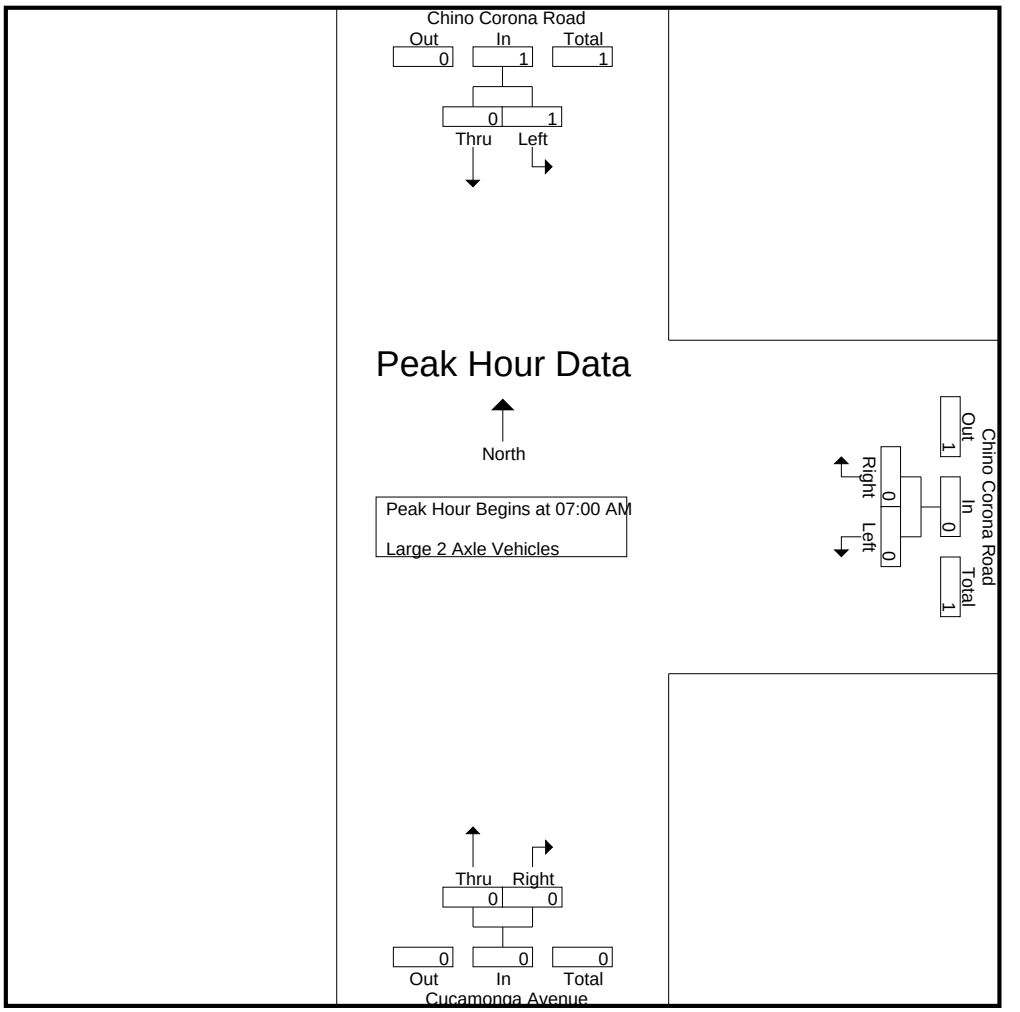

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	**1**	0	**1**	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	1	0	1	0	0	0	0	0	0
% App. Total	100	0		0	0		0	0	
PHF	.250	.000	.250	.000	.000	.000	.000	.000	.000

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City of Chino
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E/W: Chino Corona Road
Weather: Clear

File Name : 17_CHN_Chino Corona_Cucamonga AM
Site Code : 05118116
Start Date : 2/13/2018
Page No : 1

Groups Printed- 3 Axle Vehicles

	Chino Corona Road Southbound			Chino Corona Road Westbound			Cucamonga Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	1	1	0	0	0	1
07:15 AM	1	0	1	0	0	0	0	0	0	1
07:30 AM	1	0	1	0	1	1	0	0	0	2
07:45 AM	0	0	0	0	1	1	0	0	0	1
Total	2	0	2	0	3	3	0	0	0	5
08:00 AM	1	0	1	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	2	0	2	0	0	0	0	0	0	2
08:45 AM	1	0	1	0	1	1	0	0	0	2
Total	4	0	4	0	1	1	0	0	0	5
Grand Total	6	0	6	0	4	4	0	0	0	10
Apprch %	100	0		0	100		0	0		
Total %	60	0	60	0	40	40	0	0	0	

	Chino Corona Road Southbound			Chino Corona Road Westbound			Cucamonga Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	**1**	**1**	0	0	0	1
07:15 AM	**1**	0	**1**	0	0	0	0	0	0	1
07:30 AM	1	0	1	0	1	1	0	0	0	**2**
07:45 AM	0	0	0	0	1	1	0	0	0	1
Total Volume	2	0	2	0	3	3	0	0	0	5
% App. Total	100	0		0	100		0	0		
PHF	.500	.000	.500	.000	.750	.750	.000	.000	.000	.625

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City of Chino
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E/W: Chino Corona Road
Weather: Clear

File Name : 17_CHN_Chino Corona_Cucamonga AM
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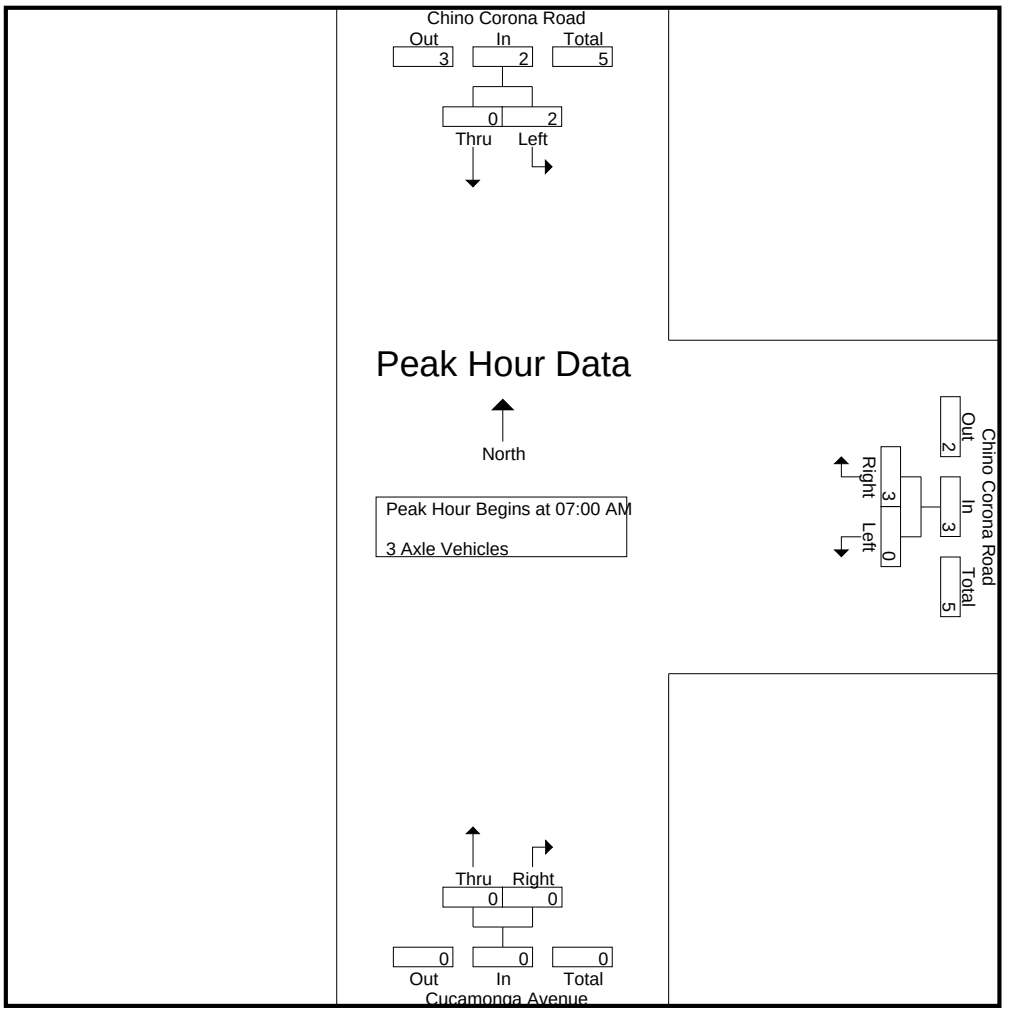

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	**1**	**1**	0	0	0
+15 mins.	**1**	0	**1**	0	0	0	0	0	0
+30 mins.	1	0	1	0	1	1	0	0	0
+45 mins.	0	0	0	0	1	1	0	0	0
Total Volume	2	0	2	0	3	3	0	0	0
% App. Total	100	0		0	100		0	0	
PHF	.500	.000	.500	.000	.750	.750	.000	.000	.000

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City of Chino
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E/W: Chino Corona Road
Weather: Clear

File Name : 17_CHN_Chino Corona_Cucamonga AM
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Groups Printed- 4+ Axle Trucks

	Chino Corona Road Southbound			Chino Corona Road Westbound			Cucamonga Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	2	2	0	0	0	2
07:15 AM	0	0	0	0	1	1	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	4	0	4	0	0	0	0	0	0	4
Total	4	0	4	0	3	3	0	0	0	7
08:00 AM	1	0	1	0	2	2	0	0	0	3
08:15 AM	5	0	5	0	0	0	0	0	0	5
08:30 AM	3	0	3	0	0	0	0	0	0	3
08:45 AM	5	0	5	0	6	6	0	0	0	11
Total	14	0	14	0	8	8	0	0	0	22
Grand Total	18	0	18	0	11	11	0	0	0	29
Apprch %	100	0		0	100		0	0		
Total %	62.1	0	62.1	0	37.9	37.9	0	0	0	

	Chino Corona Road Southbound			Chino Corona Road Westbound			Cucamonga Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	**2**	**2**	0	0	0	2
07:15 AM	0	0	0	0	1	1	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	**4**	0	**4**	0	0	0	0	0	0	**4**
Total Volume	4	0	4	0	3	3	0	0	0	7
% App. Total	100	0		0	100		0	0		
PHF	.250	.000	.250	.000	.375	.375	.000	.000	.000	.438

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City of Chino
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Weather: Clear

File Name : 17_CHN_Chino Corona_Cucamonga AM
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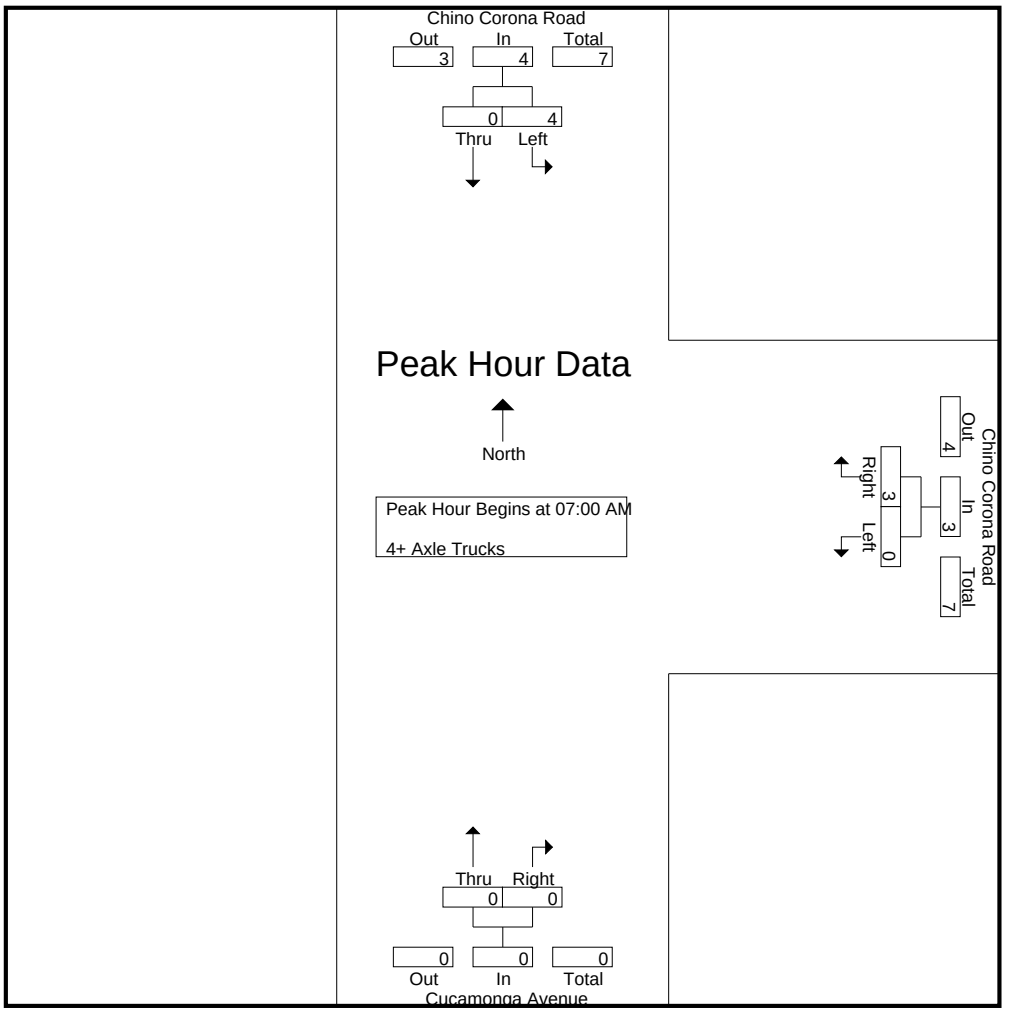

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	**2**	**2**	0	0	0
+15 mins.	0	0	0	0	1	1	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	**4**	0	**4**	0	0	0	0	0	0
Total Volume	4	0	4	0	3	3	0	0	0
% App. Total	100	0		0	100		0	0	
PHF	.250	.000	.250	.000	.375	.375	.000	.000	.000

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City of Chino
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E/W: Chino Corona Road
Weather: Clear

File Name : 17_CHN_Chino Corona_Cucamonga PM
Site Code : 05118116
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Chino Corona Road Southbound			Chino Corona Road Westbound			Cucamonga Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	19	1	20	1	3	4	0	1	1	25
04:15 PM	8	0	8	0	2	2	0	0	0	10
04:30 PM	8	0	8	0	5	5	0	0	0	13
04:45 PM	4	0	4	0	2	2	0	0	0	6
Total	39	1	40	1	12	13	0	1	1	54
05:00 PM	9	1	10	0	2	2	1	0	1	13
05:15 PM	13	0	13	0	3	3	2	0	2	18
05:30 PM	7	0	7	0	5	5	0	0	0	12
05:45 PM	6	0	6	0	0	0	0	0	0	6
Total	35	1	36	0	10	10	3	0	3	49
Grand Total	74	2	76	1	22	23	3	1	4	103
Apprch %	97.4	2.6		4.3	95.7		75	25		
Total %	71.8	1.9	73.8	1	21.4	22.3	2.9	1	3.9	
Passenger Vehicles	71	2	73	1	20	21	3	1	4	98
% Passenger Vehicles	95.9	100	96.1	100	90.9	91.3	100	100	100	95.1
Large 2 Axle Vehicles	0	0	0	0	1	1	0	0	0	1
% Large 2 Axle Vehicles	0	0	0	0	4.5	4.3	0	0	0	1
3 Axle Vehicles	1	0	1	0	0	0	0	0	0	1
% 3 Axle Vehicles	1.4	0	1.3	0	0	0	0	0	0	1
4+ Axle Trucks	2	0	2	0	1	1	0	0	0	3
% 4+ Axle Trucks	2.7	0	2.6	0	4.5	4.3	0	0	0	2.9

	Chino Corona Road Southbound			Chino Corona Road Westbound			Cucamonga Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	**19**	**1**	**20**	**1**	3	4	0	**1**	**1**	**25**
04:15 PM	8	0	8	0	2	2	0	0	0	10
04:30 PM	8	0	8	0	**5**	**5**	0	0	0	13
04:45 PM	4	0	4	0	2	2	0	0	0	6
Total Volume	39	1	40	1	12	13	0	1	1	54
% App. Total	97.5	2.5		7.7	92.3		0	100		
PHF	.513	.250	.500	.250	.600	.650	.000	.250	.250	.540

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Weather: Clear

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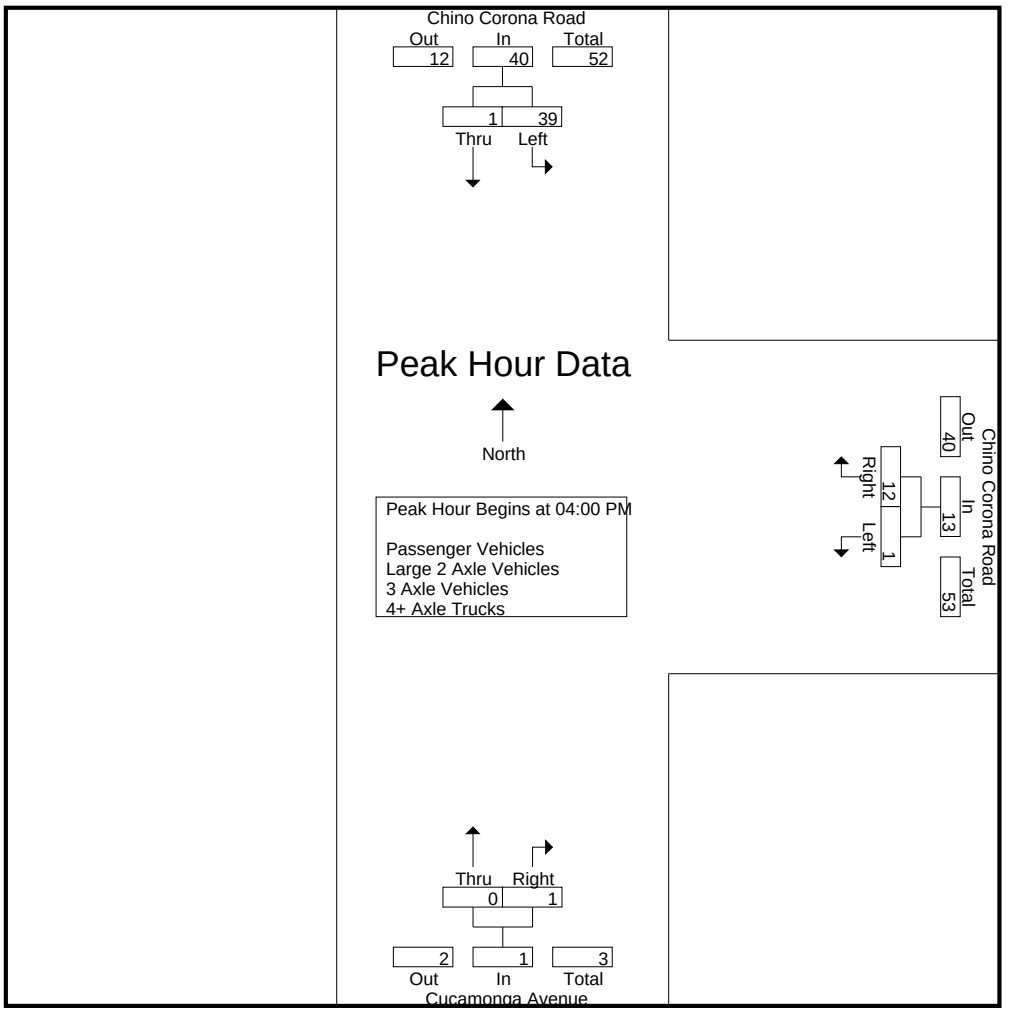

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:30 PM		
+0 mins.	**19**	**1**	**20**	**1**	3	4	0	0	0
+15 mins.	8	0	8	0	2	2	0	0	0
+30 mins.	8	0	8	0	**5**	**5**	1	0	1
+45 mins.	4	0	4	0	2	2	**2**	0	**2**
Total Volume	39	1	40	1	12	13	3	0	3
% App. Total	97.5	2.5		7.7	92.3		100	0	
PHF	.513	.250	.500	.250	.600	.650	.375	.000	.375

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Chino
N/S: Chino Corona Road/Cucamonga Avenue
E/W: Chino Corona Road
Weather: Clear

File Name : 17_CHN_Chino Corona_Cucamonga PM
Site Code : 05118116
Start Date : 2/13/2018
Page No : 1

Groups Printed- Passenger Vehicles

	Chino Corona Road Southbound			Chino Corona Road Westbound			Cucamonga Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	18	1	19	1	3	4	0	1	1	24
04:15 PM	8	0	8	0	1	1	0	0	0	9
04:30 PM	8	0	8	0	4	4	0	0	0	12
04:45 PM	4	0	4	0	2	2	0	0	0	6
Total	38	1	39	1	10	11	0	1	1	51
05:00 PM	7	1	8	0	2	2	1	0	1	11
05:15 PM	13	0	13	0	3	3	2	0	2	18
05:30 PM	7	0	7	0	5	5	0	0	0	12
05:45 PM	6	0	6	0	0	0	0	0	0	6
Total	33	1	34	0	10	10	3	0	3	47
Grand Total	71	2	73	1	20	21	3	1	4	98
Apprch %	97.3	2.7		4.8	95.2		75	25		
Total %	72.4	2	74.5	1	20.4	21.4	3.1	1	4.1	

	Chino Corona Road Southbound			Chino Corona Road Westbound			Cucamonga Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	**18**	**1**	**19**	**1**	3	**4**	0	**1**	**1**	**24**
04:15 PM	8	0	8	0	1	1	0	0	0	9
04:30 PM	8	0	8	0	**4**	4	0	0	0	12
04:45 PM	4	0	4	0	2	2	0	0	0	6
Total Volume	38	1	39	1	10	11	0	1	1	51
% App. Total	97.4	2.6		9.1	90.9		0	100		
PHF	.528	.250	.513	.250	.625	.688	.000	.250	.250	.531

Counts Unlimited
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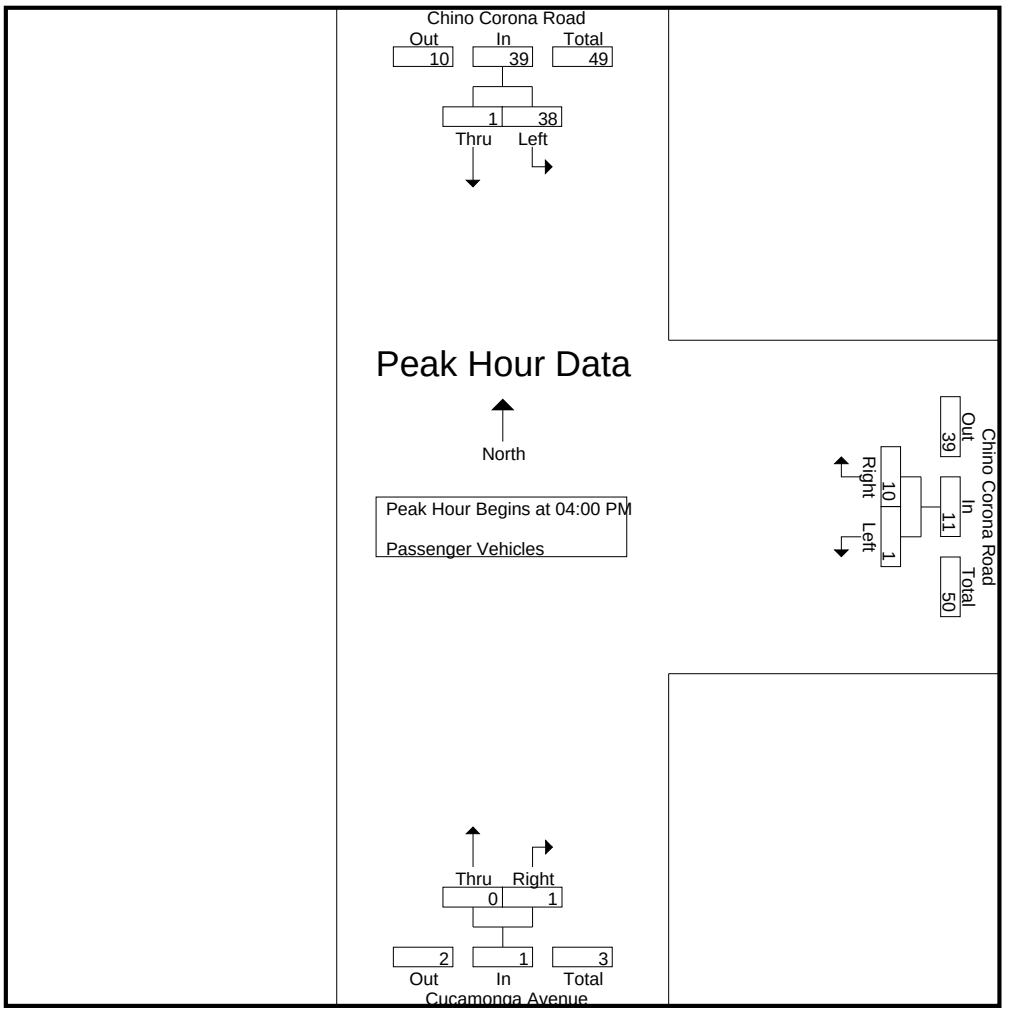
City of Chino
N/S: Chino Corona Road/Cucamonga Avenue
E/W: Chino Corona Road
Weather: Clear

File Name : 17_CHN_Chino Corona_Cucamonga PM
Site Code : 05118116
Start Date : 2/13/2018
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	**18**	**1**	**19**	**1**	3	**4**	0	**1**	**1**
+15 mins.	8	0	8	0	1	1	0	0	0
+30 mins.	8	0	8	0	**4**	4	0	0	0
+45 mins.	4	0	4	0	2	2	0	0	0
Total Volume	38	1	39	1	10	11	0	1	1
% App. Total	97.4	2.6		9.1	90.9		0	100	
PHF	.528	.250	.513	.250	.625	.688	.000	.250	.250

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City of Chino
N/S: Chino Corona Road/Cucamonga Avenue
E/W: Chino Corona Road
Weather: Clear

File Name : 17_CHN_Chino Corona_Cucamonga PM
Site Code : 05118116
Start Date : 2/13/2018
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Chino Corona Road Southbound			Chino Corona Road Westbound			Cucamonga Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	1	1	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	1	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	1	1	0	0	0	1
Apprch %	0	0		0	100		0	0		
Total %	0	0	0	0	100	100	0	0	0	

	Chino Corona Road Southbound			Chino Corona Road Westbound			Cucamonga Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	**1**	**1**	0	0	0	**1**
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	1	0	0	0	1
% App. Total	0	0		0	100		0	0		
PHF	.000	.000	.000	.000	.250	.250	.000	.000	.000	.250

Counts Unlimited
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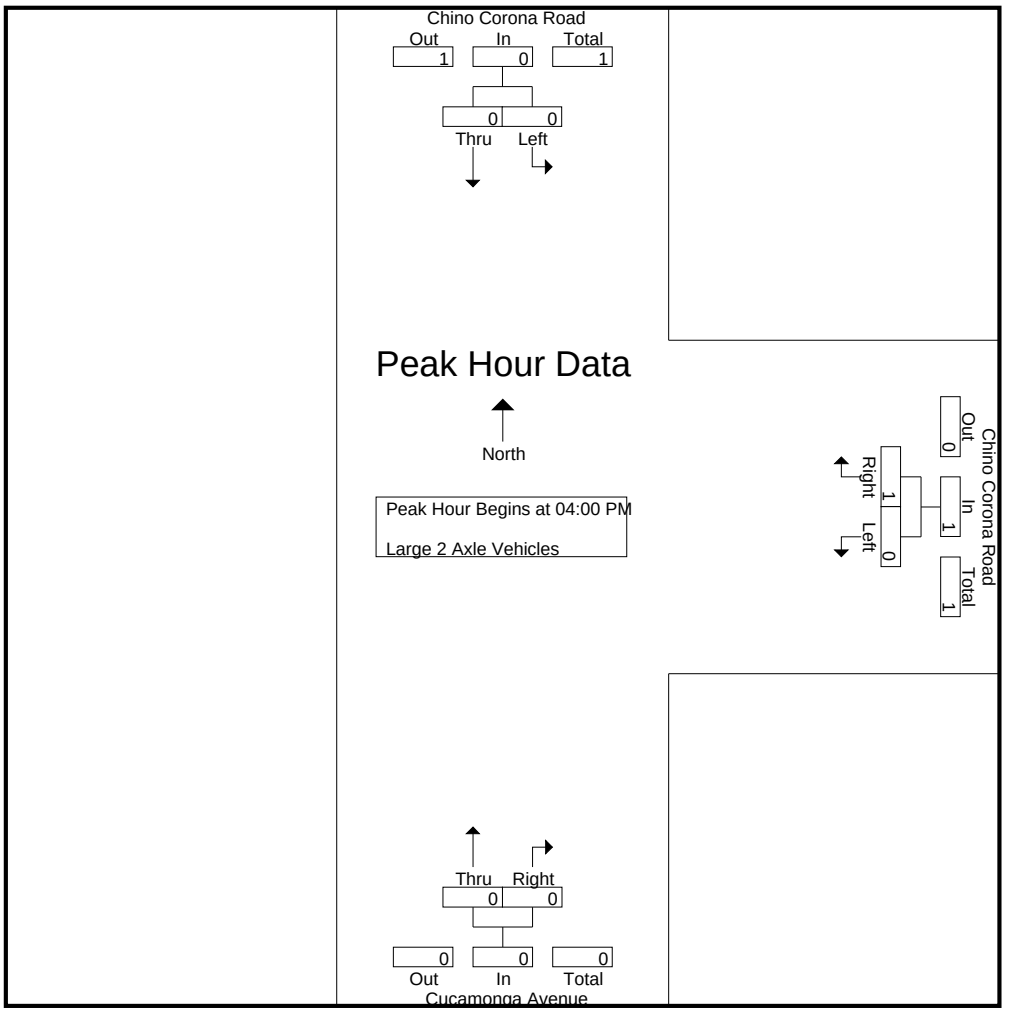
City of Chino
N/S: Chino Corona Road/Cucamonga Avenue
E/W: Chino Corona Road
Weather: Clear

File Name : 17_CHN_Chino Corona_Cucamonga PM
Site Code : 05118116
Start Date : 2/13/2018
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	**1**	**1**	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	1	0	0	0
% App. Total	0	0		0	100		0	0	
PHF	.000	.000	.000	.000	.250	.250	.000	.000	.000

Counts Unlimited
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City of Chino
N/S: Chino Corona Road/Cucamonga Avenue
E/W: Chino Corona Road
Weather: Clear

File Name : 17_CHN_Chino Corona_Cucamonga PM
Site Code : 05118116
Start Date : 2/13/2018
Page No : 1

Groups Printed- 3 Axle Vehicles

	Chino Corona Road Southbound			Chino Corona Road Westbound			Cucamonga Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	1	0	1	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	1	0	1	0	0	0	0	0	0	1
Grand Total	1	0	1	0	0	0	0	0	0	1
Apprch %	100	0		0	0		0	0		
Total %	100	0	100	0	0	0	0	0	0	

	Chino Corona Road Southbound			Chino Corona Road Westbound			Cucamonga Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited
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City of Chino
N/S: Chino Corona Road/Cucamonga Avenue
E/W: Chino Corona Road
Weather: Clear

File Name : 17_CHN_Chino Corona_Cucamonga PM
Site Code : 05118116
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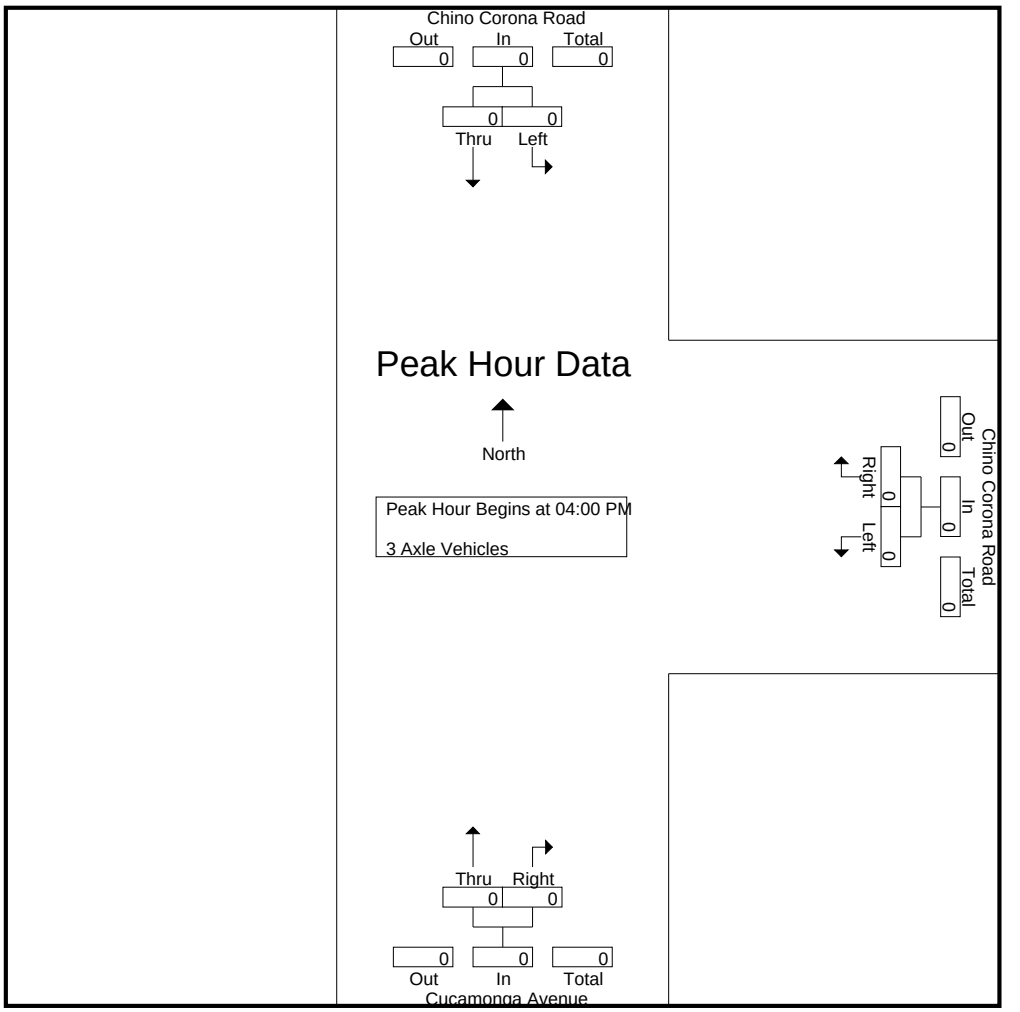

Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited
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City of Chino
N/S: Chino Corona Road/Cucamonga Avenue
E/W: Chino Corona Road
Weather: Clear

File Name : 17_CHN_Chino Corona_Cucamonga PM
Site Code : 05118116
Start Date : 2/13/2018
Page No : 1

Groups Printed- 4+ Axle Trucks

	Chino Corona Road Southbound			Chino Corona Road Westbound			Cucamonga Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	1	0	1	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	1	1	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	1	0	1	0	1	1	0	0	0	2
05:00 PM	1	0	1	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	1	0	1	0	0	0	0	0	0	1
Grand Total	2	0	2	0	1	1	0	0	0	3
Apprch %	100	0		0	100		0	0		
Total %	66.7	0	66.7	0	33.3	33.3	0	0	0	

	Chino Corona Road Southbound			Chino Corona Road Westbound			Cucamonga Avenue Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	**1**	0	**1**	0	0	0	0	0	0	**1**
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	**1**	**1**	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	1	0	1	1	0	0	0	2
% App. Total	100	0		0	100		0	0		
PHF	.250	.000	.250	.000	.250	.250	.000	.000	.000	.500

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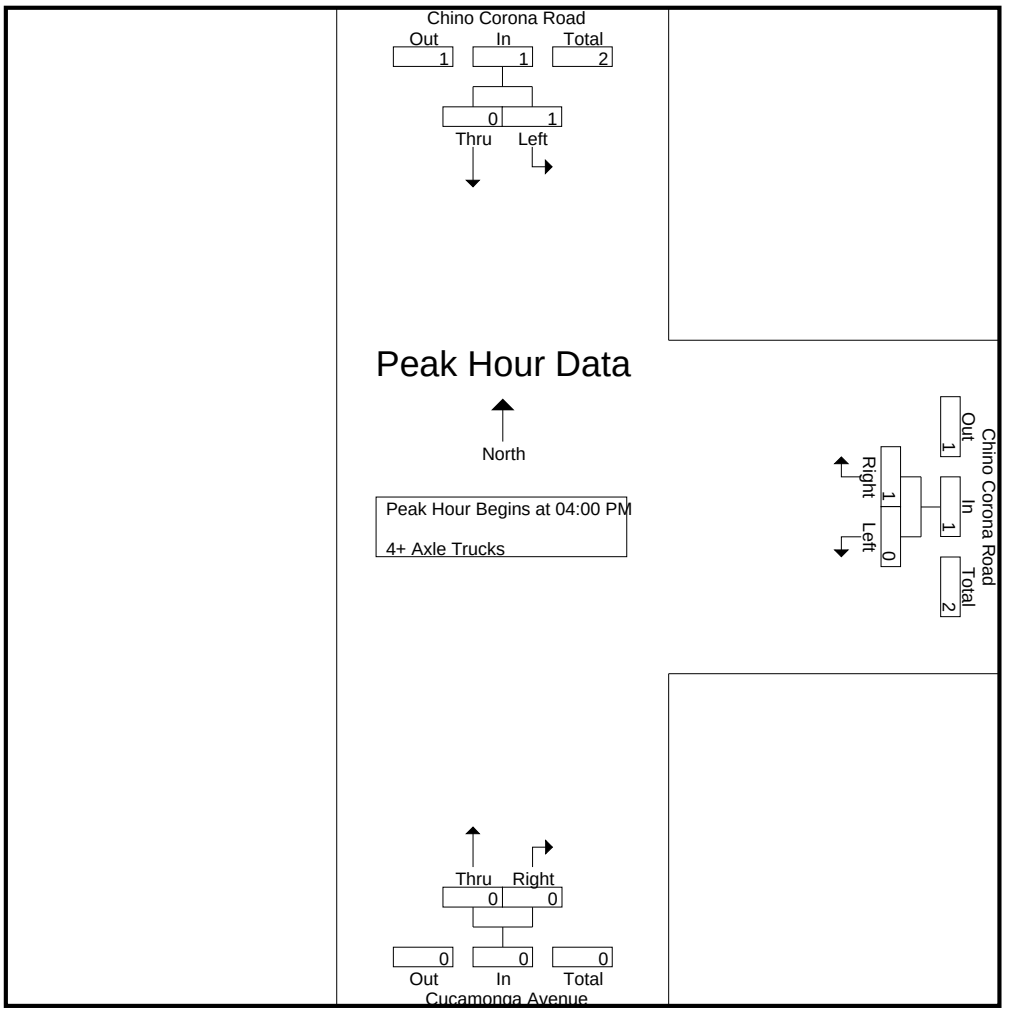
City of Chino
N/S: Chino Corona Road/Cucamonga Avenue
E/W: Chino Corona Road
Weather: Clear

File Name : 17_CHN_Chino Corona_Cucamonga PM
Site Code : 05118116
Start Date : 2/13/2018
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	**1**	0	**1**	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	**1**	**1**	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	1	0	1	0	1	1	0	0	0
% App. Total	100	0		0	100		0	0	
PHF	.250	.000	.250	.000	.250	.250	.000	.000	.000

Location: Chino
N/S: Chino Corona Road/Cucamonga Avenue
E/W: Chino Corona Road

Date: 2/13/2018
Date: Tuesday

PEDESTRIANS

	North Leg Chino Corona Road	East Leg Chino Corona Road	South Leg Cucamonga Avenue	West Leg Dead End	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Chino Corona Road	East Leg Chino Corona Road	South Leg Cucamonga Avenue	West Leg Dead End	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Location: Chino
N/S: Chino Corona Road/Cucamonga Avenue
E/W: Chino Corona Road

Date: 2/13/2018
Date: Tuesday

BICYCLES

	Southbound Chino Corona Road			Westbound Chino Corona Road			Northbound Cucamonga Avenue			Eastbound Dead End			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Chino Corona Road			Westbound Chino Corona Road			Northbound Cucamonga Avenue			Eastbound Dead End			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Jan 22, 19

LOCATION: Chino
NORTH & SOUTH: W Preserve Loop
EAST & WEST: Pine

PROJECT #: SC2056
LOCATION #: 29
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

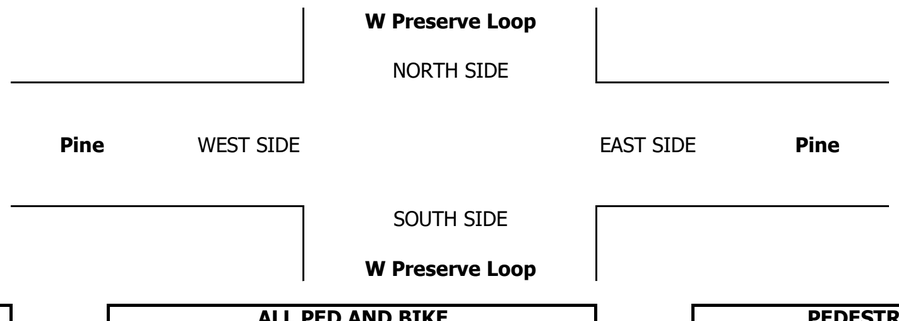
▲ N
◄ W E ►
S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND W Preserve Loop			SOUTHBOUND W Preserve Loop			EASTBOUND Pine			WESTBOUND Pine			
	LANES:	NL X	NT X	NR X	SL 1	ST X	SR 1	EL 1	ET 2	ER X	WL X	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	0	21	0	2	4	149	0	0	316	50	542
	7:15 AM	0	0	0	14	0	3	4	171	0	0	318	48	558
	7:30 AM	0	0	0	18	0	1	3	155	0	0	367	56	600
	7:45 AM	0	0	0	9	0	5	6	171	0	0	355	69	615
	8:00 AM	0	0	0	26	0	5	7	162	0	0	284	55	539
	8:15 AM	0	0	0	42	0	8	2	187	0	0	268	45	552
	8:30 AM	0	0	0	19	0	5	2	198	0	0	260	21	505
	8:45 AM	0	0	0	14	0	6	2	150	0	0	240	17	429
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	163	0	35	30	1,343	0	0	2,408	361	4,340
	APPROACH %	0%	0%	0%	82%	0%	18%	2%	98%	0%	0%	87%	13%	
	APP/DEPART	0	/	391	198	/	0	1,373	/	1,506	2,769	/	2,443	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	62	0	11	17	646	0	0	1,356	223	2,315
	APPROACH %	0%	0%	0%	85%	0%	15%	3%	97%	0%	0%	86%	14%	
	PEAK HR FACTOR		0.000			0.793			0.936			0.931		0.941
	APP/DEPART	0	/	240	73	/	0	663	/	708	1,579	/	1,367	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	30	0	3	7	302	0	0	103	12	457
	4:15 PM	0	0	0	34	0	2	2	317	0	0	108	9	472
	4:30 PM	0	0	0	31	0	3	4	347	0	0	117	11	513
	4:45 PM	0	0	0	22	0	6	8	351	0	0	119	9	515
	5:00 PM	0	0	0	28	0	5	4	369	0	0	121	10	537
	5:15 PM	0	0	0	31	0	7	6	362	0	0	124	18	548
	5:30 PM	0	0	0	30	0	2	6	355	0	0	106	13	512
	5:45 PM	0	0	0	26	0	4	4	352	0	0	109	16	511
	VOLUMES	0	0	0	232	0	32	41	2,755	0	0	907	98	4,065
	APPROACH %	0%	0%	0%	88%	0%	12%	1%	99%	0%	0%	90%	10%	
	APP/DEPART	0	/	139	264	/	0	2,796	/	2,987	1,005	/	939	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	0	0	0	112	0	21	22	1,429	0	0	481	48	2,113
	APPROACH %	0%	0%	0%	84%	0%	16%	2%	98%	0%	0%	91%	9%	
	PEAK HR FACTOR		0.000			0.875			0.973			0.931		0.964
	APP/DEPART	0	/	70	133	/	0	1,451	/	1,541	529	/	502	0

U-TURNS					
	NB	SB	EB	WB	TTL
	0	0	0	0	
AM	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
PM	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0

RTOR			
NRR X	SRR 0	ERR X	WRR 0
0	1	0	3
0	0	0	3
0	1	0	2
0	0	0	1
0	1	0	5
0	0	0	9
0	1	0	3
0	3	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	7	0	27
0	2	0	9
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	3
0	1	0	0
0	0	0	0
0	3	0	0
0	1	0	1
0	0	0	4
0	1	0	0
0	1	0	0
0	7	0	8
0	4	0	5



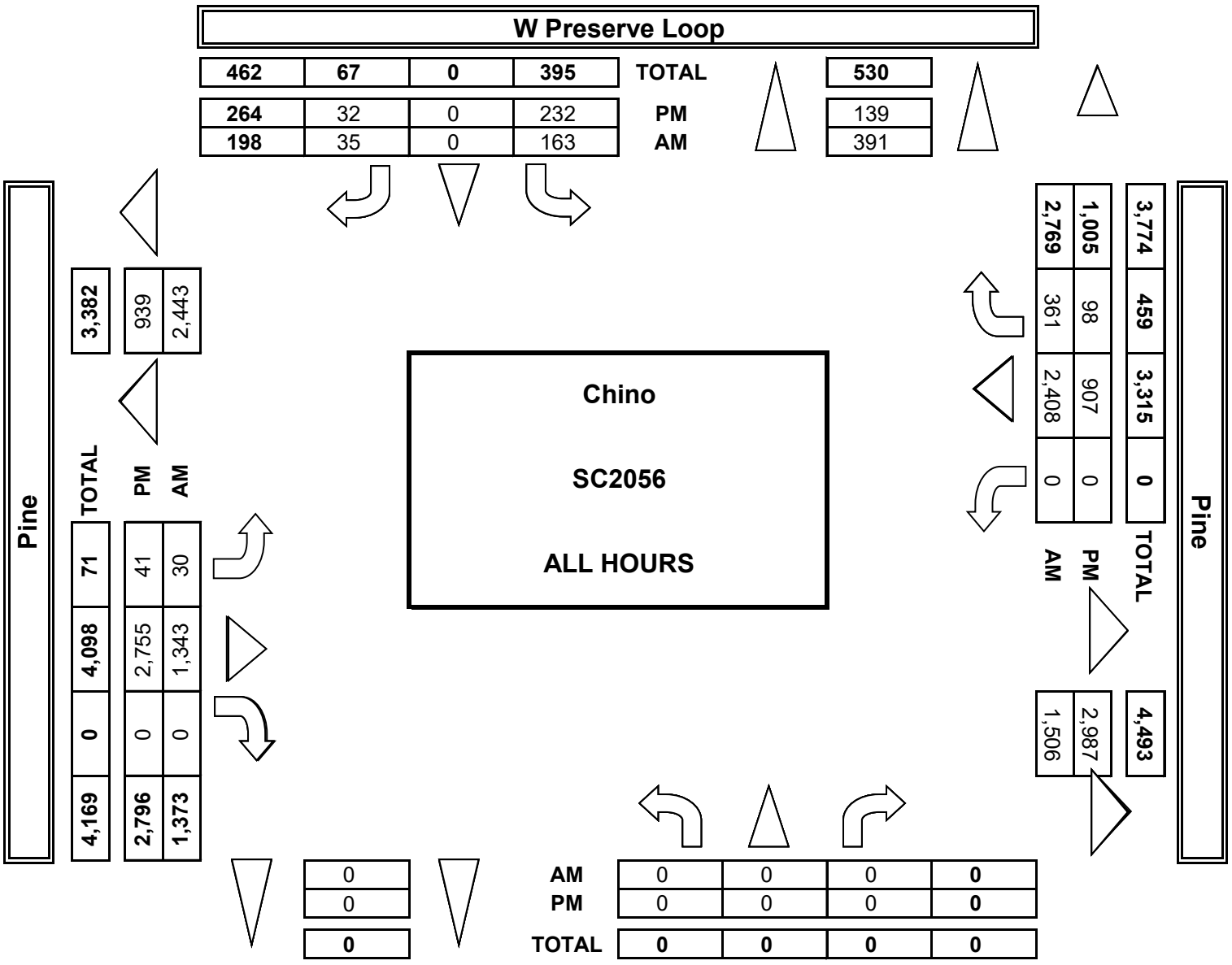
		ALL PED AND BIKE				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
	9:00 AM	0	0	0	0	0
	9:15 AM	0	0	0	0	0
	9:30 AM	0	0	0	0	0
	9:45 AM	0	0	0	0	0
	TOTAL	0	0	0	0	0
PM	3:00 PM	0	0	0	0	0
	3:15 PM	0	0	0	0	0
	3:30 PM	0	0	0	0	0
	3:45 PM	0	0	0	0	0
	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
	TOTAL	0	0	0	0	0

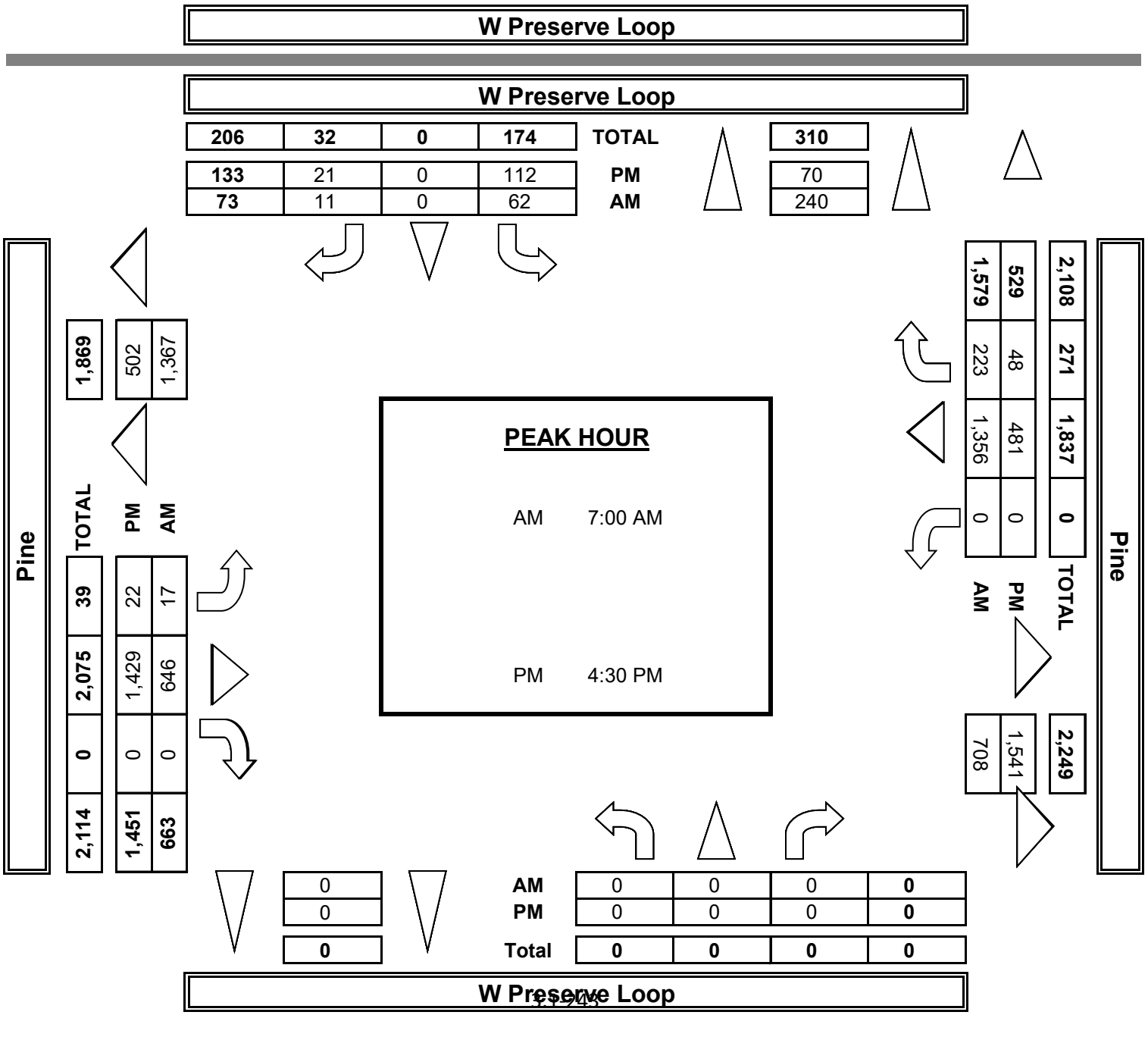
PEDESTRIAN CROSSINGS				
E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

BICYCLE CROSSINGS				
ES	WS	SS	NS	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	W Preserve Loop	LOCATION #:	29
	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND W Preserve Loop			SOUTHBOUND W Preserve Loop			EASTBOUND Pine			WESTBOUND Pine			
LANES:	NL X	NT X	NR X	SL 1	ST X	SR 1	EL 1	ET 2	ER X	WL X	WT 2	WR 0	TOTAL
7:00 AM	0	0	0	21	0	2	0	136	0	0	305	47	511
7:15 AM	0	0	0	11	0	3	4	156	0	0	310	42	526
7:30 AM	0	0	0	14	0	1	3	145	0	0	346	51	560
7:45 AM	0	0	0	9	0	5	6	158	0	0	330	68	576
8:00 AM	0	0	0	24	0	5	7	142	0	0	275	51	504
8:15 AM	0	0	0	39	0	8	2	174	0	0	257	43	523
8:30 AM	0	0	0	19	0	5	1	175	0	0	248	20	468
8:45 AM	0	0	0	13	0	6	2	140	0	0	231	16	408
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	150	0	35	25	1,226	0	0	2,302	338	4,076
APPROACH %	0%	0%	0%	81%	0%	19%	2%	98%	0%	0%	87%	13%	
APP/DEPART	0	/	363	185	/	0	1,251	/	1,376	2,640	/	2,337	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	0	0	55	0	11	13	595	0	0	1,291	208	2,173
APPROACH %	0%	0%	0%	83%	0%	17%	2%	98%	0%	0%	86%	14%	
PEAK HR FACTOR		0.000			0.717			0.927			0.942		0.943
APP/DEPART	0	/	221	66	/	0	608	/	650	1,499	/	1,302	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	29	0	3	6	277	0	0	99	12	426
4:15 PM	0	0	0	33	0	1	2	307	0	0	104	8	455
4:30 PM	0	0	0	30	0	3	3	329	0	0	115	10	490
4:45 PM	0	0	0	22	0	5	7	336	0	0	113	9	492
5:00 PM	0	0	0	28	0	5	4	359	0	0	119	10	525
5:15 PM	0	0	0	31	0	7	6	349	0	0	121	17	531
5:30 PM	0	0	0	30	0	2	6	348	0	0	104	13	503
5:45 PM	0	0	0	25	0	4	4	344	0	0	105	15	497
VOLUMES	0	0	0	228	0	30	38	2,649	0	0	880	94	3,919
APPROACH %	0%	0%	0%	88%	0%	12%	1%	99%	0%	0%	90%	10%	
APP/DEPART	0	/	132	258	/	0	2,687	/	2,877	974	/	910	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	0	0	0	114	0	18	20	1,400	0	0	449	55	2,056
APPROACH %	0%	0%	0%	86%	0%	14%	1%	99%	0%	0%	89%	11%	
PEAK HR FACTOR		0.000			0.868			0.978			0.913		0.968
APP/DEPART	0	/	75	132	/	0	1,420	/	1,514	504	/	467	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	W Preserve Loop	LOCATION #:	29
	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

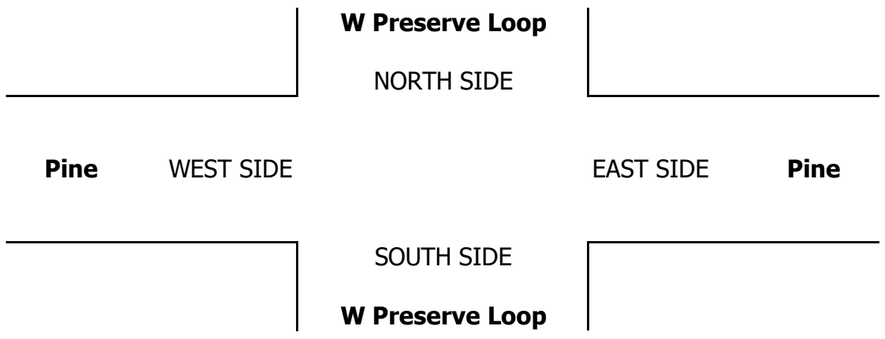
▲ N ◄ W E ► S ▼

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	W Preserve Loop			W Preserve Loop			Pine			Pine			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	X	X	X	1	X	1	1	2	X	X	2	0	

U-TURNS				
NB	SB	EB	WB	TTL

RTOR			
NRR	SRR	ERR	WRR
X	0	X	0

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS					RTOR			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
AM	7:00 AM	0	0	0	0	0	0	4	12	0	0	11	3	30	0	0	0	0	0	0	0	0	1
	7:15 AM	0	0	0	2	0	0	0	10	0	0	4	5	21	0	0	0	0	0	0	0	0	1
	7:30 AM	0	0	0	3	0	0	0	8	0	0	16	2	29	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	10	0	0	14	1	25	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	14	0	0	9	3	26	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	3	0	0	0	8	0	0	10	2	23	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	1	14	0	0	6	1	22	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	1	0	0	0	6	0	0	7	1	15	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	9	0	0	5	82	0	0	77	18	191	0	0	0	0	0	0	0	0	2
	APPROACH %	0%	0%	0%	100%	0%	0%	6%	94%	0%	0%	81%	19%										
	APP/DEPART	0	/	23	9	/	0	87	/	91	95	/	77	0									
	BEGIN PEAK HR	7:00 AM																					
	VOLUMES	0	0	0	5	0	0	4	40	0	0	45	11	105						0	0	0	2
	APPROACH %	0%	0%	0%	100%	0%	0%	9%	91%	0%	0%	80%	20%										
	PEAK HR FACTOR	0.000			0.417			0.688			0.778			0.875									
	APP/DEPART	0	/	15	5	/	0	44	/	45	56	/	45	0									
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	1	0	0	1	21	0	0	3	0	26	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	1	0	1	0	6	0	0	3	1	12	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	1	0	0	1	12	0	0	2	1	17	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	1	1	12	0	0	4	0	18	0	0	0	0	0	0	1	0	0
	5:00 PM	0	0	0	0	0	0	0	9	0	0	1	0	10	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	11	0	0	3	1	15	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	6	0	0	2	0	8	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	1	0	0	0	6	0	0	4	1	12	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	4	0	2	3	83	0	0	22	4	118	0	0	0	0	0	0	1	0	0
	APPROACH %	0%	0%	0%	67%	0%	33%	3%	97%	0%	0%	85%	15%										
	APP/DEPART	0	/	7	6	/	0	86	/	87	26	/	24	0									
	BEGIN PEAK HR	4:00 PM																					
	VOLUMES	0	0	0	3	0	2	3	51	0	0	12	2	73						0	1	0	0
	APPROACH %	0%	0%	0%	60%	0%	40%	6%	94%	0%	0%	86%	14%										
	PEAK HR FACTOR	0.000			0.625			0.614			0.875			0.702									
	APP/DEPART	0	/	5	5	/	0	54	/	54	14	/	14	0									



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	W Preserve Loop	LOCATION #:	29
	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND W Preserve Loop			SOUTHBOUND W Preserve Loop			EASTBOUND Pine			WESTBOUND Pine			
LANES:	NL X	NT X	NR X	SL 1	ST X	SR 1	EL 1	ET 2	ER X	WL X	WT 2	WR 0	TOTAL

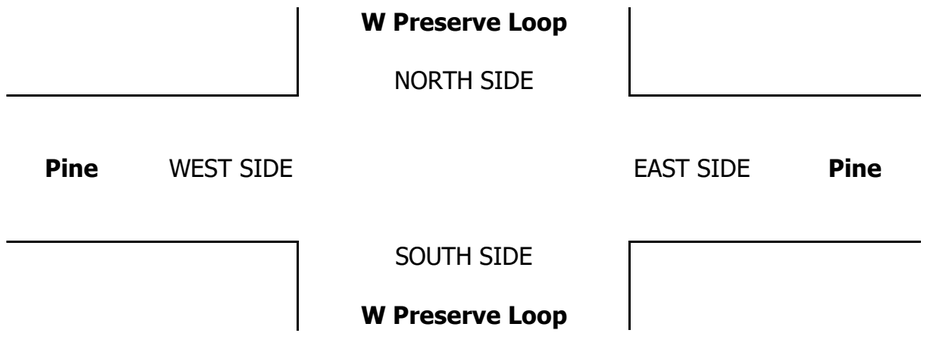
U-TURNS

NB	SB	EB	WB	TTL

RTOR

NRR	SRR	ERR	WRR
X	0	X	0

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS					RTOR			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
AM	7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	1	0	0	0	2	0	0	1	0	4	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	2	0	0	3	0	5	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	4	0	0	2	0	6	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	2	0	0	1	0	3	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	1	0	0	0	15	0	0	9	0	25	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%										
	APP/DEPART	0	/	0	1	/	0	15	/	16	9	/	9	0									
	BEGIN PEAK HR		7:45 AM																				
	VOLUMES	0	0	0	0	0	0	0	10	0	0	6	0	16						0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%										
	PEAK HR FACTOR		0.000			0.000			0.625			0.500		0.667									
	APP/DEPART	0	/	0	0	/	0	10	/	10	6	/	6	0									
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	10	0	0	1	0	11	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%										
	APP/DEPART	0	/	0	0	/	0	10	/	10	1	/	1	0									
	BEGIN PEAK HR		4:00 PM																				
	VOLUMES	0	0	0	0	0	0	0	7	0	0	1	0	8						0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%										
	PEAK HR FACTOR		0.000			0.000			0.438			0.250		0.500									
	APP/DEPART	0	/	0	0	/	0	7	/	7	1	/	1	0									



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	W Preserve Loop	LOCATION #:	29
	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND W Preserve Loop			SOUTHBOUND W Preserve Loop			EASTBOUND Pine			WESTBOUND Pine			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	X	X	X	1	X	1	1	2	X	X	2	0	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	1	0	0	2	1	4
7:30 AM	0	0	0	0	0	0	0	1	0	0	3	3	7
7:45 AM	0	0	0	0	0	0	0	0	0	0	6	0	6
8:00 AM	0	0	0	2	0	0	0	1	0	0	0	0	3
8:15 AM	0	0	0	0	0	0	0	4	0	0	0	0	4
8:30 AM	0	0	0	0	0	0	0	4	0	0	4	0	8
8:45 AM	0	0	0	0	0	0	0	2	0	0	1	0	3
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	2	0	0	0	13	0	0	16	4	35
APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	80%	20%	
APP/DEPART	0	/	4	2	/	0	13	/	15	20	/	16	0
BEGIN PEAK HR	7:45 AM												
VOLUMES	0	0	0	2	0	0	0	9	0	0	10	0	21
APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR	0.000			0.250			0.563			0.417			0.656
APP/DEPART	0	/	0	2	/	0	9	/	11	10	/	10	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	4	0	0	1	0	5
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:30 PM	0	0	0	0	0	0	0	4	0	0	0	0	4
4:45 PM	0	0	0	0	0	0	0	2	0	0	1	0	3
5:00 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
VOLUMES	0	0	0	0	0	0	0	13	0	0	4	0	17
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
APP/DEPART	0	/	0	0	/	0	13	/	13	4	/	4	0
BEGIN PEAK HR	4:00 PM												
VOLUMES	0	0	0	0	0	0	0	10	0	0	3	0	13
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR	0.000			0.000			0.625			0.750			0.650
APP/DEPART	0	/	0	0	/	0	10	/	10	3	/	3	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	W Preserve Loop	LOCATION #:	29
	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

AM ▲ N
PM ◄ W E ►
MD S ▼
OTHER
OTHER

	NORTHBOUND W Preserve Loop			SOUTHBOUND W Preserve Loop			EASTBOUND Pine			WESTBOUND Pine			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	X	X	X	1	X	1	1	2	X	X	2	0	

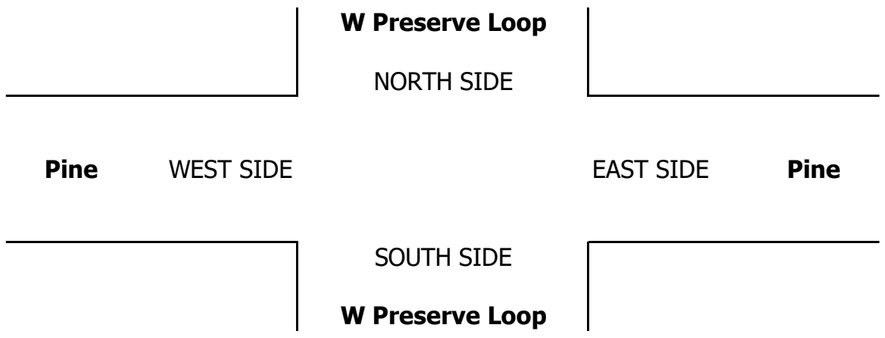
U-TURNS

NB	SB	EB	WB	TTL

RTOR

NRR	SRR	ERR	WRR
X	0	X	0

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS					RTOR			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0									
	BEGIN PEAK HR	7:00 AM																					
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0						0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
	PEAK HR FACTOR	0.000			0.000			0.000			0.000			0.000									
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0									
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0									
	BEGIN PEAK HR	3:00 PM																					
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0						0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
	PEAK HR FACTOR	0.000			0.000			0.000			0.000			0.000									
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0									



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	W Preserve Loop	LOCATION #:	29
	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER

N ▲ | ◄ W | E ► | S ▼

	NORTHBOUND W Preserve Loop			SOUTHBOUND W Preserve Loop			EASTBOUND Pine			WESTBOUND Pine			
LANES:	NL X	NT X	NR X	SL 1	ST X	SR 1	EL 1	ET 2	ER X	WL X	WT 2	WR 0	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	2	0	0	1	0	3
7:30 AM	0	0	0	1	0	0	0	1	0	0	1	0	3
7:45 AM	0	0	0	0	0	0	0	1	0	0	2	0	3
8:00 AM	0	0	0	0	0	0	0	2	0	0	0	1	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	1	0	0	0	7	0	0	4	1	13
APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	80%	20%	
APP/DEPART	0	/	1	1	/	0	7	/	8	5	/	4	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	0	0	0	1	0	0	0	6	0	0	4	1	12
APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	80%	20%	
PEAK HR FACTOR		0.000			0.250			0.750			0.625		1.000
APP/DEPART	0	/	1	1	/	0	6	/	7	5	/	4	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR		3:00 PM											
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wed, Feb 6, 19

LOCATION: Chino
NORTH & SOUTH: Main
EAST & WEST: Kimball

PROJECT #: SC2081
LOCATION #: 5
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W E ►
S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Main			SOUTHBOUND Main			EASTBOUND Kimball			WESTBOUND Kimball			
	LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 1	WT 1	WR X	TOTAL
AM	7:00 AM	35	0	18	0	0	0	0	69	8	4	151	0	285
	7:15 AM	25	0	15	0	0	0	0	69	14	5	169	0	297
	7:30 AM	35	0	18	0	0	0	0	71	20	11	180	0	335
	7:45 AM	30	0	11	0	0	0	0	52	11	8	155	0	267
	8:00 AM	53	0	36	0	0	0	0	85	43	43	129	0	389
	8:15 AM	66	0	60	0	0	0	0	76	36	20	117	0	375
	8:30 AM	36	0	19	0	0	0	0	62	8	8	104	0	237
	8:45 AM	18	0	7	0	0	0	0	70	12	5	114	0	226
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	298	0	184	0	0	0	0	554	152	104	1,119	0	2,411
	APPROACH %	62%	0%	38%	0%	0%	0%	0%	78%	22%	9%	91%	0%	
	APP/DEPART	482	/	0	0	/	257	706	/	738	1,223	/	1,416	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	184	0	125	0	0	0	0	284	110	82	581	0	1,366
	APPROACH %	60%	0%	40%	0%	0%	0%	0%	72%	28%	12%	88%	0%	
	PEAK HR FACTOR		0.613			0.000			0.770			0.868		0.878
	APP/DEPART	309	/	0	0	/	193	394	/	409	663	/	764	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	25	0	8	0	0	0	0	140	20	6	58	0	257
	4:15 PM	21	0	7	0	0	0	0	157	19	16	64	0	284
	4:30 PM	16	0	7	0	0	0	0	194	21	8	102	0	348
	4:45 PM	25	0	9	0	0	0	0	207	23	14	72	0	350
	5:00 PM	16	0	13	0	0	0	0	197	29	9	92	0	356
	5:15 PM	22	0	9	0	0	0	0	183	29	24	80	0	347
	5:30 PM	12	0	12	0	0	0	0	188	41	25	85	0	363
	5:45 PM	13	0	6	0	0	0	0	208	32	18	83	0	360
	VOLUMES	150	0	71	0	0	0	0	1,474	214	120	636	0	2,665
	APPROACH %	68%	0%	32%	0%	0%	0%	0%	87%	13%	16%	84%	0%	
	APP/DEPART	221	/	0	0	/	334	1,688	/	1,545	756	/	786	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	63	0	40	0	0	0	0	776	131	76	340	0	1,426
	APPROACH %	61%	0%	39%	0%	0%	0%	0%	86%	14%	18%	82%	0%	
	PEAK HR FACTOR		0.831			0.000			0.945			0.945		0.982
	APP/DEPART	103	/	0	0	/	207	907	/	816	416	/	403	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	X	0	X
10	0	4	0
12	0	1	0
11	0	7	0
7	0	3	0
16	0	8	0
29	0	5	0
10	0	0	0
5	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
100	0	29	0
63	0	23	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
7	0	0	0
3	0	1	0
3	0	1	0
6	0	4	0
8	0	0	0
3	0	1	0
10	0	2	0
3	0	3	0
43	0	12	0
24	0	6	0

Main

NORTH SIDE

Kimball WEST SIDE EAST SIDE **Kimball**

SOUTH SIDE

Main

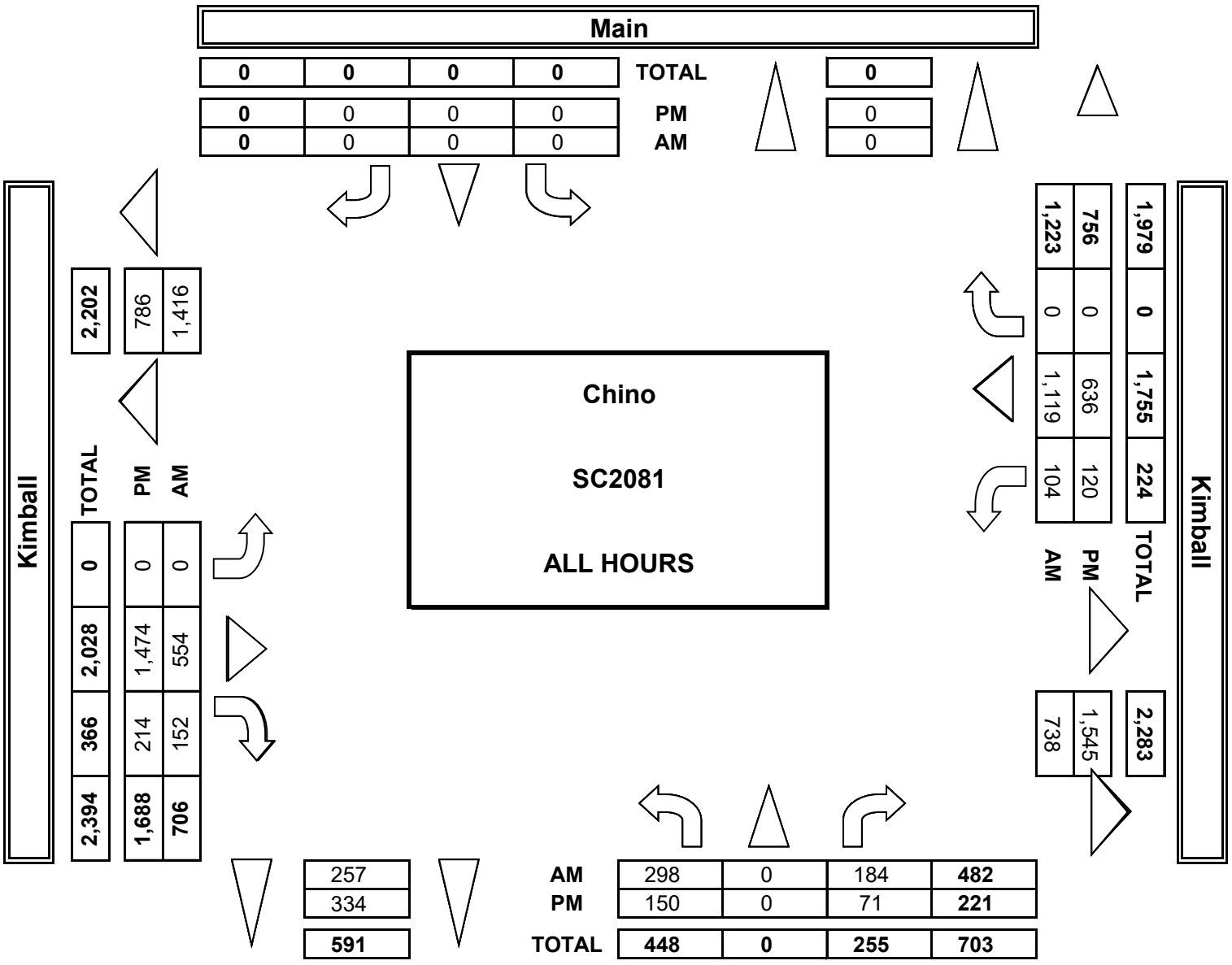
		ALL PED AND BIKE				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	1	0	1
	7:30 AM	0	0	1	0	1
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	2	2
	8:45 AM	0	0	1	0	1
	9:00 AM	0	0	0	0	0
	9:15 AM	0	0	0	0	0
	9:30 AM	0	0	0	0	0
	9:45 AM	0	0	0	0	0
	TOTAL	0	0	3	2	5
PM	3:00 PM	0	0	0	0	0
	3:15 PM	0	0	0	0	0
	3:30 PM	0	0	0	0	0
	3:45 PM	0	0	0	0	0
	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	1	0	1
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
	TOTAL	0	0	1	0	1

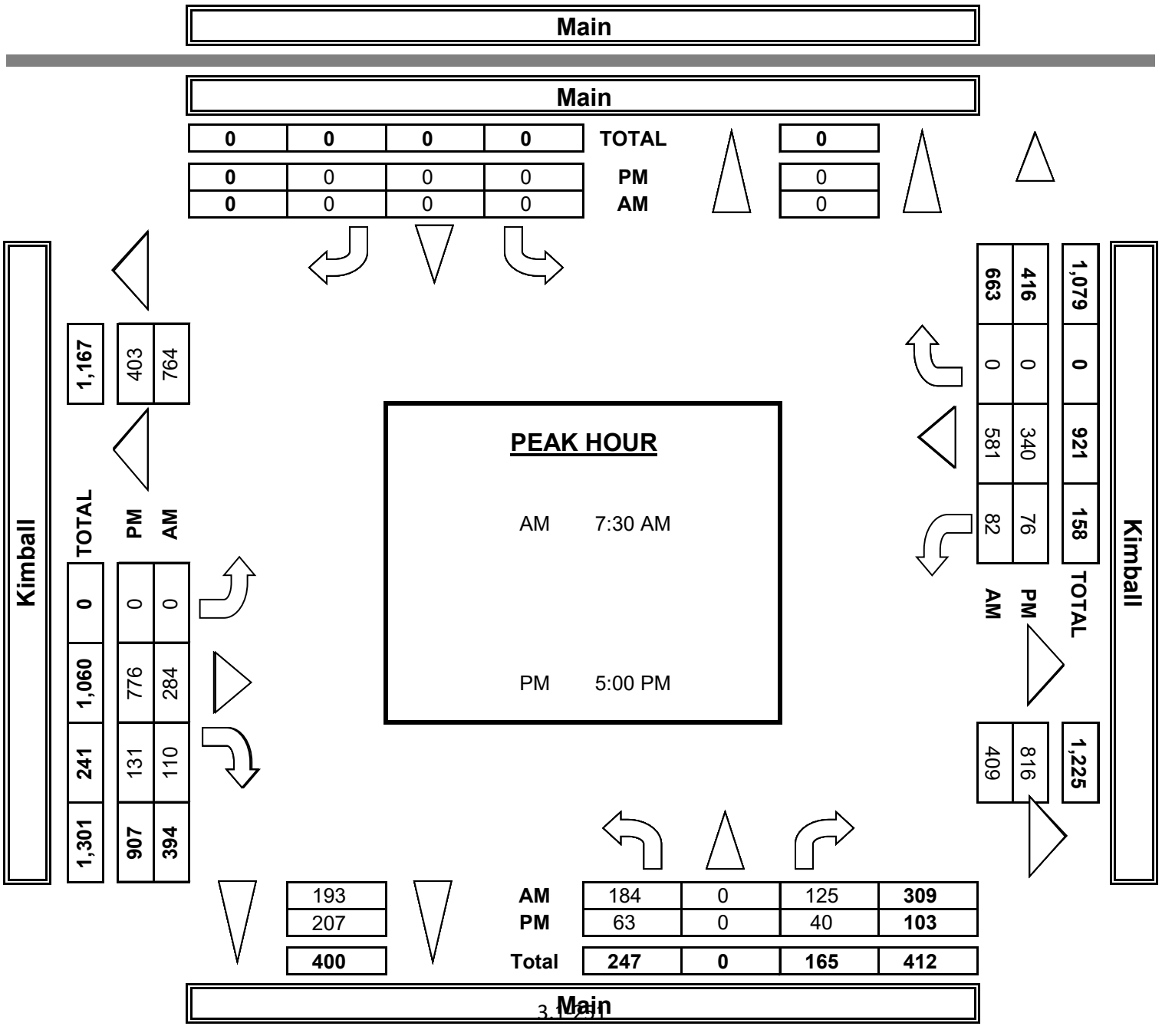
PEDESTRIAN CROSSINGS				
E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
0	0	0	0	0
0	0	1	0	1
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	3	0	3
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1

BICYCLE CROSSINGS				
ES	WS	SS	NS	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	2	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	2	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
2/6/19	LOCATION:	Chino	PROJECT #:	SC2081
WEDNESDAY	NORTH & SOUTH:	Main	LOCATION #:	5
	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Main			SOUTHBOUND Main			EASTBOUND Kimball			WESTBOUND Kimball			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	X	1	X	X	X	X	2	0	1	1	X	
7:00 AM	35	0	16	0	0	0	0	60	7	2	144	0	264
7:15 AM	23	0	14	0	0	0	0	56	12	4	164	0	273
7:30 AM	35	0	15	0	0	0	0	62	20	9	166	0	307
7:45 AM	29	0	9	0	0	0	0	49	10	8	148	0	253
8:00 AM	53	0	35	0	0	0	0	82	43	43	123	0	379
8:15 AM	64	0	60	0	0	0	0	63	34	20	112	0	353
8:30 AM	36	0	18	0	0	0	0	52	8	7	98	0	219
8:45 AM	18	0	6	0	0	0	0	63	12	3	109	0	211
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	293	0	173	0	0	0	0	487	146	96	1,064	0	2,259
APPROACH %	63%	0%	37%	0%	0%	0%	0%	77%	23%	8%	92%	0%	
APP/DEPART	466	/	0	0	/	242	633	/	660	1,160	/	1,357	0
BEGIN PEAK HR	7:30 AM												
VOLUMES	181	0	119	0	0	0	0	256	107	80	549	0	1,292
APPROACH %	60%	0%	40%	0%	0%	0%	0%	71%	29%	13%	87%	0%	
PEAK HR FACTOR	0.605			0.000			0.726			0.899			0.852
APP/DEPART	300	/	0	0	/	187	363	/	375	629	/	730	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	24	0	8	0	0	0	0	132	20	6	52	0	242
4:15 PM	20	0	7	0	0	0	0	146	19	16	58	0	266
4:30 PM	16	0	7	0	0	0	0	187	21	7	95	0	333
4:45 PM	24	0	8	0	0	0	0	196	23	14	66	0	331
5:00 PM	16	0	13	0	0	0	0	189	29	9	85	0	341
5:15 PM	21	0	8	0	0	0	0	178	29	24	73	0	333
5:30 PM	12	0	12	0	0	0	0	180	41	24	81	0	350
5:45 PM	13	0	5	0	0	0	0	200	31	18	80	0	347
VOLUMES	146	0	68	0	0	0	0	1,408	213	118	590	0	2,543
APPROACH %	68%	0%	32%	0%	0%	0%	0%	87%	13%	17%	83%	0%	
APP/DEPART	214	/	0	0	/	331	1,621	/	1,476	708	/	736	0
BEGIN PEAK HR	5:00 PM												
VOLUMES	62	0	38	0	0	0	0	747	130	75	319	0	1,371
APPROACH %	62%	0%	38%	0%	0%	0%	0%	85%	15%	19%	81%	0%	
PEAK HR FACTOR	0.862			0.000			0.949			0.938			0.979
APP/DEPART	100	/	0	0	/	205	877	/	785	394	/	381	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
2/6/19	LOCATION:	Chino	PROJECT #:	SC2081
WEDNESDAY	NORTH & SOUTH:	Main	LOCATION #:	5
	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Main			SOUTHBOUND Main			EASTBOUND Kimball			WESTBOUND Kimball			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	X	1	X	X	X	X	2	0	1	1	X	

U-TURNS

NB	SB	EB	WB	TTL

RTOR

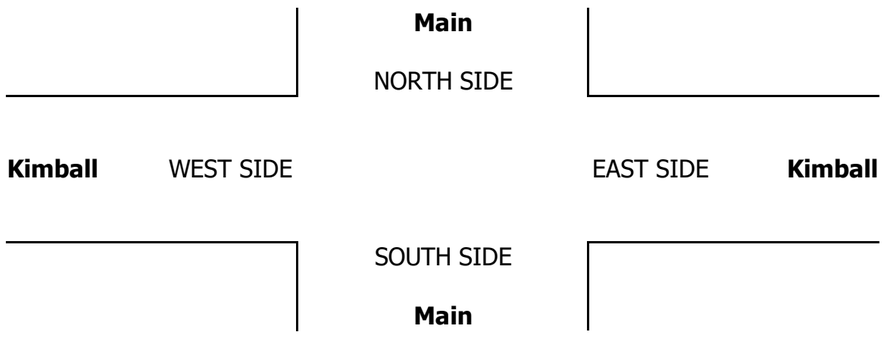
NRR	SRR	ERR	WRR
0	X	0	X

AM

7:00 AM	0	0	2	0	0	0	0	7	1	2	3	0	15	0 0 0 0 0	2 0 0 0
7:15 AM	1	0	1	0	0	0	0	9	0	1	4	0	16	0 0 0 0 0	1 0 0 0
7:30 AM	0	0	2	0	0	0	0	4	0	2	11	0	19	0 0 0 0 0	1 0 0 0
7:45 AM	0	0	1	0	0	0	0	0	0	0	5	0	6	0 0 0 0 0	1 0 0 0
8:00 AM	0	0	0	0	0	0	0	2	0	0	5	0	7	0 0 0 0 0	0 0 0 0
8:15 AM	1	0	0	0	0	0	0	13	2	0	3	0	19	1 0 0 0 1	0 0 0 0
8:30 AM	0	0	1	0	0	0	0	5	0	1	5	0	12	0 0 0 0 0	1 0 0 0
8:45 AM	0	0	1	0	0	0	0	4	0	2	3	0	10	0 0 0 0 0	1 0 0 0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0 0 0 0	0 0 0 0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0 0 0 0	0 0 0 0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0 0 0 0	0 0 0 0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0 0 0 0	0 0 0 0
VOLUMES	2	0	8	0	0	0	0	44	3	8	39	0	104	1 0 0 0 1	7 0 0 0
APPROACH %	20%	0%	80%	0%	0%	0%	0%	94%	6%	17%	83%	0%			
APP/DEPART	10	/	0	0	/	12	47	/	52	47	/	40	0		
BEGIN PEAK HR	7:00 AM														
VOLUMES	1	0	6	0	0	0	0	20	1	5	23	0	56		5 0 0 0
APPROACH %	14%	0%	86%	0%	0%	0%	0%	95%	5%	18%	82%	0%			
PEAK HR FACTOR	0.875			0.000			0.583			0.538			0.737		
APP/DEPART	7	/	0	0	/	6	21	/	26	28	/	24	0		

PM

03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0 0 0 0	0 0 0 0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0 0 0 0	0 0 0 0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0 0 0 0	0 0 0 0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0 0 0 0	0 0 0 0
4:00 PM	0	0	0	0	0	0	0	5	0	0	3	0	8	0 0 0 0 0	0 0 0 0
4:15 PM	1	0	0	0	0	0	0	8	0	0	3	0	12	0 0 0 0 0	0 0 0 0
4:30 PM	0	0	0	0	0	0	0	4	0	1	5	0	10	0 0 0 0 0	0 0 0 0
4:45 PM	1	0	1	0	0	0	0	11	0	0	2	0	15	0 0 0 0 0	1 0 0 0
5:00 PM	0	0	0	0	0	0	0	6	0	0	3	0	9	0 0 0 0 0	0 0 0 0
5:15 PM	1	0	1	0	0	0	0	5	0	0	1	0	8	0 0 0 0 0	0 0 0 0
5:30 PM	0	0	0	0	0	0	0	2	0	1	1	0	4	0 0 0 0 0	0 0 0 0
5:45 PM	0	0	1	0	0	0	0	7	1	0	3	0	12	0 0 0 0 0	1 0 1 0
VOLUMES	3	0	3	0	0	0	0	48	1	2	21	0	78	0 0 0 0 0	2 0 1 0
APPROACH %	50%	0%	50%	0%	0%	0%	0%	98%	2%	9%	91%	0%			
APP/DEPART	6	/	0	0	/	3	49	/	51	23	/	24	0		
BEGIN PEAK HR	4:15 PM														
VOLUMES	2	0	1	0	0	0	0	29	0	1	13	0	46		1 0 0 0
APPROACH %	67%	0%	33%	0%	0%	0%	0%	100%	0%	7%	93%	0%			
PEAK HR FACTOR	0.375			0.000			0.659			0.583			0.767		
APP/DEPART	3	/	0	0	/	1	29	/	30	14	/	15	0		



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
2/6/19	LOCATION:	Chino	PROJECT #:	SC2081
WEDNESDAY	NORTH & SOUTH:	Main	LOCATION #:	5
	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Main			SOUTHBOUND Main			EASTBOUND Kimball			WESTBOUND Kimball			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	X	1	X	X	X	X	2	0	1	1	X	

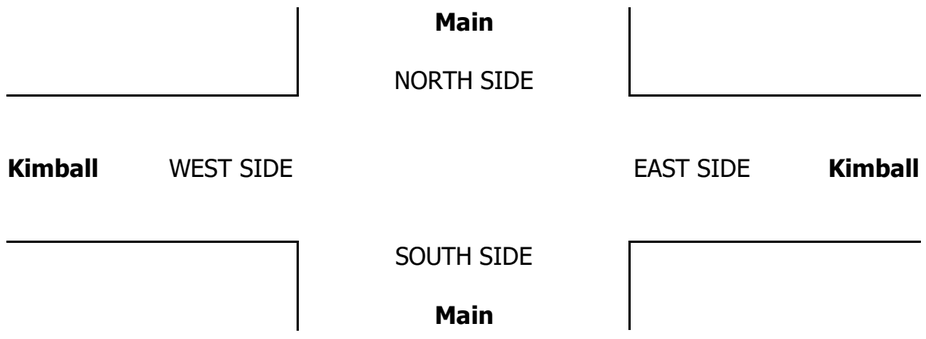
U-TURNS

NB	SB	EB	WB	TTL

RTOR

NRR	SRR	ERR	WRR
0	X	0	X

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS					RTOR			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
AM	7:00 AM	0	0	0	0	0	0	0	1	0	0	2	0	3	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	6	0	0	3	0	9	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%										
	APP/DEPART	0	/	0	0	/	0	6	/	6	3	/	3	0									
	BEGIN PEAK HR		7:00 AM																				
	VOLUMES	0	0	0	0	0	0	0	3	0	0	3	0	6						0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%										
	PEAK HR FACTOR		0.000			0.000			0.375			0.375		0.500									
	APP/DEPART	0	/	0	0	/	0	3	/	3	3	/	3	0									
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	1	0	0	2	0	3	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	1	0	0	2	0	3	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	3	0	0	8	0	11	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%										
	APP/DEPART	0	/	0	0	/	0	3	/	3	8	/	8	0									
	BEGIN PEAK HR		4:45 PM																				
	VOLUMES	0	0	0	0	0	0	0	2	0	0	6	0	8						0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%										
	PEAK HR FACTOR		0.000			0.000			0.500			0.750		0.667									
	APP/DEPART	0	/	0	0	/	0	2	/	2	6	/	6	0									



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
2/6/19	LOCATION:	Chino	PROJECT #:	SC2081
WEDNESDAY	NORTH & SOUTH:	Main	LOCATION #:	5
	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 4:
4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Main			SOUTHBOUND Main			EASTBOUND Kimball			WESTBOUND Kimball			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	X	1	X	X	X	X	2	0	1	1	X	

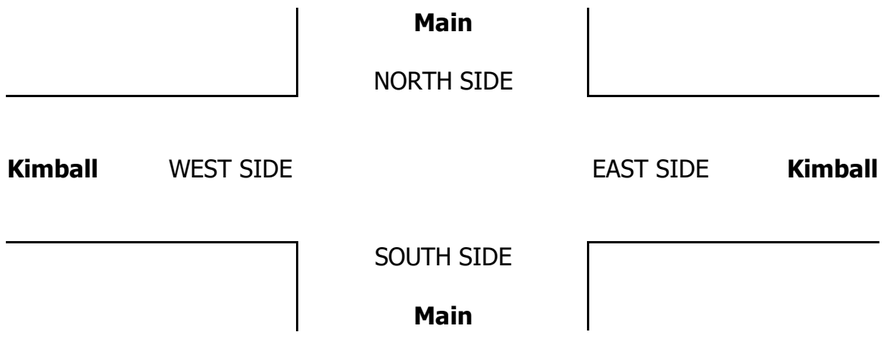
U-TURNS

NB	SB	EB	WB	TTL

RTOR

NRR	SRR	ERR	WRR
0	X	0	X

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS					RTOR			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0
	7:15 AM	1	0	0	0	0	0	0	1	1	0	1	0	4	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	4	0	0	1	0	5	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	1	0	0	0	0	3	0	0	2	0	6	0	0	0	0	0	1	0	0	0
	8:00 AM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	4	0	0	1	0	5	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	1	0	0	2	0	3	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	1	0	1	0	0	0	0	14	1	0	12	0	29	0	0	0	0	0	1	0	0	0
	APPROACH %	50%	0%	50%	0%	0%	0%	0%	93%	7%	0%	100%	0%										
	APP/DEPART	2	/	0	0	/	1	15	/	15	12	/	13	0									
	BEGIN PEAK HR		7:00 AM																				
	VOLUMES	1	0	1	0	0	0	0	9	1	0	5	0	17						1	0	0	0
	APPROACH %	50%	0%	50%	0%	0%	0%	0%	90%	10%	0%	100%	0%										
	PEAK HR FACTOR		0.500			0.000			0.625			0.625		0.708									
	APP/DEPART	2	/	0	0	/	1	10	/	10	5	/	6	0									
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	3	0	0	2	0	5	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	2	0	0	2	0	4	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	3	0	0	1	0	4	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	1	0	0	2	0	3	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	5	0	0	1	0	6	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	15	0	0	16	0	31	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%										
	APP/DEPART	0	/	0	0	/	0	15	/	15	16	/	16	0									
	BEGIN PEAK HR		4:00 PM																				
	VOLUMES	0	0	0	0	0	0	0	6	0	0	11	0	17						0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%										
	PEAK HR FACTOR		0.000			0.000			0.300			0.688		0.708									
	APP/DEPART	0	/	0	0	/	0	6	/	6	11	/	11	0									



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
2/6/19	LOCATION:	Chino	PROJECT #:	SC2081
WEDNESDAY	NORTH & SOUTH:	Main	LOCATION #:	5
	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Main			SOUTHBOUND Main			EASTBOUND Kimball			WESTBOUND Kimball			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	X	1	X	X	X	X	2	0	1	1	X	

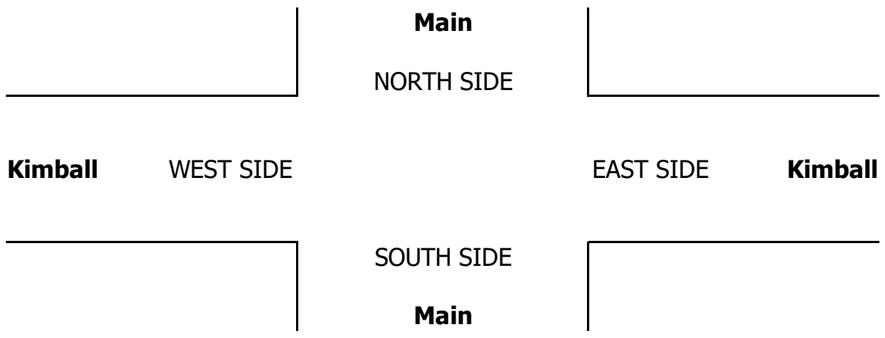
U-TURNS

NB	SB	EB	WB	TTL

RTOR

NRR	SRR	ERR	WRR
0	X	0	X

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS					RTOR			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0									
	BEGIN PEAK HR	7:00 AM																					
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0						0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
	PEAK HR FACTOR	0.000			0.000			0.000			0.000			0.000									
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0									
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0									
	BEGIN PEAK HR	3:00 PM																					
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0						0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
	PEAK HR FACTOR	0.000			0.000			0.000			0.000			0.000									
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0									



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
2/6/19	LOCATION:	Chino	PROJECT #:	SC2081
WEDNESDAY	NORTH & SOUTH:	Main	LOCATION #:	5
	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Main			SOUTHBOUND Main			EASTBOUND Kimball			WESTBOUND Kimball			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:		1	X	1	X	X	X	X	2	0	1	1	X	
AM	7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	7:15 AM	0	0	0	0	0	0	0	1	1	0	0	0	2
	7:30 AM	0	0	1	0	0	0	0	1	0	0	1	0	3
	7:45 AM	1	0	0	0	0	0	0	0	1	0	0	0	2
	8:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
	8:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	2	0	2	0	0	0	0	3	2	0	1	0	10
	APPROACH %	50%	0%	50%	0%	0%	0%	0%	60%	40%	0%	100%	0%	
	APP/DEPART	4	/	0	0	/	2	5	/	5	1	/	3	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	1	0	2	0	0	0	0	2	2	0	1	0	8
	APPROACH %	33%	0%	67%	0%	0%	0%	0%	50%	50%	0%	100%	0%	
	PEAK HR FACTOR		0.750			0.000			0.500			0.250		0.667
	APP/DEPART	3	/	0	0	/	2	4	/	4	1	/	2	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	1	0	0	0	0	0	0	0	0	0	1	0	2
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	1	0	0	0	0	0	0	0	0	0	1	0	2
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	
	APP/DEPART	1	/	0	0	/	0	0	/	0	1	/	2	0
	BEGIN PEAK HR		3:15 PM											
	VOLUMES	1	0	0	0	0	0	0	0	0	0	1	0	2
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.250			0.000			0.000			0.250		0.250
	APP/DEPART	1	/	0	0	/	0	0	/	0	1	/	2	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wed, Feb 6, 19

LOCATION: Chino
NORTH & SOUTH: Flight
EAST & WEST: Kimball

PROJECT #: SC2081
LOCATION #: 6
CONTROL: STOP N/S

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N
◄ W E ►
S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Flight			SOUTHBOUND Flight			EASTBOUND Kimball			WESTBOUND Kimball			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 2	ER 0	WL 1	WT 1	WR 0	TOTAL
AM	7:00 AM	0	2	2	1	0	12	30	52	3	0	128	15	245
	7:15 AM	0	3	1	4	1	14	33	49	4	0	152	25	286
	7:30 AM	2	3	8	4	1	31	27	51	7	0	165	29	328
	7:45 AM	2	3	2	4	1	17	27	35	3	4	143	31	272
	8:00 AM	0	2	5	4	6	31	41	66	5	5	142	14	321
	8:15 AM	2	3	6	9	2	21	48	87	6	6	118	17	325
	8:30 AM	0	3	6	6	2	20	38	43	2	2	91	21	234
	8:45 AM	3	3	2	9	1	16	23	52	1	2	106	14	232
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	9	22	32	41	14	162	267	435	31	19	1,045	166	2,243
	APPROACH %	14%	35%	51%	19%	6%	75%	36%	59%	4%	2%	85%	13%	
	APP/DEPART	63	/	455	217	/	64	733	/	508	1,230	/	1,216	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	6	11	21	21	10	100	143	239	21	15	568	91	1,246
	APPROACH %	16%	29%	55%	16%	8%	76%	35%	59%	5%	2%	84%	14%	
	PEAK HR FACTOR		0.731			0.799			0.715			0.869		0.950
	APP/DEPART	38	/	245	131	/	46	403	/	281	674	/	674	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	2	1	3	9	3	27	27	107	7	4	37	15	242
	4:15 PM	0	1	3	11	5	34	23	127	11	5	46	4	270
	4:30 PM	5	1	4	21	6	35	32	154	12	1	68	5	344
	4:45 PM	1	2	4	12	3	28	33	191	7	2	56	5	344
	5:00 PM	0	3	4	16	6	43	38	170	9	4	54	11	358
	5:15 PM	0	4	6	16	2	47	28	151	6	5	56	7	328
	5:30 PM	1	3	7	13	2	28	23	169	10	2	78	8	344
	5:45 PM	0	3	4	12	5	39	32	173	11	4	62	14	359
	VOLUMES	9	18	35	110	32	281	236	1,242	73	27	457	69	2,589
	APPROACH %	15%	29%	56%	26%	8%	66%	15%	80%	5%	5%	83%	12%	
	APP/DEPART	62	/	323	423	/	132	1,551	/	1,387	553	/	747	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	1	13	21	57	15	157	121	663	36	15	250	40	1,389
	APPROACH %	3%	37%	60%	25%	7%	69%	15%	81%	4%	5%	82%	13%	
	PEAK HR FACTOR		0.795			0.881			0.945			0.866		0.967
	APP/DEPART	35	/	174	229	/	66	820	/	741	305	/	408	0

U-TURNS

AM	NB	SB	EB	WB	TTL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
9:00 AM	0	0	0	0	0
9:15 AM	0	0	0	0	0
9:30 AM	0	0	0	0	0
9:45 AM	0	0	0	0	0
VOLUMES	0	0	0	0	0
PM					
03:00 PM	0	0	0	0	0
3:15 PM	0	0	0	0	0
3:30 PM	0	0	0	0	0
3:45 PM	0	0	0	0	0
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
VOLUMES	0	0	0	0	0

RTOR

AM	NRR	SRR	ERR	WRR
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
VOLUMES	0	0	0	0
PM				
03:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
VOLUMES	0	0	0	0

Flight

NORTH SIDE

Kimball WEST SIDE EAST SIDE **Kimball**

SOUTH SIDE

Flight

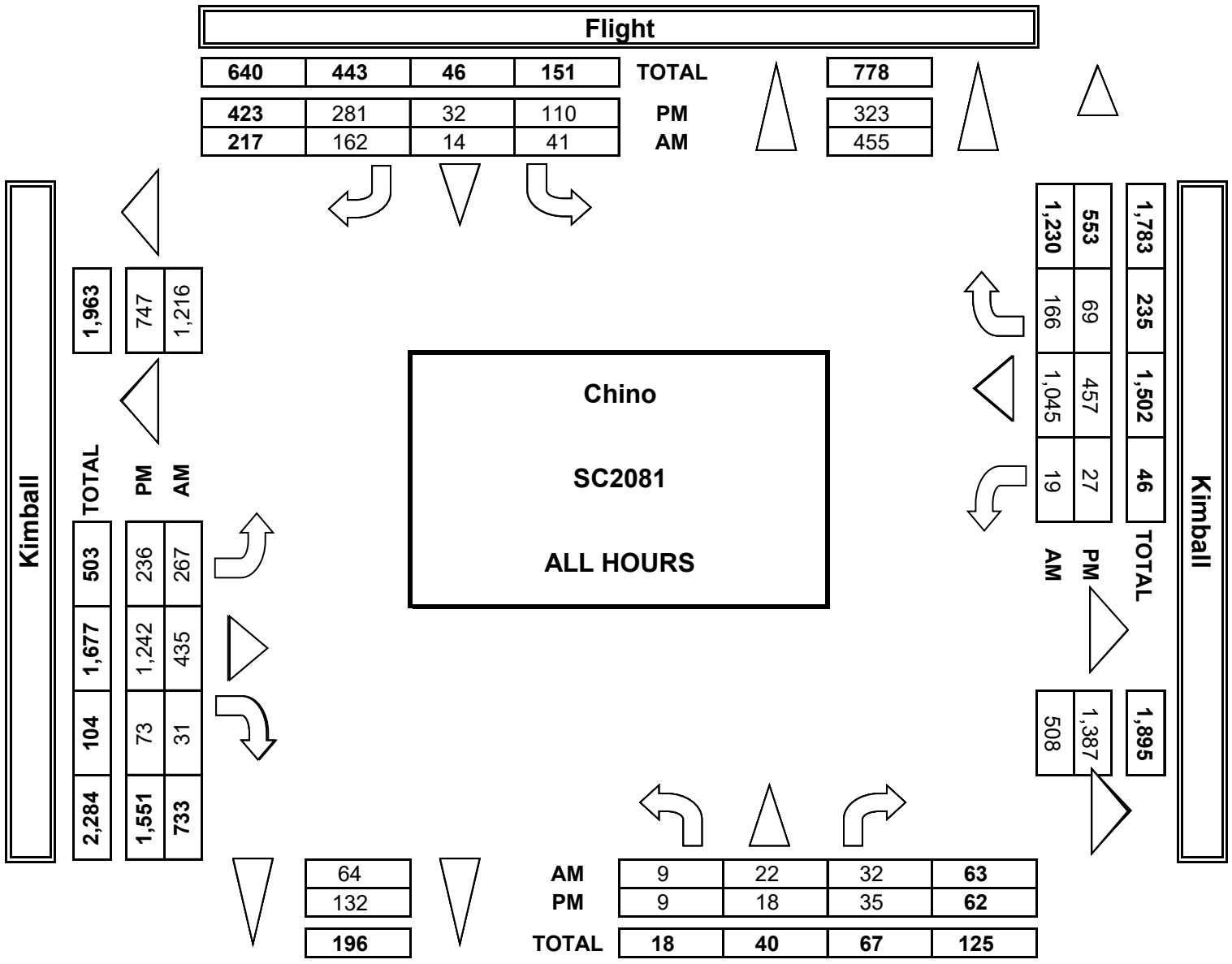
		ALL PED AND BIKE				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
AM	7:00 AM	0	0	1	0	1
	7:15 AM	0	1	1	0	2
	7:30 AM	0	0	1	0	1
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	1	0	1
	8:30 AM	0	0	0	2	2
	8:45 AM	0	0	1	0	1
	9:00 AM	0	0	0	0	0
	9:15 AM	0	0	0	0	0
	9:30 AM	0	0	0	0	0
	9:45 AM	0	0	0	0	0
	TOTAL	0	1	5	2	8
PM	3:00 PM	0	0	0	0	0
	3:15 PM	0	0	0	0	0
	3:30 PM	0	0	0	0	0
	3:45 PM	0	0	0	0	0
	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
	TOTAL	0	0	0	0	0

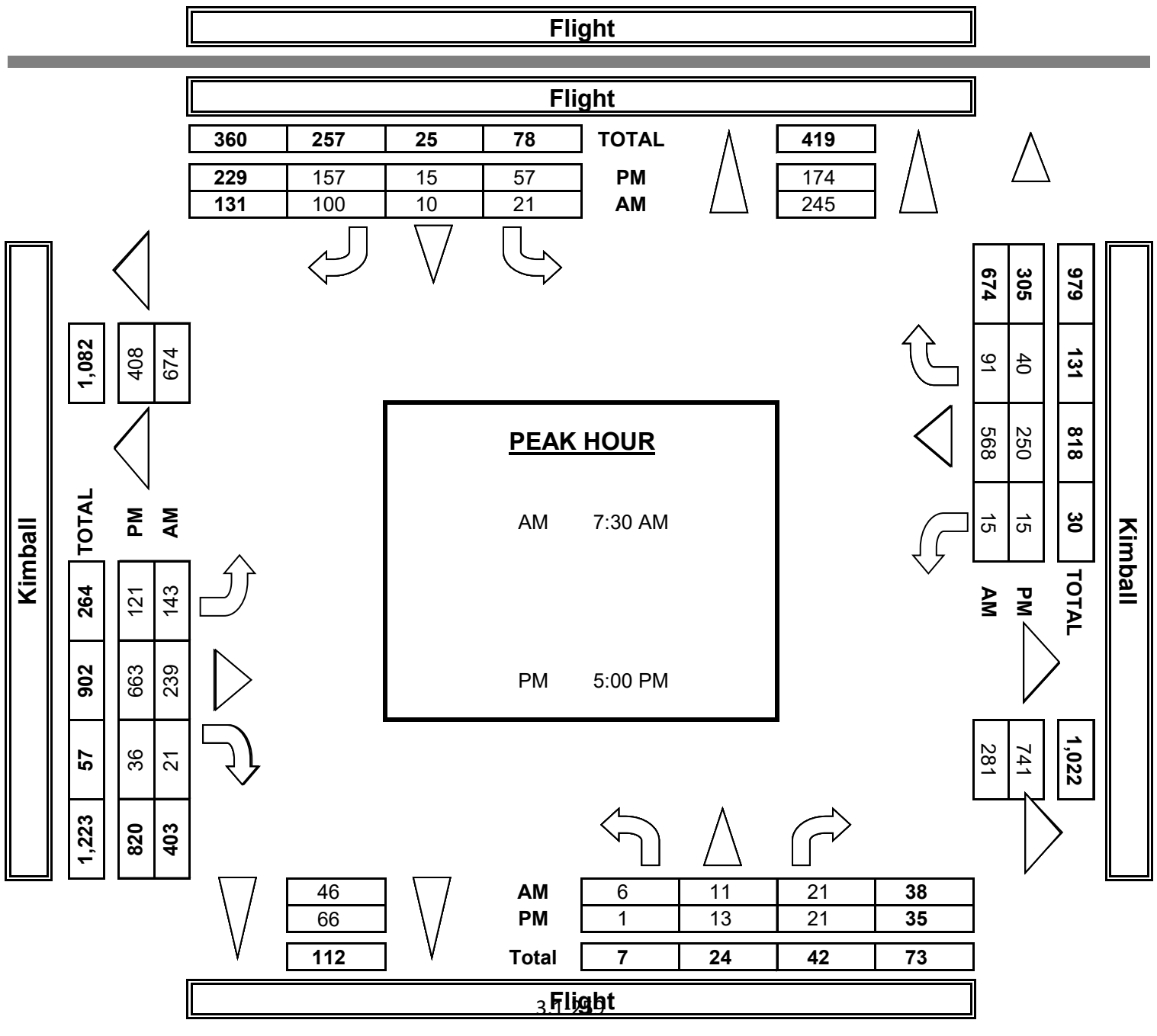
		PEDESTRIAN CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
AM	7:00 AM	0	0	1	0	1
	7:15 AM	0	0	1	0	1
	7:30 AM	0	0	1	0	1
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	1	0	1
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
	9:00 AM	0	0	0	0	0
	9:15 AM	0	0	0	0	0
	9:30 AM	0	0	0	0	0
	9:45 AM	0	0	0	0	0
	TOTAL	0	0	4	0	4
PM	3:00 PM	0	0	0	0	0
	3:15 PM	0	0	0	0	0
	3:30 PM	0	0	0	0	0
	3:45 PM	0	0	0	0	0
	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
	TOTAL	0	0	0	0	0

		BICYCLE CROSSINGS				
		ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	1	0	0	1
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	2	2
	8:45 AM	0	0	1	0	1
	9:00 AM	0	0	0	0	0
	9:15 AM	0	0	0	0	0
	9:30 AM	0	0	0	0	0
	9:45 AM	0	0	0	0	0
	TOTAL	0	1	1	2	4
PM	3:00 PM	0	0	0	0	0
	3:15 PM	0	0	0	0	0
	3:30 PM	0	0	0	0	0
	3:45 PM	0	0	0	0	0
	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
	TOTAL	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
2/6/19	LOCATION:	Chino	PROJECT #:	SC2081
WEDNESDAY	NORTH & SOUTH:	Flight	LOCATION #:	6
	EAST & WEST:	Kimball	CONTROL:	STOP N/S

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ▼ S ◄ W E ►

	NORTHBOUND Flight			SOUTHBOUND Flight			EASTBOUND Kimball			WESTBOUND Kimball			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 2	ER 0	WL 1	WT 1	WR 0	TOTAL
7:00 AM	0	2	2	1	0	11	26	44	2	0	124	14	226
7:15 AM	0	3	1	3	1	12	25	44	4	0	147	25	265
7:30 AM	2	3	6	2	1	27	21	46	6	0	156	27	297
7:45 AM	2	3	1	2	0	13	24	34	3	3	136	31	252
8:00 AM	0	2	3	4	6	30	38	64	5	5	137	13	307
8:15 AM	2	3	6	9	1	18	43	78	6	6	114	16	302
8:30 AM	0	3	6	6	2	17	34	37	2	1	88	20	216
8:45 AM	3	3	2	9	1	13	20	48	1	2	102	14	218
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	9	22	27	36	12	141	231	395	29	17	1,004	160	2,083
APPROACH %	16%	38%	47%	19%	6%	75%	35%	60%	4%	1%	85%	14%	
APP/DEPART	58	/	413	189	/	58	655	/	458	1,181	/	1,154	0
BEGIN PEAK HR		7:30 AM											
VOLUMES	6	11	16	17	8	88	126	222	20	14	543	87	1,158
APPROACH %	18%	33%	48%	15%	7%	78%	34%	60%	5%	2%	84%	14%	
PEAK HR FACTOR		0.750			0.706			0.724			0.880		0.943
APP/DEPART	33	/	224	113	/	42	368	/	255	644	/	637	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	2	1	3	8	2	23	21	104	7	4	34	14	223
4:15 PM	0	1	3	11	5	29	17	123	11	5	44	3	252
4:30 PM	5	1	4	19	6	31	28	148	12	1	66	5	326
4:45 PM	1	2	4	12	3	25	30	185	6	2	52	4	326
5:00 PM	0	3	4	14	6	39	34	166	9	4	52	11	342
5:15 PM	0	4	6	15	2	42	27	147	5	4	55	6	313
5:30 PM	1	3	7	13	2	25	19	166	9	2	76	8	331
5:45 PM	0	3	4	12	5	38	27	170	11	4	60	13	347
VOLUMES	9	18	35	104	31	252	203	1,209	70	26	439	64	2,460
APPROACH %	15%	29%	56%	27%	8%	65%	14%	82%	5%	5%	83%	12%	
APP/DEPART	62	/	285	387	/	127	1,482	/	1,348	529	/	700	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	1	13	21	54	15	144	107	649	34	14	243	38	1,333
APPROACH %	3%	37%	60%	25%	7%	68%	14%	82%	4%	5%	82%	13%	
PEAK HR FACTOR		0.795			0.903			0.945			0.858		0.960
APP/DEPART	35	/	158	213	/	63	790	/	724	295	/	388	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
2/6/19	LOCATION:	Chino	PROJECT #:	SC2081
WEDNESDAY	NORTH & SOUTH:	Flight	LOCATION #:	6
	EAST & WEST:	Kimball	CONTROL:	STOP N/S

CLASS 2:	NOTES:
2-AXLE WORK VEHICLES/ TRUCKS	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Flight			SOUTHBOUND Flight			EASTBOUND Kimball			WESTBOUND Kimball			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 2	ER 0	WL 1	WT 1	WR 0	TOTAL
7:00 AM	0	0	0	0	0	0	4	6	1	0	2	1	14
7:15 AM	0	0	0	0	0	1	7	3	0	0	4	0	15
7:30 AM	0	0	1	2	0	4	2	3	0	0	6	2	20
7:45 AM	0	0	0	2	1	2	1	0	0	0	7	0	13
8:00 AM	0	0	2	0	0	1	2	1	0	0	4	0	10
8:15 AM	0	0	0	0	1	1	4	9	0	0	4	1	20
8:30 AM	0	0	0	0	0	2	2	4	0	1	3	1	13
8:45 AM	0	0	0	0	0	2	1	2	0	0	3	0	8
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	3	4	2	13	23	28	1	1	33	5	113
APPROACH %	0%	0%	100%	21%	11%	68%	44%	54%	2%	3%	85%	13%	
APP/DEPART	3	/	28	19	/	4	52	/	35	39	/	46	0
BEGIN PEAK HR	7:30 AM												
VOLUMES	0	0	3	4	2	8	9	13	0	0	21	3	63
APPROACH %	0%	0%	100%	29%	14%	57%	41%	59%	0%	0%	88%	13%	
PEAK HR FACTOR	0.375			0.583			0.423			0.750			0.788
APP/DEPART	3	/	12	14	/	2	22	/	20	24	/	29	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	1	1	2	3	3	0	0	2	1	13
4:15 PM	0	0	0	0	0	1	3	4	0	0	2	1	11
4:30 PM	0	0	0	2	0	2	1	4	0	0	2	0	11
4:45 PM	0	0	0	0	0	0	3	6	1	0	3	1	14
5:00 PM	0	0	0	1	0	2	2	4	0	0	1	0	10
5:15 PM	0	0	0	1	0	0	1	4	1	1	0	1	9
5:30 PM	0	0	0	0	0	1	0	3	1	0	1	0	6
5:45 PM	0	0	0	0	0	1	4	3	0	0	2	1	11
VOLUMES	0	0	0	5	1	9	17	31	3	1	13	5	85
APPROACH %	0%	0%	0%	33%	7%	60%	33%	61%	6%	5%	68%	26%	
APP/DEPART	0	/	22	15	/	5	51	/	36	19	/	22	0
BEGIN PEAK HR	4:00 PM												
VOLUMES	0	0	0	3	1	5	10	17	1	0	9	3	49
APPROACH %	0%	0%	0%	33%	11%	56%	36%	61%	4%	0%	75%	25%	
PEAK HR FACTOR	0.000			0.563			0.700			0.750			0.875
APP/DEPART	0	/	13	9	/	2	28	/	20	12	/	14	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
2/6/19	LOCATION:	Chino	PROJECT #:	SC2081
WEDNESDAY	NORTH & SOUTH:	Flight	LOCATION #:	6
	EAST & WEST:	Kimball	CONTROL:	STOP N/S

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Flight			SOUTHBOUND Flight			EASTBOUND Kimball			WESTBOUND Kimball			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	1	2	0	1	1	0	

U-TURNS

NB	SB	EB	WB	TTL

RTOR

NRR	SRR	ERR	WRR
X	X	X	X

		NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
AM	7:00 AM	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0
	APPROACH %									
	APP/DEPART									
	BEGIN PEAK HR	7:00 AM								
	VOLUMES	0	0	0	0	0	0	0	0	0
	APPROACH %									
	PEAK HR FACTOR									
	APP/DEPART									
PM	03:00 PM	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0
	APPROACH %									
	APP/DEPART									
	BEGIN PEAK HR	4:45 PM								
	VOLUMES	0	0	0	0	0	0	0	0	0
	APPROACH %									
	PEAK HR FACTOR									
	APP/DEPART									

AM													
7:00 AM	0	0	0	0	0	0	0	1	0	0	2	0	3
7:15 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
7:30 AM	0	0	1	0	0	0	0	0	0	0	1	0	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	1	1	0	0	0	0	2
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	1	0	0	0	2	4	0	0	3	0	10
APPROACH %	0%	0%	100%	0%	0%	0%	33%	67%	0%	0%	100%	0%	
APP/DEPART	1	/	2	0	/	0	6	/	5	3	/	3	0
BEGIN PEAK HR	7:00 AM												
VOLUMES	0	0	1	0	0	0	0	3	0	0	3	0	7
APPROACH %	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR	0.250			0.000			0.375			0.375			0.583
APP/DEPART	1	/	0	0	/	0	3	/	4	3	/	3	0

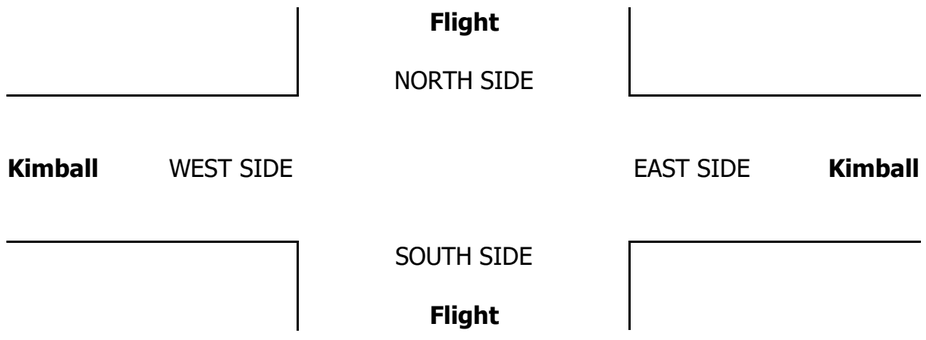
	NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0

	NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
						0	0	0	0

PM													
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	2	1	0	0	0	0	0	3
4:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	1	0	0	0	1	0	2
5:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	1	1	0	0	0	1	0	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	6	3	0	0	0	2	0	11
APPROACH %	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	100%	0%	
APP/DEPART	0	/	3	6	/	0	3	/	0	2	/	8	0
BEGIN PEAK HR	4:45 PM												
VOLUMES	0	0	0	0	0	3	2	0	0	0	2	0	7
APPROACH %	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	100%	0%	
PEAK HR FACTOR	0.000			0.375			0.500			0.500			0.583
APP/DEPART	0	/	2	3	/	0	2	/	0	2	/	5	0

	NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
03:00 PM	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0

	NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
						0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
2/6/19	LOCATION:	Chino	PROJECT #:	SC2081
WEDNESDAY	NORTH & SOUTH:	Flight	LOCATION #:	6
	EAST & WEST:	Kimball	CONTROL:	STOP N/S

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Flight			SOUTHBOUND Flight			EASTBOUND Kimball			WESTBOUND Kimball			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	1	2	0	1	1	0	

U-TURNS

NB	SB	EB	WB	TTL

RTOR

NRR	SRR	ERR	WRR
X	X	X	X

AM

7:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	1
7:15 AM	0	0	0	1	0	1	1	0	0	0	1	0	4
7:30 AM	0	0	0	0	0	0	4	0	0	0	1	0	5
7:45 AM	0	0	0	0	0	2	2	1	0	0	0	0	5
8:00 AM	0	0	0	0	0	0	1	1	0	0	1	0	3
8:15 AM	0	0	0	0	0	2	0	0	0	0	0	0	2
8:30 AM	0	0	0	0	0	1	1	2	0	0	0	0	4
8:45 AM	0	0	0	0	0	1	1	1	0	0	1	0	4
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	1	0	8	10	5	0	0	4	0	28
APPROACH %	0%	0%	0%	11%	0%	89%	67%	33%	0%	0%	100%	0%	
APP/DEPART	0	/	10	9	/	0	15	/	6	4	/	12	0
BEGIN PEAK HR	7:15 AM												
VOLUMES	0	0	0	1	0	3	8	2	0	0	3	0	17
APPROACH %	0%	0%	0%	25%	0%	75%	80%	20%	0%	0%	100%	0%	
PEAK HR FACTOR	0.000			0.500			0.625			0.750			0.850
APP/DEPART	0	/	8	4	/	0	10	/	3	3	/	6	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

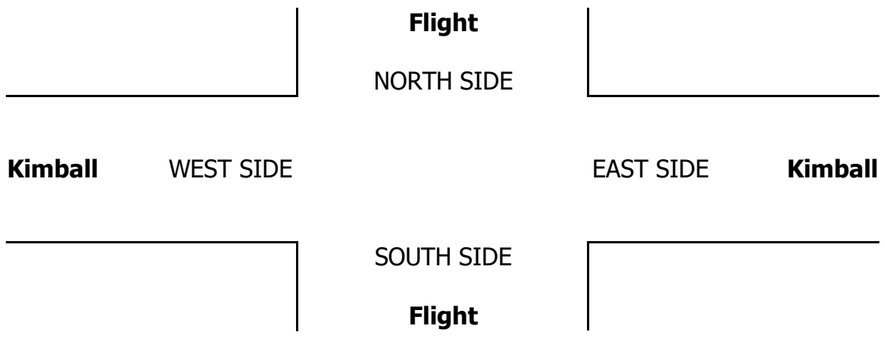
0	0	0	0

PM

03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	2	3	0	0	0	0	0	5
4:15 PM	0	0	0	0	0	2	2	0	0	0	0	0	4
4:30 PM	0	0	0	0	0	1	3	2	0	0	0	0	6
4:45 PM	0	0	0	0	0	3	0	0	0	0	1	0	4
5:00 PM	0	0	0	1	0	2	1	0	0	0	0	0	4
5:15 PM	0	0	0	0	0	3	0	0	0	0	1	0	4
5:30 PM	0	0	0	0	0	1	3	0	0	0	0	0	4
5:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
VOLUMES	0	0	0	1	0	14	13	2	0	0	2	0	32
APPROACH %	0%	0%	0%	7%	0%	93%	87%	13%	0%	0%	100%	0%	
APP/DEPART	0	/	13	15	/	0	15	/	3	2	/	16	0
BEGIN PEAK HR	4:00 PM												
VOLUMES	0	0	0	0	0	8	8	2	0	0	1	0	19
APPROACH %	0%	0%	0%	0%	0%	100%	80%	20%	0%	0%	100%	0%	
PEAK HR FACTOR	0.000			0.667			0.500			0.250			0.792
APP/DEPART	0	/	8	8	/	0	10	/	2	1	/	9	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
2/6/19	LOCATION:	Chino	PROJECT #:	SC2081
WEDNESDAY	NORTH & SOUTH:	Flight	LOCATION #:	6
	EAST & WEST:	Kimball	CONTROL:	STOP N/S

CLASS 5:	NOTES:
RV	

AM ▲ N
PM ◄ W E ►
MD S ▼
OTHER
OTHER

	NORTHBOUND Flight			SOUTHBOUND Flight			EASTBOUND Kimball			WESTBOUND Kimball			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	1	2	0	1	1	0	

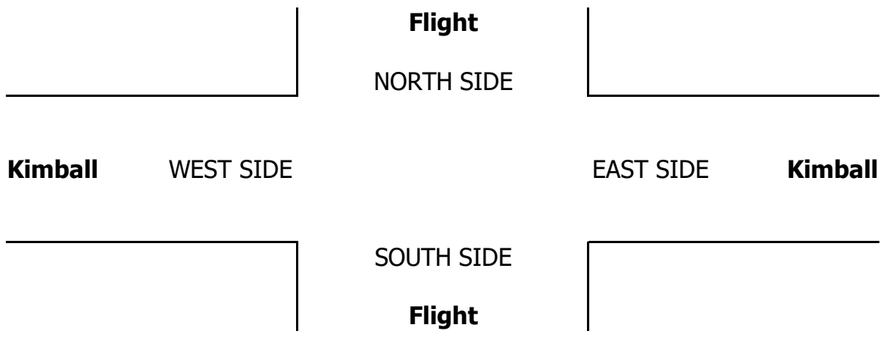
U-TURNS

NB	SB	EB	WB	TTL

RTOR

NRR	SRR	ERR	WRR
X	X	X	X

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS					RTOR			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0									
	BEGIN PEAK HR	7:00 AM																					
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0						0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
	PEAK HR FACTOR	0.000			0.000			0.000			0.000			0.000									
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0									
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0									
	BEGIN PEAK HR	3:00 PM																					
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0						0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
	PEAK HR FACTOR	0.000			0.000			0.000			0.000			0.000									
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0									



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
2/6/19	LOCATION:	Chino	PROJECT #:	SC2081
WEDNESDAY	NORTH & SOUTH:	Flight	LOCATION #:	6
	EAST & WEST:	Kimball	CONTROL:	STOP N/S

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER

N ▲ | ◄ W | E ► | S ▼

	NORTHBOUND Flight			SOUTHBOUND Flight			EASTBOUND Kimball			WESTBOUND Kimball			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 2	ER 0	WL 1	WT 1	WR 0	TOTAL
7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	2	1	0	1	0	4
7:45 AM	0	0	1	0	0	0	0	0	0	1	0	0	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	1
8:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	1	0	0	0	1	3	1	1	1	1	9
APPROACH %	0%	0%	100%	0%	0%	0%	20%	60%	20%	33%	33%	33%	
APP/DEPART	1	/	2	0	/	2	5	/	4	3	/	1	0
BEGIN PEAK HR	7:30 AM												
VOLUMES	0	0	1	0	0	0	1	2	1	1	1	1	8
APPROACH %	0%	0%	100%	0%	0%	0%	25%	50%	25%	33%	33%	33%	
PEAK HR FACTOR	0.250			0.000			0.333			0.750			0.500
APP/DEPART	1	/	2	0	/	2	4	/	3	3	/	1	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	1	0	1
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	1	/	1	0
BEGIN PEAK HR	3:15 PM												
VOLUMES	0	0	0	0	0	0	0	0	0	0	1	0	1
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	
PEAK HR FACTOR	0.000			0.000			0.000			0.250			0.250
APP/DEPART	0	/	0	0	/	0	0	/	0	1	/	1	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Jan 22, 19

LOCATION: Chino
NORTH & SOUTH: E Preserve Loop
EAST & WEST: Pine

PROJECT #: SC2056
LOCATION #: 30
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W E ►
S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND E Preserve Loop			SOUTHBOUND E Preserve Loop			EASTBOUND Pine			WESTBOUND Pine			
	LANES:	NL 2	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 1	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	12	0	12	0	0	0	0	169	2	1	311	0	507
	7:15 AM	11	0	8	0	0	0	0	173	9	2	390	0	593
	7:30 AM	15	0	10	0	0	0	0	168	5	6	422	0	626
	7:45 AM	8	0	9	0	0	0	0	174	8	3	390	0	592
	8:00 AM	17	0	6	0	0	0	0	183	4	3	322	0	535
	8:15 AM	22	0	3	0	0	0	0	224	12	4	292	0	557
	8:30 AM	7	0	3	0	0	0	0	201	8	2	277	0	498
	8:45 AM	6	0	0	0	0	0	0	154	9	10	240	0	419
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	98	0	51	0	0	0	0	1,446	57	31	2,644	0	4,327
	APPROACH %	66%	0%	34%	0%	0%	0%	0%	96%	4%	1%	99%	0%	
	APP/DEPART	149	/	0	0	/	88	1,503	/	1,497	2,675	/	2,742	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	51	0	33	0	0	0	0	698	26	14	1,524	0	2,346
	APPROACH %	61%	0%	39%	0%	0%	0%	0%	96%	4%	1%	99%	0%	
	PEAK HR FACTOR		0.840			0.000			0.968			0.898		0.937
	APP/DEPART	84	/	0	0	/	40	724	/	731	1,538	/	1,575	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	4	0	1	0	0	0	0	331	8	4	107	0	455
	4:15 PM	7	0	2	0	0	0	0	345	7	1	119	0	481
	4:30 PM	5	0	2	0	0	0	0	349	8	4	121	0	489
	4:45 PM	7	0	4	0	0	0	0	366	14	2	116	0	509
	5:00 PM	2	0	5	0	0	0	0	372	16	2	131	0	528
	5:15 PM	3	0	2	0	0	0	0	395	6	3	142	0	551
	5:30 PM	5	0	3	0	0	0	0	370	15	7	111	0	511
	5:45 PM	8	0	3	0	0	0	0	370	12	5	131	0	529
	VOLUMES	41	0	22	0	0	0	0	2,898	86	28	978	0	4,053
	APPROACH %	65%	0%	35%	0%	0%	0%	0%	97%	3%	3%	97%	0%	
	APP/DEPART	63	/	0	0	/	114	2,984	/	2,920	1,006	/	1,019	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	18	0	13	0	0	0	0	1,507	49	17	515	0	2,119
	APPROACH %	58%	0%	42%	0%	0%	0%	0%	97%	3%	3%	97%	0%	
	PEAK HR FACTOR		0.705			0.000			0.970			0.917		0.961
	APP/DEPART	31	/	0	0	/	66	1,556	/	1,520	532	/	533	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	X	0	X
9	0	0	0
5	0	2	0
7	0	0	0
4	0	1	0
4	0	0	0
2	0	2	0
3	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
34	0	6	0
20	0	3	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
2	0	1	0
0	0	1	0
2	0	0	0
4	0	0	0
1	0	0	0
2	0	0	0
2	0	0	0
14	0	2	0
9	0	0	0

E Preserve Loop

NORTH SIDE

Pine WEST SIDE EAST SIDE **Pine**

SOUTH SIDE

E Preserve Loop

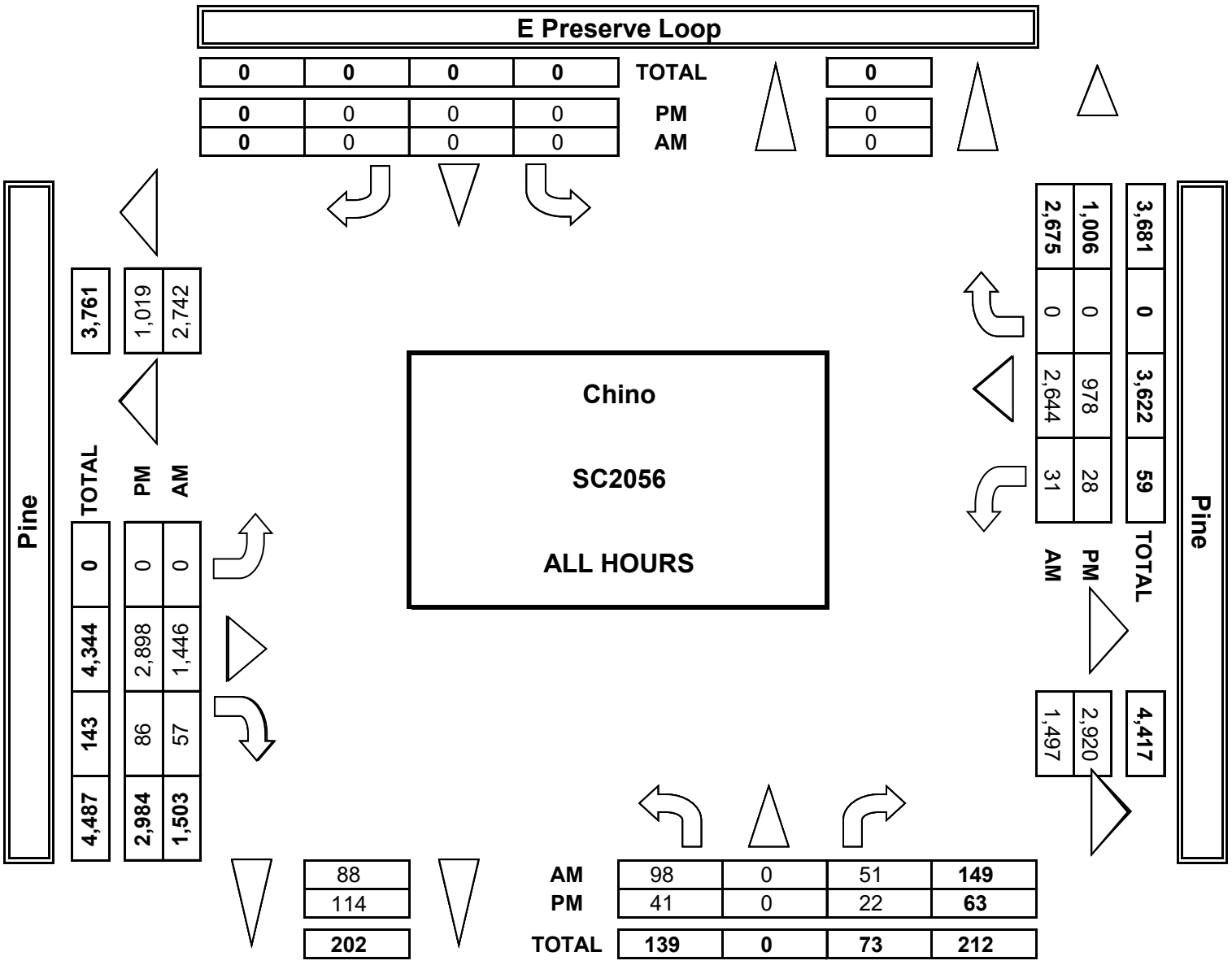
		ALL PED AND BIKE				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
	9:00 AM	0	0	0	0	0
	9:15 AM	0	0	0	0	0
	9:30 AM	0	0	0	0	0
	9:45 AM	0	0	0	0	0
	TOTAL	0	0	0	0	0
PM	3:00 PM	0	0	0	0	0
	3:15 PM	0	0	0	0	0
	3:30 PM	0	0	0	0	0
	3:45 PM	0	0	0	0	0
	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
	TOTAL	0	0	0	0	0

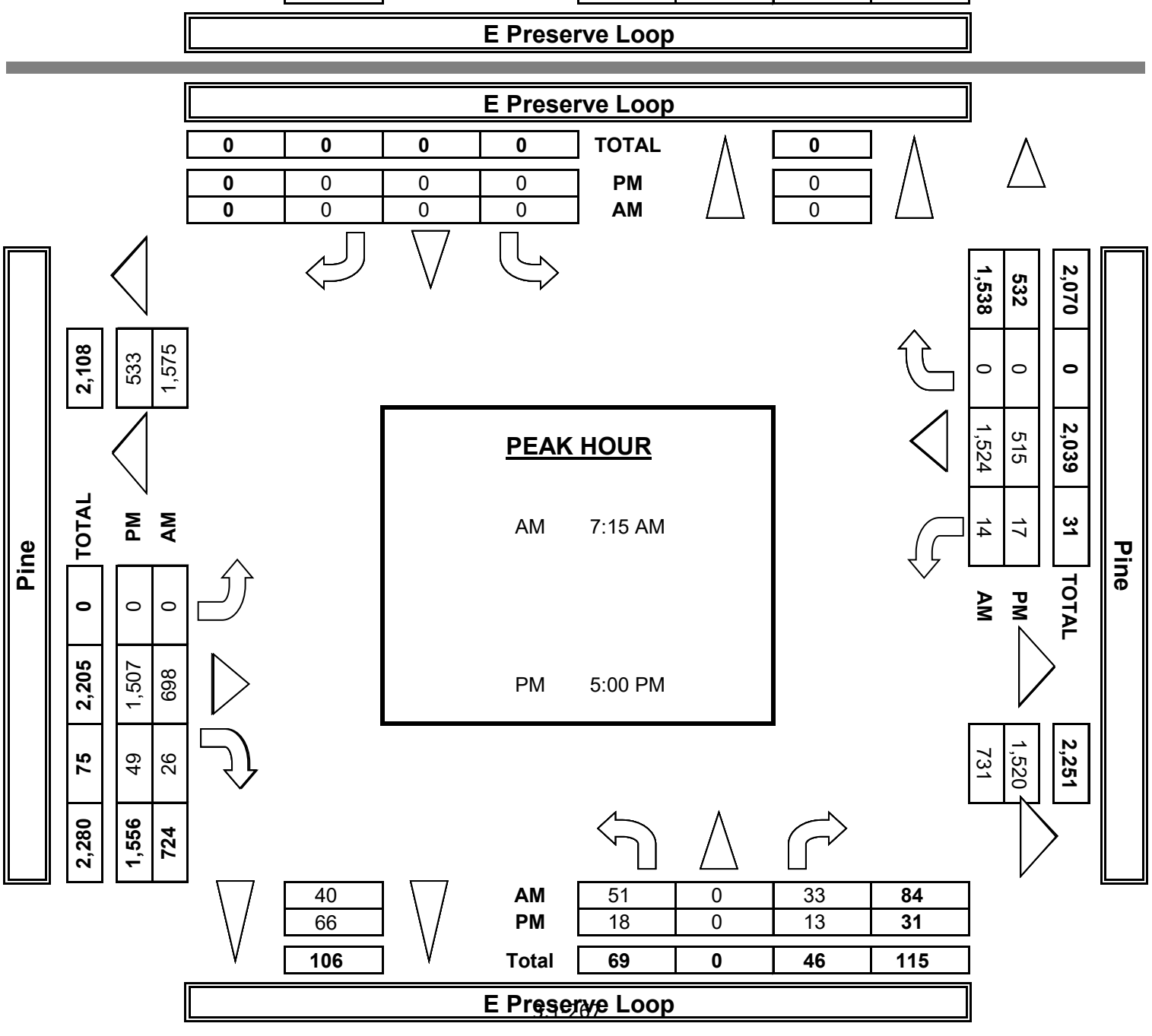
		PEDESTRIAN CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
	9:00 AM	0	0	0	0	0
	9:15 AM	0	0	0	0	0
	9:30 AM	0	0	0	0	0
	9:45 AM	0	0	0	0	0
	TOTAL	0	0	0	0	0
PM	3:00 PM	0	0	0	0	0
	3:15 PM	0	0	0	0	0
	3:30 PM	0	0	0	0	0
	3:45 PM	0	0	0	0	0
	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
	TOTAL	0	0	0	0	0

		BICYCLE CROSSINGS				
		ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
	9:00 AM	0	0	0	0	0
	9:15 AM	0	0	0	0	0
	9:30 AM	0	0	0	0	0
	9:45 AM	0	0	0	0	0
	TOTAL	0	0	0	0	0
PM	3:00 PM	0	0	0	0	0
	3:15 PM	0	0	0	0	0
	3:30 PM	0	0	0	0	0
	3:45 PM	0	0	0	0	0
	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
	TOTAL	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	E Preserve Loop	LOCATION #:	30
	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND E Preserve Loop			SOUTHBOUND E Preserve Loop			EASTBOUND Pine			WESTBOUND Pine			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	X	1	X	X	X	X	2	1	1	2	X	
7:00 AM	12	0	12	0	0	0	0	157	0	1	302	0	484
7:15 AM	10	0	7	0	0	0	0	155	8	2	375	0	557
7:30 AM	14	0	9	0	0	0	0	157	5	6	392	0	583
7:45 AM	8	0	5	0	0	0	0	160	5	2	367	0	547
8:00 AM	17	0	6	0	0	0	0	161	4	3	311	0	502
8:15 AM	22	0	3	0	0	0	0	212	11	4	281	0	533
8:30 AM	7	0	3	0	0	0	0	175	8	2	261	0	456
8:45 AM	5	0	0	0	0	0	0	144	8	7	233	0	397
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	95	0	45	0	0	0	0	1,321	49	27	2,522	0	4,059
APPROACH %	68%	0%	32%	0%	0%	0%	0%	96%	4%	1%	99%	0%	
APP/DEPART	140	/	0	0	/	76	1,370	/	1,366	2,549	/	2,617	0
BEGIN PEAK HR	7:15 AM												
VOLUMES	49	0	27	0	0	0	0	633	22	13	1,445	0	2,189
APPROACH %	64%	0%	36%	0%	0%	0%	0%	97%	3%	1%	99%	0%	
PEAK HR FACTOR	0.826			0.000			0.992			0.916			0.939
APP/DEPART	76	/	0	0	/	35	655	/	660	1,458	/	1,494	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	4	0	1	0	0	0	0	305	8	4	103	0	425
4:15 PM	7	0	2	0	0	0	0	335	7	1	113	0	465
4:30 PM	5	0	2	0	0	0	0	330	8	4	119	0	468
4:45 PM	7	0	4	0	0	0	0	351	14	2	110	0	488
5:00 PM	2	0	5	0	0	0	0	362	16	2	129	0	516
5:15 PM	3	0	2	0	0	0	0	382	6	3	137	0	533
5:30 PM	5	0	3	0	0	0	0	363	15	7	109	0	502
5:45 PM	8	0	3	0	0	0	0	362	12	5	127	0	517
VOLUMES	41	0	22	0	0	0	0	2,790	86	28	947	0	3,914
APPROACH %	65%	0%	35%	0%	0%	0%	0%	97%	3%	3%	97%	0%	
APP/DEPART	63	/	0	0	/	114	2,876	/	2,812	975	/	988	0
BEGIN PEAK HR	5:00 PM												
VOLUMES	18	0	13	0	0	0	0	1,469	49	17	502	0	2,068
APPROACH %	58%	0%	42%	0%	0%	0%	0%	97%	3%	3%	97%	0%	
PEAK HR FACTOR	0.705			0.000			0.978			0.927			0.970
APP/DEPART	31	/	0	0	/	66	1,518	/	1,482	519	/	520	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	E Preserve Loop	LOCATION #:	30
	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 2:	NOTES:
2-AXLE WORK VEHICLES/ TRUCKS	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND E Preserve Loop			SOUTHBOUND E Preserve Loop			EASTBOUND Pine			WESTBOUND Pine			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	X	1	X	X	X	X	2	1	1	2	X	
7:00 AM	0	0	0	0	0	0	0	12	2	0	8	0	22
7:15 AM	1	0	1	0	0	0	0	12	0	0	9	0	23
7:30 AM	1	0	0	0	0	0	0	8	0	0	21	0	30
7:45 AM	0	0	3	0	0	0	0	9	3	1	14	0	30
8:00 AM	0	0	0	0	0	0	0	14	0	0	11	0	25
8:15 AM	0	0	0	0	0	0	0	8	1	0	9	0	18
8:30 AM	0	0	0	0	0	0	0	15	0	0	10	0	25
8:45 AM	1	0	0	0	0	0	0	6	1	3	6	0	17
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	3	0	4	0	0	0	0	84	7	4	88	0	190
APPROACH %	43%	0%	57%	0%	0%	0%	0%	92%	8%	4%	96%	0%	
APP/DEPART	7	/	0	0	/	11	91	/	88	92	/	91	0
BEGIN PEAK HR	7:15 AM												
VOLUMES	2	0	4	0	0	0	0	43	3	1	55	0	108
APPROACH %	33%	0%	67%	0%	0%	0%	0%	93%	7%	2%	98%	0%	
PEAK HR FACTOR	0.500			0.000			0.821			0.667			0.900
APP/DEPART	6	/	0	0	/	4	46	/	47	56	/	57	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	22	0	0	3	0	25
4:15 PM	0	0	0	0	0	0	0	6	0	0	5	0	11
4:30 PM	0	0	0	0	0	0	0	13	0	0	2	0	15
4:45 PM	0	0	0	0	0	0	0	12	0	0	4	0	16
5:00 PM	0	0	0	0	0	0	0	9	0	0	2	0	11
5:15 PM	0	0	0	0	0	0	0	11	0	0	5	0	16
5:30 PM	0	0	0	0	0	0	0	6	0	0	2	0	8
5:45 PM	0	0	0	0	0	0	0	6	0	0	3	0	9
VOLUMES	0	0	0	0	0	0	0	85	0	0	26	0	111
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
APP/DEPART	0	/	0	0	/	0	85	/	85	26	/	26	0
BEGIN PEAK HR	4:00 PM												
VOLUMES	0	0	0	0	0	0	0	53	0	0	14	0	67
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR	0.000			0.000			0.602			0.700			0.670
APP/DEPART	0	/	0	0	/	0	53	/	53	14	/	14	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	E Preserve Loop	LOCATION #:	30
	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND E Preserve Loop			SOUTHBOUND E Preserve Loop			EASTBOUND Pine			WESTBOUND Pine			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	X	1	X	X	X	X	2	1	1	2	X	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	3	0	0	2	0	5
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
7:45 AM	0	0	0	0	0	0	0	3	0	0	2	0	5
8:00 AM	0	0	0	0	0	0	0	3	0	0	0	0	3
8:15 AM	0	0	0	0	0	0	0	1	0	0	2	0	3
8:30 AM	0	0	0	0	0	0	0	3	0	0	1	0	4
8:45 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	14	0	0	9	0	23
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
APP/DEPART	0	/	0	0	/	0	14	/	14	9	/	9	0
BEGIN PEAK HR		7:45 AM											
VOLUMES	0	0	0	0	0	0	0	10	0	0	5	0	15
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.000			0.833			0.625		0.750
APP/DEPART	0	/	0	0	/	0	10	/	10	5	/	5	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	4	0	0	0	0	4
4:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
VOLUMES	0	0	0	0	0	0	0	10	0	0	1	0	11
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
APP/DEPART	0	/	0	0	/	0	10	/	10	1	/	1	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	0	0	0	0	0	0	7	0	0	1	0	8
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.000			0.438			0.250		0.500
APP/DEPART	0	/	0	0	/	0	7	/	7	1	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	E Preserve Loop	LOCATION #:	30
	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND E Preserve Loop			SOUTHBOUND E Preserve Loop			EASTBOUND Pine			WESTBOUND Pine			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	X	1	X	X	X	X	2	1	1	2	X	
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
7:15 AM	0	0	0	0	0	0	0	1	1	0	3	0	5
7:30 AM	0	0	1	0	0	0	0	1	0	0	5	0	7
7:45 AM	0	0	1	0	0	0	0	1	0	0	6	0	8
8:00 AM	0	0	0	0	0	0	0	3	0	0	0	0	3
8:15 AM	0	0	0	0	0	0	0	3	0	0	0	0	3
8:30 AM	0	0	0	0	0	0	0	7	0	0	5	0	12
8:45 AM	0	0	0	0	0	0	0	3	0	0	0	0	3
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	2	0	0	0	0	19	1	0	20	0	42
APPROACH %	0%	0%	100%	0%	0%	0%	0%	95%	5%	0%	100%	0%	
APP/DEPART	2	/	0	0	/	1	20	/	21	20	/	20	0
BEGIN PEAK HR	7:45 AM												
VOLUMES	0	0	1	0	0	0	0	14	0	0	11	0	26
APPROACH %	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR	0.250			0.000			0.500			0.458			0.542
APP/DEPART	1	/	0	0	/	0	14	/	15	11	/	11	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	4	0	0	1	0	5
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:30 PM	0	0	0	0	0	0	0	4	0	0	0	0	4
4:45 PM	0	0	0	0	0	0	0	2	0	0	1	0	3
5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
VOLUMES	0	0	0	0	0	0	0	13	0	0	4	0	17
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
APP/DEPART	0	/	0	0	/	0	13	/	13	4	/	4	0
BEGIN PEAK HR	4:00 PM												
VOLUMES	0	0	0	0	0	0	0	10	0	0	3	0	13
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR	0.000			0.000			0.625			0.750			0.650
APP/DEPART	0	/	0	0	/	0	10	/	10	3	/	3	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	E Preserve Loop	LOCATION #:	30
	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND E Preserve Loop			SOUTHBOUND E Preserve Loop			EASTBOUND Pine			WESTBOUND Pine			
LANES:	NL 2	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 1	WL 1	WT 2	WR X	TOTAL

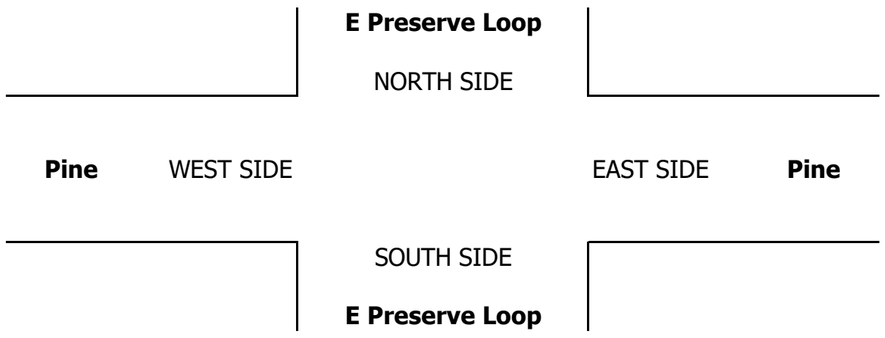
U-TURNS

NB	SB	EB	WB	TTL

RTOR

NRR	SRR	ERR	WRR
0	X	0	X

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS					RTOR			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0									
	BEGIN PEAK HR	7:00 AM																					
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0						0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
	PEAK HR FACTOR	0.000			0.000			0.000			0.000			0.000									
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0									
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0									
	BEGIN PEAK HR	3:00 PM																					
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0						0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%										
	PEAK HR FACTOR	0.000			0.000			0.000			0.000			0.000									
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0									



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	E Preserve Loop	LOCATION #:	30
	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND E Preserve Loop			SOUTHBOUND E Preserve Loop			EASTBOUND Pine			WESTBOUND Pine			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	X	1	X	X	X	X	2	1	1	2	X	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	2	0	0	1	0	3
7:30 AM	0	0	0	0	0	0	0	2	0	0	3	0	5
7:45 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
8:00 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	8	0	0	5	0	13
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
APP/DEPART	0	/	0	0	/	0	8	/	8	5	/	5	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	0	0	0	0	0	0	0	7	0	0	5	0	12
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.000			0.875			0.417		0.600
APP/DEPART	0	/	0	0	/	0	7	/	7	5	/	5	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR		3:00 PM											
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS					RTOR			
NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
					0	X	0	X
0	0	0	0	0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, Jan 24, 19

LOCATION: Chino
NORTH & SOUTH: Hellman
EAST & WEST: Kimball

PROJECT #: SC2056
LOCATION #: 32
CONTROL: SIGNAL

NOTES:
E-leg closed. Traffic lights - OFF

AM
PM
MD
OTHER
OTHER

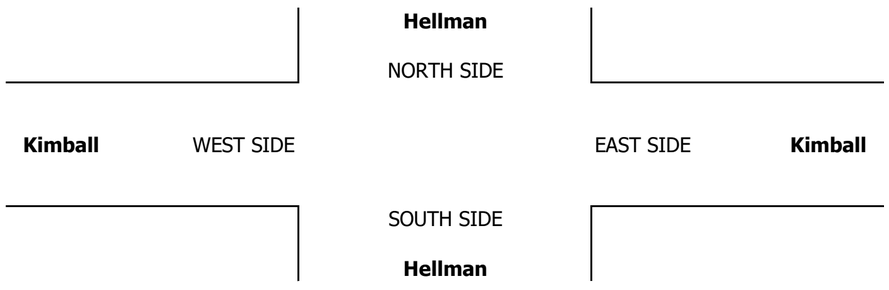
N ▲ | ◄ W | E ► | S ▼

☐ Add U-Turns to Left Turns

		NORTHBOUND Hellman			SOUTHBOUND Hellman			EASTBOUND Kimball			WESTBOUND Kimball			
	LANES:	NL 1	NT 2	NR X	SL X	ST 2	SR 0	EL 1	ET X	ER 1	WL X	WT X	WR X	TOTAL
AM	7:00 AM	207	6	0	0	1	0	4	0	57	0	0	0	275
	7:15 AM	211	4	0	0	3	3	5	0	60	0	0	0	286
	7:30 AM	192	6	0	0	2	3	2	0	59	0	0	0	264
	7:45 AM	191	11	0	0	5	1	2	0	49	0	0	0	259
	8:00 AM	175	10	0	0	6	4	7	0	66	0	0	0	268
	8:15 AM	137	10	0	0	10	1	8	0	85	0	0	0	251
	8:30 AM	117	12	0	0	5	1	7	0	55	0	0	0	197
	8:45 AM	97	7	0	0	3	2	24	0	55	0	0	0	188
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	1,327	66	0	0	35	15	59	0	486	0	0	0	1,995
	APPROACH %	95%	5%	0%	0%	69%	29%	11%	0%	88%	0%	0%	0%	
	APP/DEPART	1,394	/	126	51	/	522	550	/	0	0	/	1,347	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	801	27	0	0	11	7	13	0	225	0	0	0	1,089
	APPROACH %	97%	3%	0%	0%	61%	39%	5%	0%	93%	0%	0%	0%	
	PEAK HR FACTOR		0.963			0.750			0.920			0.000		0.949
	APP/DEPART	828	/	40	18	/	236	243	/	0	0	/	813	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	41	1	0	0	14	18	5	0	123	0	0	0	202
	4:15 PM	47	10	0	0	8	5	2	0	161	0	0	0	233
	4:30 PM	48	5	0	0	14	7	3	0	150	0	0	0	227
	4:45 PM	57	5	0	0	7	6	3	0	168	0	0	0	246
	5:00 PM	62	5	0	0	12	34	3	0	169	0	0	0	285
	5:15 PM	79	2	0	0	9	12	4	0	190	0	0	0	296
	5:30 PM	76	3	0	0	8	18	2	0	177	0	0	0	284
	5:45 PM	58	5	0	0	9	11	3	0	181	0	0	0	267
	VOLUMES	468	36	0	0	81	111	25	0	1,319	0	0	0	2,060
	APPROACH %	89%	7%	0%	0%	42%	58%	2%	0%	98%	0%	0%	0%	
	APP/DEPART	524	/	61	192	/	1,420	1,344	/	0	0	/	579	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	275	15	0	0	38	75	12	0	717	0	0	0	1,142
	APPROACH %	92%	5%	0%	0%	34%	66%	2%	0%	98%	0%	0%	0%	
	PEAK HR FACTOR		0.882			0.614			0.939			0.000		0.952
	APP/DEPART	300	/	27	113	/	765	729	/	0	0	/	350	0

U-TURNS NB	SB	EB	WB	TTL
0	0	2	0	2
0	0	1	0	1
0	0	2	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	1	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	1	5	0	7
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
3	0	0	0	3
1	0	0	0	1
2	0	0	0	2
4	0	0	0	4
0	0	0	0	0
4	0	0	0	4
2	0	0	0	2
4	0	0	0	4
20	0	0	0	20

RTOR NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



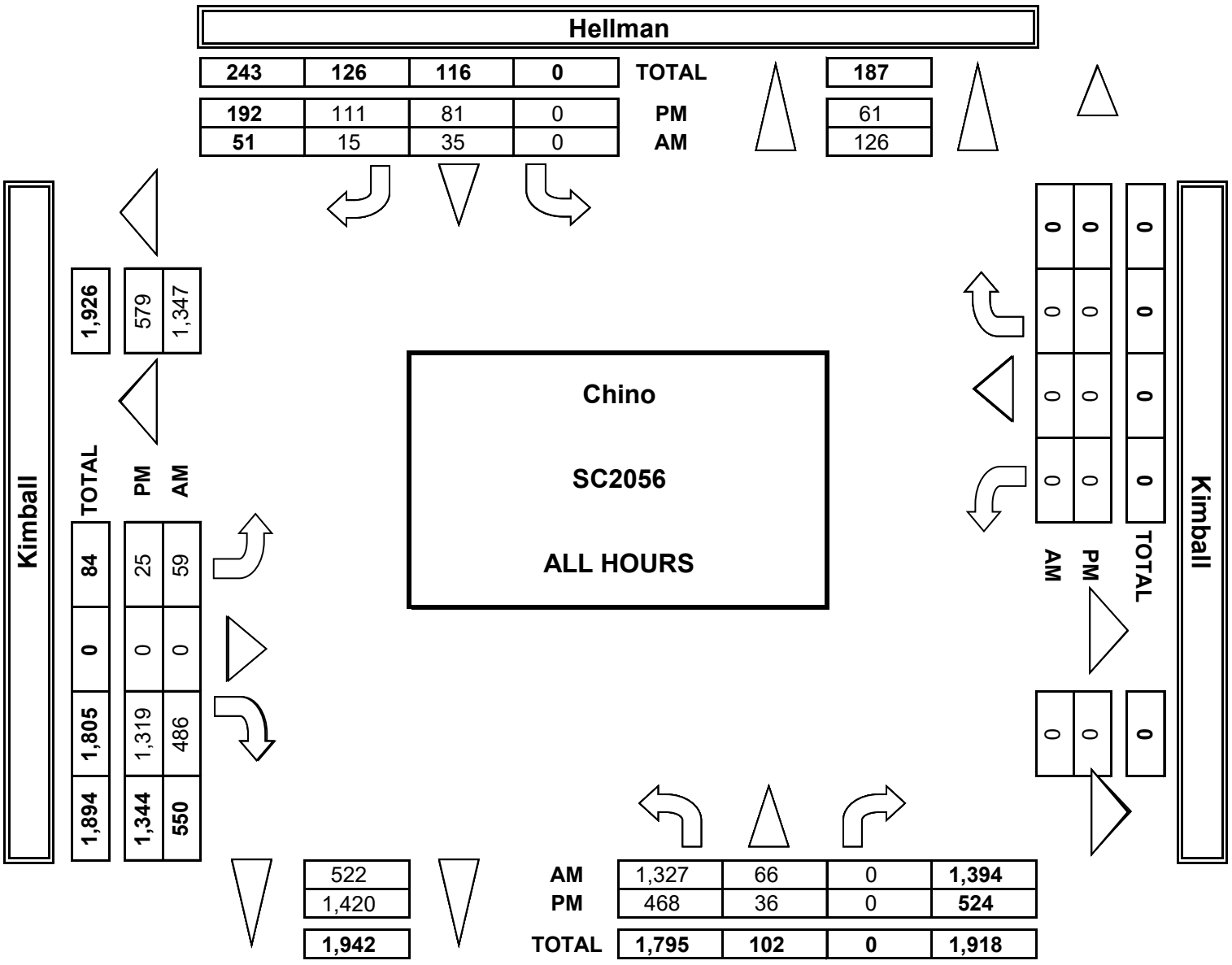
		ALL PED AND BIKE E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	1	0	1
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
	9:00 AM	0	0	0	0	0
	9:15 AM	0	0	0	0	0
	9:30 AM	0	0	0	0	0
	9:45 AM	0	0	0	0	0
	TOTAL	0	0	1	0	1
PM	3:00 PM	0	0	0	0	0
	3:15 PM	0	0	0	0	0
	3:30 PM	0	0	0	0	0
	3:45 PM	0	0	0	0	0
	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
	TOTAL	0	0	0	0	0

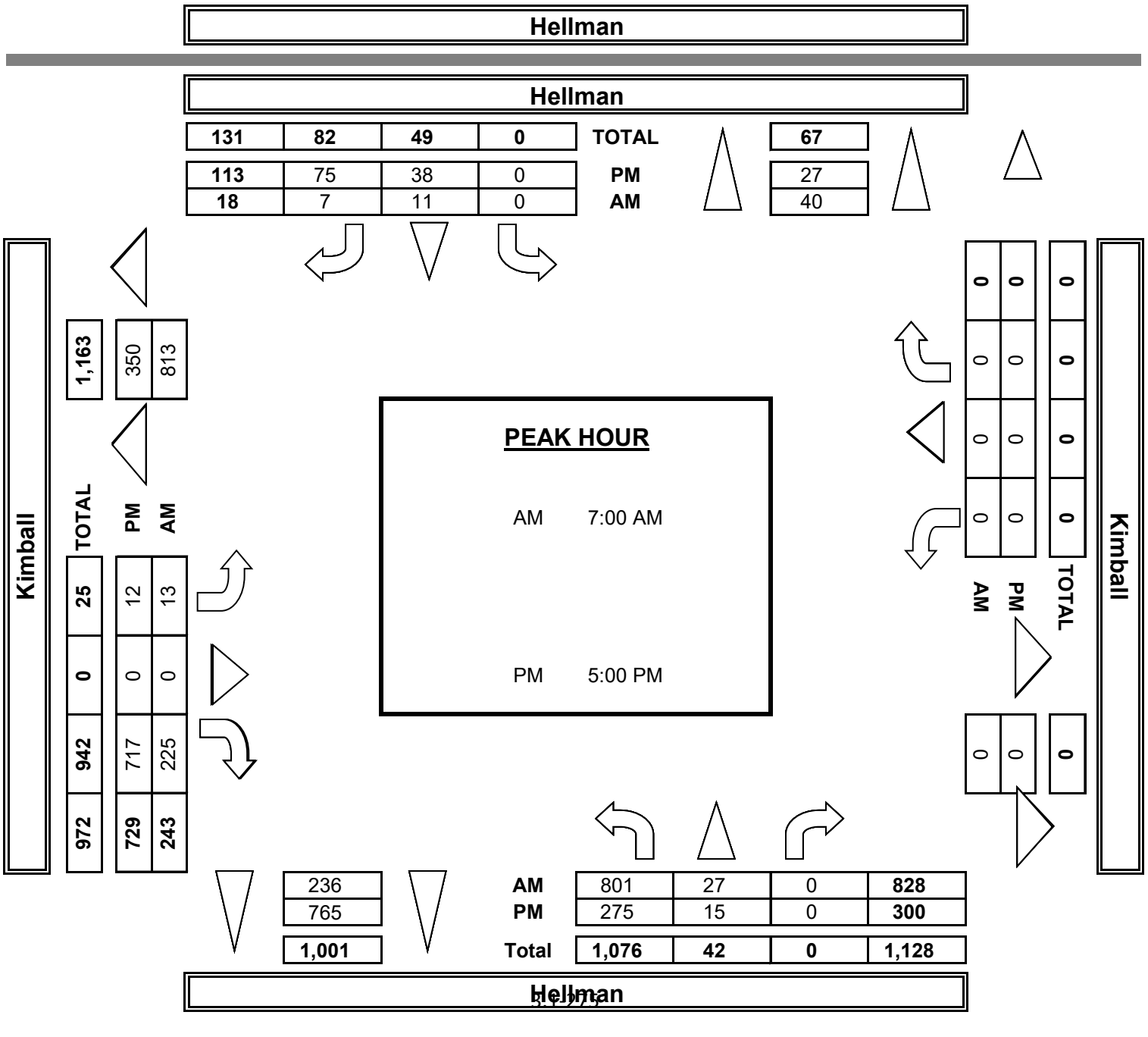
PEDESTRIAN CROSSINGS E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

BICYCLE CROSSINGS ES	WS	SS	NS	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/24/19	LOCATION:	Chino	PROJECT #:	SC2056
THURSDAY	NORTH & SOUTH:	Hellman	LOCATION #:	32
	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Hellman			SOUTHBOUND Hellman			EASTBOUND Kimball			WESTBOUND Kimball			
LANES:	NL 1	NT 2	NR X	SL X	ST 2	SR 0	EL 1	ET X	ER 1	WL X	WT X	WR X	TOTAL
7:00 AM	193	5	0	0	0	0	3	0	48	0	0	0	249
7:15 AM	201	3	0	0	1	2	4	0	46	0	0	0	257
7:30 AM	175	5	0	0	0	2	2	0	46	0	0	0	230
7:45 AM	172	7	0	0	2	0	1	0	38	0	0	0	220
8:00 AM	165	9	0	0	3	2	5	0	53	0	0	0	237
8:15 AM	128	9	0	0	6	1	7	0	69	0	0	0	220
8:30 AM	104	6	0	0	3	0	7	0	45	0	0	0	165
8:45 AM	88	6	0	0	2	1	19	0	43	0	0	0	159
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	1,226	50	0	0	17	8	48	0	388	0	0	0	1,740
APPROACH %	96%	4%	0%	0%	65%	31%	11%	0%	89%	0%	0%	0%	
APP/DEPART	1,277	/	99	26	/	406	437	/	0	0	/	1,235	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	741	20	0	0	3	4	10	0	178	0	0	0	957
APPROACH %	97%	3%	0%	0%	43%	57%	5%	0%	94%	0%	0%	0%	
PEAK HR FACTOR		0.933			0.583			0.926			0.000		0.931
APP/DEPART	761	/	30	7	/	181	189	/	0	0	/	746	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	37	0	0	0	14	12	4	0	119	0	0	0	186
4:15 PM	44	8	0	0	7	2	2	0	150	0	0	0	213
4:30 PM	42	3	0	0	11	6	1	0	148	0	0	0	211
4:45 PM	52	4	0	0	6	5	2	0	164	0	0	0	233
5:00 PM	59	5	0	0	12	31	2	0	166	0	0	0	275
5:15 PM	77	2	0	0	9	11	0	0	183	0	0	0	282
5:30 PM	71	3	0	0	8	16	0	0	173	0	0	0	271
5:45 PM	58	5	0	0	8	10	3	0	176	0	0	0	260
VOLUMES	440	30	0	0	75	93	14	0	1,279	0	0	0	1,951
APPROACH %	90%	6%	0%	0%	45%	55%	1%	0%	99%	0%	0%	0%	
APP/DEPART	490	/	44	168	/	1,374	1,293	/	0	0	/	533	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	265	15	0	0	37	68	5	0	698	0	0	0	1,098
APPROACH %	91%	5%	0%	0%	35%	65%	1%	0%	99%	0%	0%	0%	
PEAK HR FACTOR		0.873			0.610			0.960			0.000		0.960
APP/DEPART	290	/	20	105	/	745	703	/	0	0	/	333	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	1	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	1	1	0	3
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
3	0	0	0	3
1	0	0	0	1
2	0	0	0	2
4	0	0	0	4
0	0	0	0	0
4	0	0	0	4
2	0	0	0	2
4	0	0	0	4
20	0	0	0	20

RTOR

NRR	SRR	ERR	WRR
X	X	X	X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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0	0	0	0
0	0	0	0
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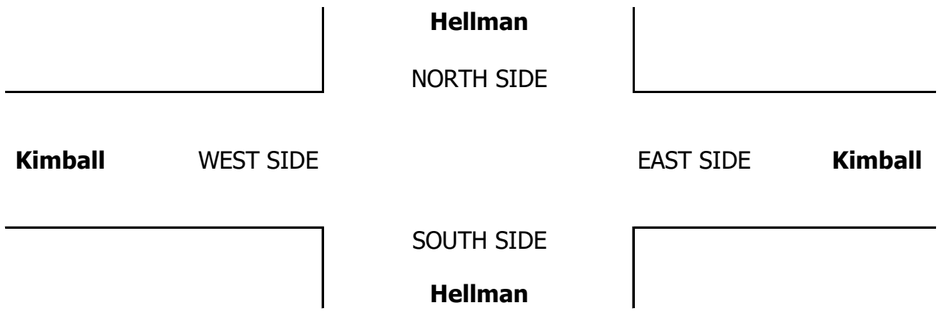
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/24/19	LOCATION:	Chino	PROJECT #:	SC2056
THURSDAY	NORTH & SOUTH:	Hellman	LOCATION #:	32
	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 2:	NOTES:
2-AXLE WORK VEHICLES/ TRUCKS	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Hellman			SOUTHBOUND Hellman			EASTBOUND Kimball			WESTBOUND Kimball			
LANES:	NL 1	NT 2	NR X	SL X	ST 2	SR 0	EL 1	ET X	ER 1	WL X	WT X	WR X	TOTAL
7:00 AM	11	0	0	0	0	0	1	0	5	0	0	0	17
7:15 AM	7	1	0	0	0	1	0	0	8	0	0	0	17
7:30 AM	10	1	0	0	0	1	0	0	5	0	0	0	17
7:45 AM	7	0	0	0	1	1	0	0	3	0	0	0	12
8:00 AM	4	0	0	0	1	1	2	0	8	0	0	0	16
8:15 AM	3	0	0	0	0	0	0	0	6	0	0	0	9
8:30 AM	5	1	0	0	1	0	0	0	4	0	0	0	11
8:45 AM	3	0	0	0	0	1	1	0	6	0	0	0	11
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	50	3	0	0	3	5	4	0	45	0	0	0	112
APPROACH %	94%	6%	0%	0%	38%	63%	8%	0%	88%	0%	0%	0%	
APP/DEPART	53	/	7	8	/	48	51	/	0	0	/	57	0
BEGIN PEAK HR	7:00 AM												
VOLUMES	35	2	0	0	1	3	1	0	21	0	0	0	65
APPROACH %	95%	5%	0%	0%	25%	75%	4%	0%	88%	0%	0%	0%	
PEAK HR FACTOR		0.841			0.500			0.667			0.000		0.903
APP/DEPART	37	/	3	4	/	22	24	/	0	0	/	40	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	4	1	0	0	0	1	0	0	3	0	0	0	9
4:15 PM	1	1	0	0	0	0	0	0	8	0	0	0	10
4:30 PM	4	2	0	0	1	1	2	0	2	0	0	0	12
4:45 PM	3	1	0	0	1	1	1	0	4	0	0	0	11
5:00 PM	1	0	0	0	0	2	0	0	3	0	0	0	6
5:15 PM	2	0	0	0	0	1	1	0	6	0	0	0	10
5:30 PM	5	0	0	0	0	0	0	0	4	0	0	0	9
5:45 PM	0	0	0	0	1	0	0	0	5	0	0	0	6
VOLUMES	20	5	0	0	3	6	4	0	35	0	0	0	73
APPROACH %	80%	20%	0%	0%	33%	67%	10%	0%	90%	0%	0%	0%	
APP/DEPART	25	/	9	9	/	38	39	/	0	0	/	26	0
BEGIN PEAK HR	4:00 PM												
VOLUMES	12	5	0	0	2	3	3	0	17	0	0	0	42
APPROACH %	71%	29%	0%	0%	40%	60%	15%	0%	85%	0%	0%	0%	
PEAK HR FACTOR		0.708			0.625			0.625			0.000		0.875
APP/DEPART	17	/	8	5	/	19	20	/	0	0	/	15	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	1	0	1
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	2	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
X	X	X	X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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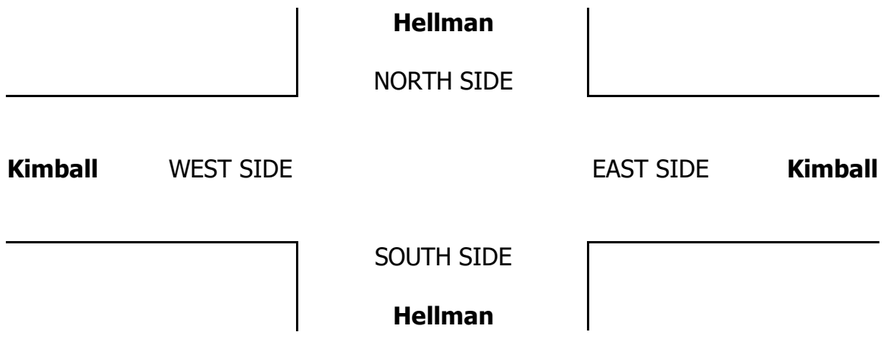
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/24/19	LOCATION:	Chino	PROJECT #:	SC2056
THURSDAY	NORTH & SOUTH:	Hellman	LOCATION #:	32
	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Hellman			SOUTHBOUND Hellman			EASTBOUND Kimball			WESTBOUND Kimball			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	X	X	2	0	1	X	1	X	X	X	
7:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	2
7:15 AM	2	0	0	0	0	0	0	0	0	0	0	0	2
7:30 AM	2	0	0	0	0	0	0	0	0	0	0	0	2
7:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	1	0	0	0	1	0	0	0	2
8:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	1
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	5	2	0	0	3	0	0	0	2	0	0	0	13
APPROACH %	71%	29%	0%	0%	100%	0%	0%	0%	67%	0%	0%	0%	
APP/DEPART	7	/	2	3	/	5	3	/	0	0	/	6	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	5	1	0	0	2	0	0	0	0	0	0	0	9
APPROACH %	83%	17%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.750			0.500			0.250			0.000		0.750
APP/DEPART	6	/	1	2	/	2	1	/	0	0	/	6	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	1	1	0	0	0	0	0	2
4:15 PM	0	1	0	0	0	1	0	0	1	0	0	0	3
4:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	2	0	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	2	0	0	0	0	1	0	0	0	0	0	0	3
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	1	1	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	5	1	0	0	0	4	2	0	1	0	0	0	13
APPROACH %	83%	17%	0%	0%	0%	100%	67%	0%	33%	0%	0%	0%	
APP/DEPART	6	/	3	4	/	1	3	/	0	0	/	9	0
BEGIN PEAK HR		4:15 PM											
VOLUMES	5	1	0	0	0	2	0	0	1	0	0	0	9
APPROACH %	83%	17%	0%	0%	0%	100%	0%	0%	100%	0%	0%	0%	
PEAK HR FACTOR		0.750			0.500			0.250			0.000		0.750
APP/DEPART	6	/	1	2	/	1	1	/	0	0	/	7	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
X	X	X	X
0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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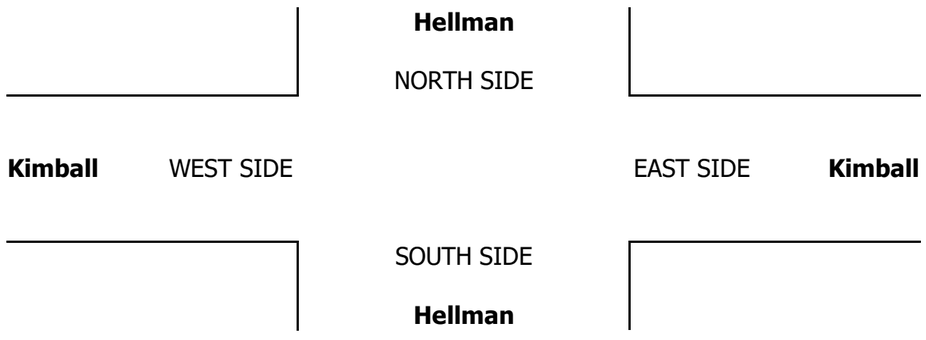
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/24/19	LOCATION:	Chino	PROJECT #:	SC2056
THURSDAY	NORTH & SOUTH:	Hellman	LOCATION #:	32
	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Hellman			SOUTHBOUND Hellman			EASTBOUND Kimball			WESTBOUND Kimball			
LANES:	NL 1	NT 2	NR X	SL X	ST 2	SR 0	EL 1	ET X	ER 1	WL X	WT X	WR X	TOTAL
7:00 AM	2	1	0	0	0	0	0	0	4	0	0	0	7
7:15 AM	1	0	0	0	2	0	1	0	6	0	0	0	10
7:30 AM	5	0	0	0	2	0	0	0	8	0	0	0	15
7:45 AM	10	3	0	0	1	0	1	0	7	0	0	0	22
8:00 AM	4	1	0	0	2	1	0	0	5	0	0	0	13
8:15 AM	6	1	0	0	3	0	1	0	9	0	0	0	20
8:30 AM	8	5	0	0	1	1	0	0	5	0	0	0	20
8:45 AM	6	0	0	0	1	0	4	0	6	0	0	0	17
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	42	11	0	0	12	2	7	0	50	0	0	0	125
APPROACH %	79%	21%	0%	0%	86%	14%	12%	0%	86%	0%	0%	0%	
APP/DEPART	53	/	18	14	/	62	58	/	0	0	/	45	0
BEGIN PEAK HR	7:45 AM												
VOLUMES	28	10	0	0	7	2	2	0	26	0	0	0	75
APPROACH %	74%	26%	0%	0%	78%	22%	7%	0%	93%	0%	0%	0%	
PEAK HR FACTOR	0.731			0.750			0.700			0.000			0.852
APP/DEPART	38	/	12	9	/	33	28	/	0	0	/	30	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	4	0	0	1	0	0	0	5
4:15 PM	0	0	0	0	1	2	0	0	2	0	0	0	5
4:30 PM	1	0	0	0	2	0	0	0	0	0	0	0	3
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	3	0	1	0	0	0	4
5:30 PM	0	0	0	0	0	1	1	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
VOLUMES	1	0	0	0	3	8	5	0	4	0	0	0	21
APPROACH %	100%	0%	0%	0%	27%	73%	56%	0%	44%	0%	0%	0%	
APP/DEPART	1	/	5	11	/	7	9	/	0	0	/	9	0
BEGIN PEAK HR	3:45 PM												
VOLUMES	1	0	0	0	3	6	0	0	3	0	0	0	13
APPROACH %	100%	0%	0%	0%	33%	67%	0%	0%	100%	0%	0%	0%	
PEAK HR FACTOR	0.250			0.563			0.375			0.000			0.650
APP/DEPART	1	/	0	9	/	6	3	/	0	0	/	7	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/24/19	LOCATION:	Chino	PROJECT #:	SC2056
THURSDAY	NORTH & SOUTH:	Hellman	LOCATION #:	32
	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Hellman			SOUTHBOUND Hellman			EASTBOUND Kimball			WESTBOUND Kimball			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	LANES:	1	2	X	X	2	0	1	X	1	X	X	X	
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	1	0	0	0	0	0	0	0	0	0	0	0	1
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	1	/	0	0	/	0	0	/	0	0	/	1	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	1	0	0	0	0	0	0	0	0	0	0	0	1
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.250			0.000			0.000			0.000		0.250
	APP/DEPART	1	/	0	0	/	0	0	/	0	0	/	1	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		3:00 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/24/19	LOCATION:	Chino	PROJECT #:	SC2056
THURSDAY	NORTH & SOUTH:	Hellman	LOCATION #:	32
	EAST & WEST:	Kimball	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Hellman			SOUTHBOUND Hellman			EASTBOUND Kimball			WESTBOUND Kimball			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	LANES:	1	2	X	X	2	0	1	X	1	X	X	X	
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	2	0	0	0	0	0	0	0	1	0	0	0	3
	8:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	3	0	0	0	0	0	0	0	1	0	0	0	4
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	
	APP/DEPART	3	/	0	0	/	1	1	/	0	0	/	3	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	3	0	0	0	0	0	0	0	1	0	0	0	4
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	
	PEAK HR FACTOR		0.375			0.000			0.250			0.000		0.333
	APP/DEPART	3	/	0	0	/	1	1	/	0	0	/	3	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	2	0	0	0	0	0	0	0	0	0	0	0	2
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	2	0	0	0	0	0	0	0	0	0	0	0	2
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	2	/	0	0	/	0	0	/	0	0	/	2	0
	BEGIN PEAK HR		3:30 PM											
	VOLUMES	2	0	0	0	0	0	0	0	0	0	0	0	2
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.250			0.000			0.000			0.000		0.250
	APP/DEPART	2	/	0	0	/	0	0	/	0	0	/	2	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Jan 22, 19

LOCATION: Chino
NORTH & SOUTH: Hellman
EAST & WEST: Pine

PROJECT #: SC2056
LOCATION #: 33
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

N
W
E
S

☑ Add U-Turns to Left Turns

		NORTHBOUND Hellman			SOUTHBOUND Hellman			EASTBOUND Pine			WESTBOUND Pine			
	LANES:	NL 2	NT 2	NR 1	SL 2	ST 2	SR 1	EL 2	ET 3	ER 1	WL 2	WT 3	WR 1	TOTAL
AM	7:00 AM	106	111	30	24	25	4	7	116	86	17	210	54	790
	7:15 AM	134	112	27	19	30	2	7	91	84	19	236	70	831
	7:30 AM	135	88	12	14	45	4	7	90	115	17	246	69	842
	7:45 AM	124	109	12	21	33	2	6	86	114	14	236	81	838
	8:00 AM	100	97	10	28	36	5	9	80	95	12	176	85	733
	8:15 AM	92	77	11	31	37	6	3	110	114	4	187	45	717
	8:30 AM	77	64	8	26	36	2	5	87	118	14	187	52	676
	8:45 AM	68	49	8	17	37	5	1	96	67	12	163	42	565
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	836	707	118	180	279	30	45	756	793	109	1,641	498	5,992
	APPROACH %	50%	43%	7%	37%	57%	6%	3%	47%	50%	5%	73%	22%	
	APP/DEPART	1,661	/	1,248	489	/	1,180	1,594	/	1,056	2,248	/	2,508	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	499	420	81	78	133	12	27	383	399	67	928	274	3,301
	APPROACH %	50%	42%	8%	35%	60%	5%	3%	47%	49%	5%	73%	22%	
	PEAK HR FACTOR		0.916			0.885			0.954			0.956		0.980
	APP/DEPART	1,000	/	719	223	/	599	809	/	543	1,269	/	1,440	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	39	26	11	78	67	5	2	238	86	7	82	52	693
	4:15 PM	33	34	9	72	63	3	3	249	98	12	103	24	703
	4:30 PM	23	33	16	93	79	5	3	264	100	6	104	28	754
	4:45 PM	28	37	11	84	71	10	5	250	101	9	100	26	732
	5:00 PM	37	27	9	91	62	6	7	273	97	10	94	28	741
	5:15 PM	38	18	15	107	76	7	6	281	100	11	101	42	802
	5:30 PM	37	40	9	82	63	2	2	242	117	13	98	39	744
	5:45 PM	24	21	5	86	77	3	5	247	100	8	115	37	728
	VOLUMES	259	236	85	693	558	41	33	2,044	799	76	797	276	5,897
	APPROACH %	45%	41%	15%	54%	43%	3%	1%	71%	28%	7%	69%	24%	
	APP/DEPART	580	/	545	1,292	/	1,432	2,876	/	2,823	1,149	/	1,097	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	126	115	51	375	288	28	21	1,068	398	36	399	124	3,029
	APPROACH %	43%	39%	17%	54%	42%	4%	1%	72%	27%	6%	71%	22%	
	PEAK HR FACTOR		0.961			0.909			0.961			0.907		0.944
	APP/DEPART	292	/	260	691	/	722	1,487	/	1,494	559	/	553	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	2	0	2
0	0	0	0	0
1	0	0	1	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	2	2	5
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
19	1	24	18
12	1	27	33
6	1	40	34
5	0	44	26
3	3	28	29
5	3	57	28
3	1	41	14
4	3	29	22
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
57	13	290	204
42	3	135	111
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
4	3	39	18
6	2	31	12
9	4	41	14
4	5	30	13
3	4	48	14
9	5	59	16
3	1	49	23
4	1	29	12
42	25	326	122
25	18	178	57

Hellman

NORTH SIDE

Pine WEST SIDE EAST SIDE **Pine**

SOUTH SIDE

Hellman

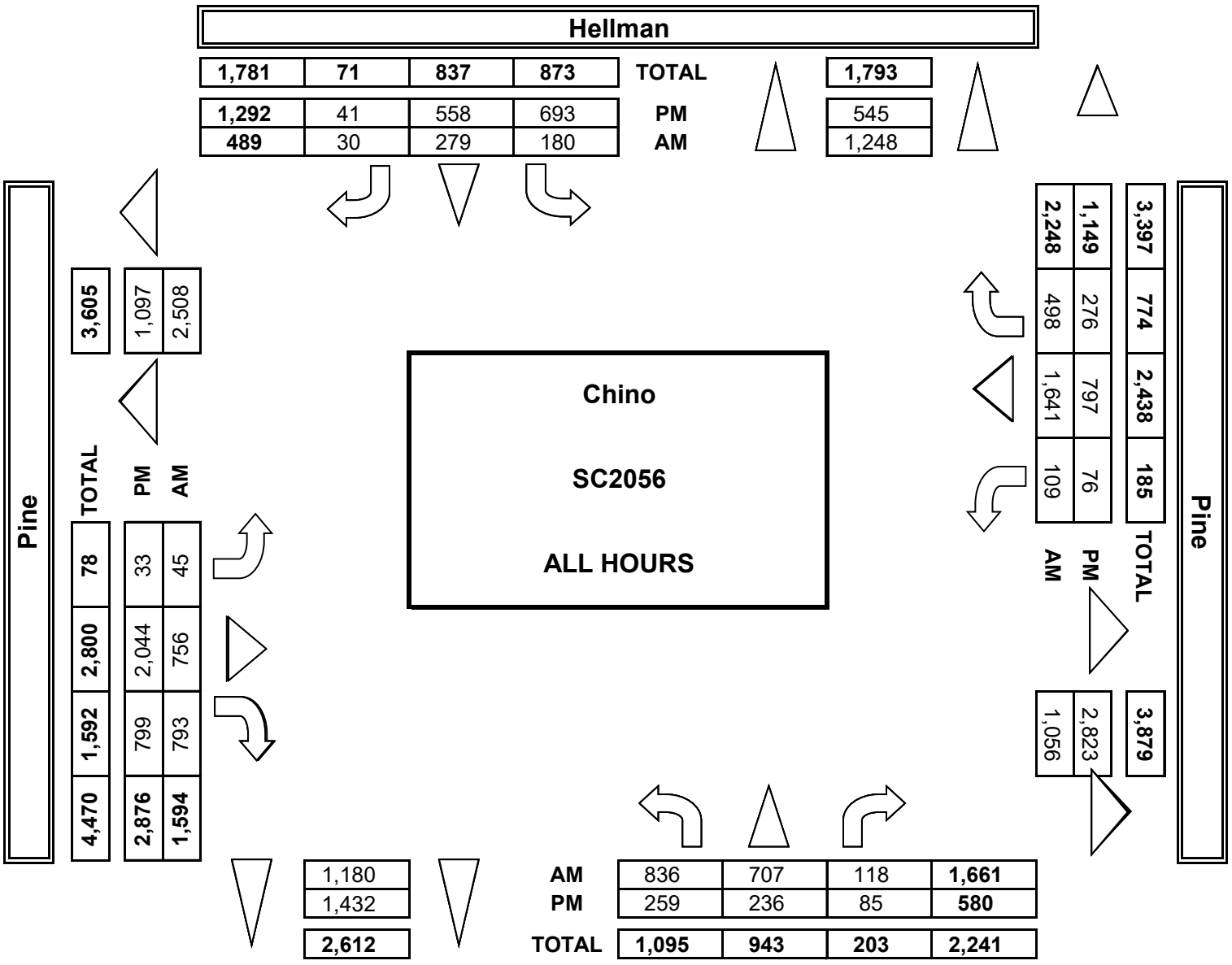
		ALL PED AND BIKE				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
	9:00 AM	0	0	0	0	0
	9:15 AM	0	0	0	0	0
	9:30 AM	0	0	0	0	0
	9:45 AM	0	0	0	0	0
	TOTAL	0	0	0	0	0
PM	3:00 PM	0	0	0	0	0
	3:15 PM	0	0	0	0	0
	3:30 PM	0	0	0	0	0
	3:45 PM	0	0	0	0	0
	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
	TOTAL	0	0	0	0	0

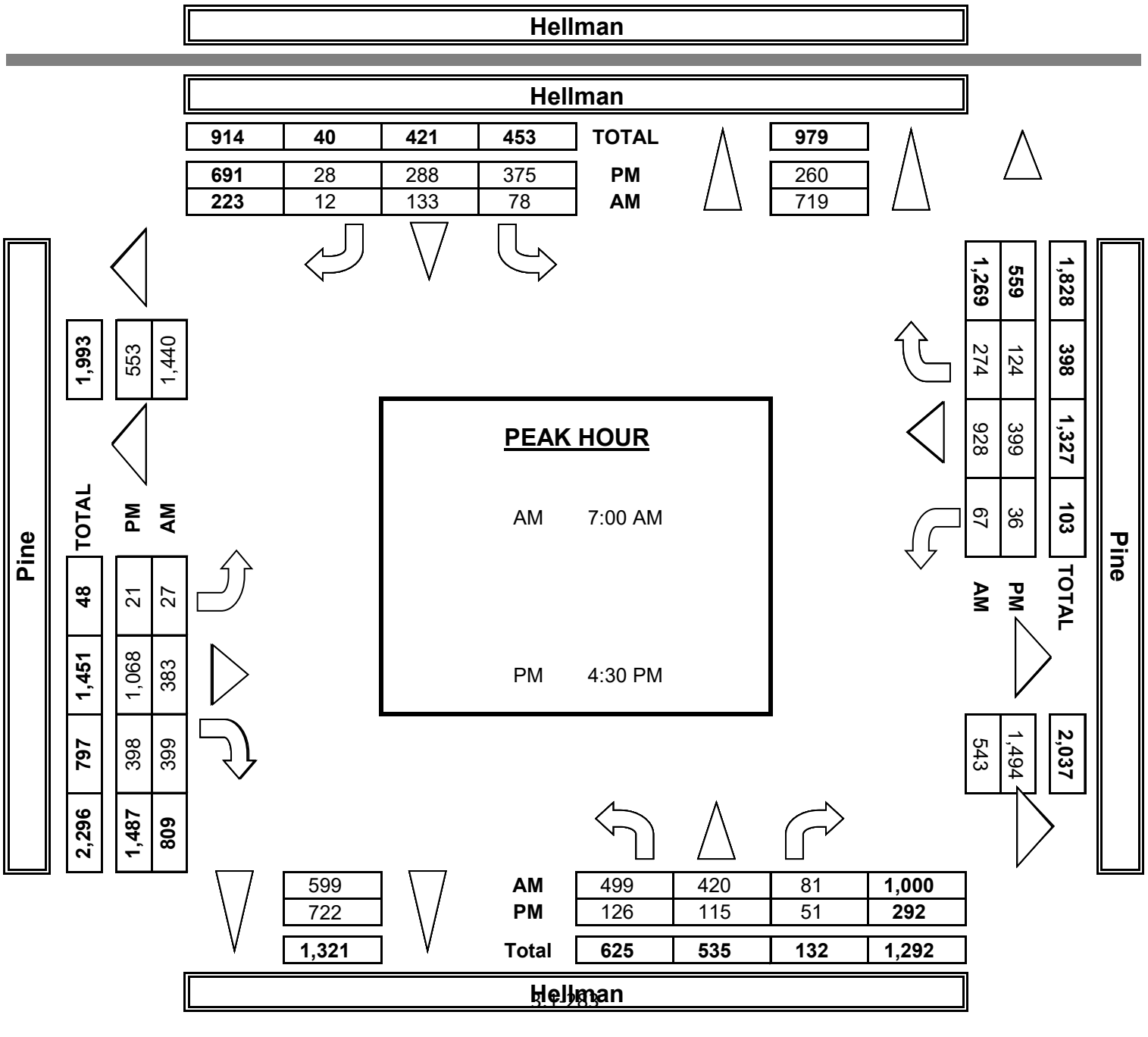
		PEDESTRIAN CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
	9:00 AM	0	0	0	0	0
	9:15 AM	0	0	0	0	0
	9:30 AM	0	0	0	0	0
	9:45 AM	0	0	0	0	0
	TOTAL	0	0	0	0	0
PM	3:00 PM	0	0	0	0	0
	3:15 PM	0	0	0	0	0
	3:30 PM	0	0	0	0	0
	3:45 PM	0	0	0	0	0
	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
	TOTAL	0	0	0	0	0

		BICYCLE CROSSINGS				
		ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
	9:00 AM	0	0	0	0	0
	9:15 AM	0	0	0	0	0
	9:30 AM	0	0	0	0	0
	9:45 AM	0	0	0	0	0
	TOTAL	0	0	0	0	0
PM	3:00 PM	0	0	0	0	0
	3:15 PM	0	0	0	0	0
	3:30 PM	0	0	0	0	0
	3:45 PM	0	0	0	0	0
	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
	TOTAL	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Hellman	LOCATION #:	33
	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER

N ▲ ◄ W E ► S ▼

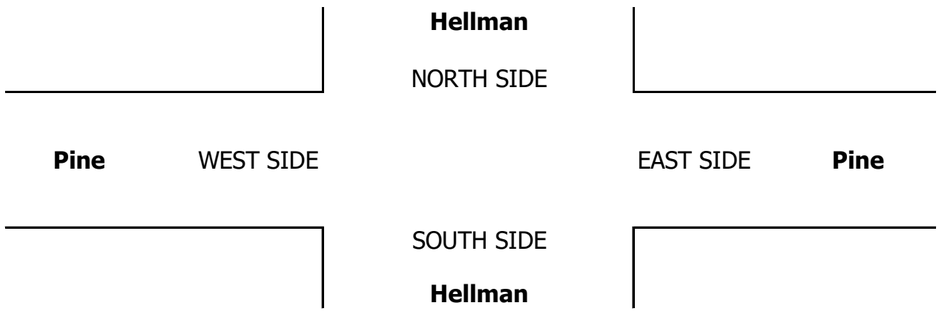
	NORTHBOUND Hellman			SOUTHBOUND Hellman			EASTBOUND Pine			WESTBOUND Pine			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	2	1	2	2	1	2	3	1	2	3	1	
7:00 AM	102	105	27	22	24	3	6	108	81	12	207	54	751
7:15 AM	129	109	23	15	27	2	6	85	77	15	226	68	782
7:30 AM	125	79	8	11	42	2	5	82	107	14	227	67	769
7:45 AM	115	104	12	17	31	2	5	74	105	10	227	76	778
8:00 AM	93	88	9	25	33	4	9	68	86	10	170	83	678
8:15 AM	84	72	9	27	31	5	3	107	102	2	182	39	663
8:30 AM	71	63	5	23	33	2	5	78	107	10	183	47	627
8:45 AM	60	46	6	16	34	4	0	95	59	7	158	41	526
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	779	666	99	156	255	24	39	697	724	80	1,580	475	5,574
APPROACH %	50%	43%	6%	36%	59%	6%	3%	48%	50%	4%	74%	22%	
APP/DEPART	1,544	/	1,179	435	/	1,059	1,460	/	953	2,135	/	2,383	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	470	397	70	65	124	9	21	349	370	50	887	265	3,080
APPROACH %	50%	42%	7%	33%	63%	5%	3%	47%	50%	4%	74%	22%	
PEAK HR FACTOR		0.898			0.900			0.950			0.961		0.985
APP/DEPART	938	/	683	198	/	545	741	/	485	1,203	/	1,367	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	37	22	9	77	60	4	2	223	75	6	80	43	638
4:15 PM	32	28	7	69	57	3	3	238	94	12	98	23	664
4:30 PM	22	33	15	90	73	4	3	255	91	6	101	27	720
4:45 PM	27	35	10	82	69	9	5	238	97	9	98	25	704
5:00 PM	35	23	9	90	61	6	6	266	91	10	94	27	718
5:15 PM	36	18	15	105	73	7	6	271	95	10	99	40	775
5:30 PM	37	40	9	80	62	2	2	238	112	12	97	37	728
5:45 PM	23	21	5	85	76	3	5	241	97	8	113	36	713
VOLUMES	249	220	79	678	531	38	32	1,970	752	73	780	258	5,660
APPROACH %	45%	40%	14%	54%	43%	3%	1%	72%	27%	7%	70%	23%	
APP/DEPART	548	/	510	1,247	/	1,356	2,754	/	2,727	1,111	/	1,067	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	131	102	38	360	272	18	19	1,016	395	40	403	140	2,934
APPROACH %	48%	38%	14%	55%	42%	3%	1%	71%	28%	7%	69%	24%	
PEAK HR FACTOR		0.788			0.878			0.961			0.928		0.946
APP/DEPART	271	/	261	650	/	707	1,430	/	1,414	583	/	552	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
1	0	0	1	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	1	1	3
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
17	1	24	18
11	1	25	31
4	0	37	32
5	0	37	24
3	2	27	28
4	2	53	24
2	1	39	13
4	3	26	22
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
50	10	268	192
37	2	123	105
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
3	2	33	17
4	2	30	11
8	3	39	13
4	4	29	13
3	4	44	13
9	5	55	16
3	1	46	22
4	1	29	12
38	22	305	117
19	11	174	63



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Hellman	LOCATION #:	33
	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Hellman			SOUTHBOUND Hellman			EASTBOUND Pine			WESTBOUND Pine			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	2	1	2	2	1	2	3	1	2	3	1	

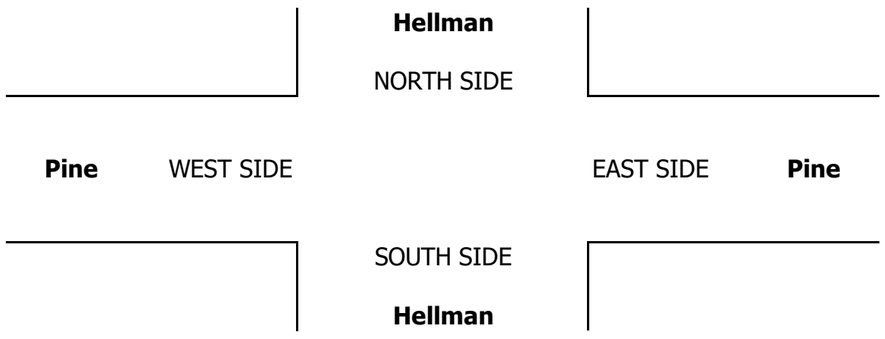
U-TURNS

NB	SB	EB	WB	TTL

RTOR

NRR	SRR	ERR	WRR
0	0	0	0

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS					RTOR			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
AM	7:00 AM	4	5	2	2	1	1	1	8	4	3	2	0	33	0	0	0	0	0	2	0	0	0
	7:15 AM	4	2	3	4	3	0	0	3	5	4	6	2	36	0	0	0	0	0	0	0	2	2
	7:30 AM	4	8	4	3	3	1	1	6	5	1	14	2	52	0	0	0	0	0	2	1	1	2
	7:45 AM	7	5	0	2	2	0	1	7	8	3	8	4	47	0	0	0	0	0	0	0	6	2
	8:00 AM	7	5	0	2	3	1	0	9	5	2	6	2	42	0	0	0	0	0	0	1	1	1
	8:15 AM	5	3	2	2	4	1	0	1	10	0	4	5	37	0	0	0	0	0	1	1	4	4
	8:30 AM	4	0	3	3	2	0	0	5	5	2	2	4	30	0	0	0	0	0	1	0	1	1
	8:45 AM	7	3	2	1	3	1	1	1	5	3	2	1	30	0	0	0	1	1	0	0	2	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	42	31	16	19	21	5	4	40	47	18	44	20	307	0	0	0	1	1	6	3	17	12
	APPROACH %	47%	35%	18%	42%	47%	11%	4%	44%	52%	22%	54%	24%										
	APP/DEPART	89	/	55	45	/	85	91	/	76	82	/	91	0									
	BEGIN PEAK HR		7:30 AM																				
	VOLUMES	23	21	6	9	12	3	2	23	28	6	32	13	178						3	3	12	9
	APPROACH %	46%	42%	12%	38%	50%	13%	4%	43%	53%	12%	63%	25%										
	PEAK HR FACTOR		0.781			0.857			0.828			0.750		0.856									
	APP/DEPART	50	/	36	24	/	46	53	/	38	51	/	58	0									
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	2	4	2	1	7	1	0	12	9	1	1	8	48	0	0	0	1	1	1	1	5	1
	4:15 PM	1	4	1	3	6	0	0	10	2	0	4	1	32	0	0	0	0	0	1	0	0	1
	4:30 PM	1	0	1	3	5	0	0	6	6	0	3	0	25	0	0	0	0	0	1	0	2	0
	4:45 PM	1	2	1	2	2	1	0	11	3	0	1	1	25	0	0	0	0	0	0	1	1	0
	5:00 PM	2	2	0	0	1	0	1	6	5	0	0	1	18	0	0	0	0	0	0	0	3	1
	5:15 PM	2	0	0	2	3	0	0	8	5	0	2	2	24	0	0	0	0	0	0	0	4	0
	5:30 PM	0	0	0	2	1	0	0	3	5	0	1	2	14	0	0	0	0	0	0	0	3	1
	5:45 PM	0	0	0	1	1	0	0	5	1	0	2	0	10	0	0	0	0	0	0	0	0	0
	VOLUMES	9	12	5	14	26	2	1	61	36	1	14	15	196	0	0	0	1	1	3	2	18	4
	APPROACH %	35%	46%	19%	33%	62%	5%	1%	62%	37%	3%	47%	50%										
	APP/DEPART	26	/	28	42	/	62	98	/	81	30	/	25	0									
	BEGIN PEAK HR		4:00 PM																				
	VOLUMES	5	10	5	9	20	2	0	39	20	0	9	10	130						3	2	8	2
	APPROACH %	25%	50%	25%	29%	65%	6%	0%	66%	34%	0%	45%	50%										
	PEAK HR FACTOR		0.625			0.861			0.702			0.500		0.677									
	APP/DEPART	20	/	20	31	/	40	59	/	54	20	/	16	0									



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Hellman	LOCATION #:	33
	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Hellman			SOUTHBOUND Hellman			EASTBOUND Pine			WESTBOUND Pine			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	2	1	2	2	1	2	3	1	2	3	1	
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	1	0	0	0	0	0	0	2	0	1	0	4
7:30 AM	2	0	0	0	0	0	0	0	0	2	0	0	4
7:45 AM	0	0	0	1	0	0	0	3	1	1	0	0	6
8:00 AM	0	2	1	1	0	0	0	1	1	0	0	0	6
8:15 AM	3	0	0	0	0	0	0	1	1	1	0	0	6
8:30 AM	0	0	0	0	0	0	0	1	2	1	0	0	4
8:45 AM	1	0	0	0	0	0	0	0	1	2	2	0	6
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	6	4	1	2	0	0	0	6	8	7	3	0	37
APPROACH %	55%	36%	9%	100%	0%	0%	0%	43%	57%	70%	30%	0%	
APP/DEPART	11	/	4	2	/	15	14	/	9	10	/	9	0
BEGIN PEAK HR		7:30 AM											
VOLUMES	4	2	1	1	0	0	0	3	5	4	2	0	22
APPROACH %	57%	29%	14%	100%	0%	0%	0%	38%	63%	67%	33%	0%	
PEAK HR FACTOR		0.583			0.250			0.500			0.375		0.917
APP/DEPART	7	/	2	1	/	9	8	/	5	6	/	6	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
4:15 PM	0	1	0	0	0	0	0	1	2	0	0	0	4
4:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	1	0	1	0	2
5:00 PM	0	2	0	0	0	0	0	1	0	0	0	0	3
5:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
5:45 PM	0	0	0	0	0	0	0	1	1	0	0	0	2
VOLUMES	0	3	0	0	0	0	0	7	4	1	1	0	16
APPROACH %	0%	100%	0%	0%	0%	0%	0%	64%	36%	50%	50%	0%	
APP/DEPART	3	/	3	0	/	5	11	/	7	2	/	1	0
BEGIN PEAK HR		4:15 PM											
VOLUMES	0	3	0	0	0	0	0	3	3	0	1	0	10
APPROACH %	0%	100%	0%	0%	0%	0%	0%	50%	50%	0%	100%	0%	
PEAK HR FACTOR		0.375			0.000			0.500			0.250		0.625
APP/DEPART	3	/	3	0	/	3	6	/	3	1	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Hellman	LOCATION #:	33
	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

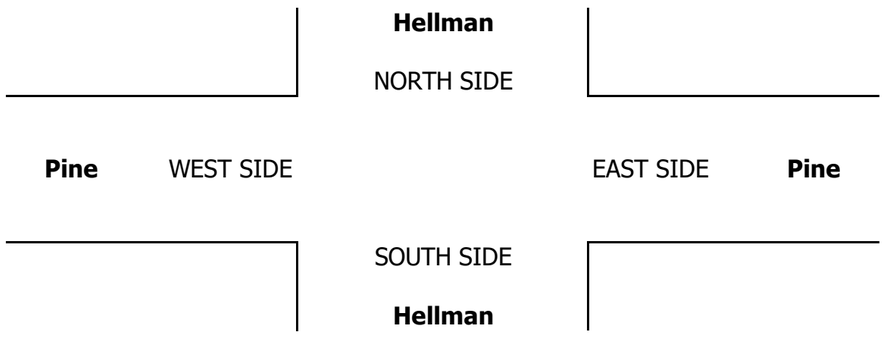
	NORTHBOUND Hellman			SOUTHBOUND Hellman			EASTBOUND Pine			WESTBOUND Pine			
LANES:	NL 2	NT 2	NR 1	SL 2	ST 2	SR 1	EL 2	ET 3	ER 1	WL 2	WT 3	WR 1	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	1	1	1	0	3
7:15 AM	1	0	1	0	0	0	1	1	0	0	2	0	6
7:30 AM	2	1	0	0	0	1	0	1	2	0	3	0	10
7:45 AM	2	0	0	1	0	0	0	1	0	0	1	1	6
8:00 AM	0	1	0	0	0	0	0	2	2	0	0	0	5
8:15 AM	0	2	0	2	2	0	0	1	1	1	1	1	11
8:30 AM	2	1	0	0	1	0	0	3	3	1	2	1	14
8:45 AM	0	0	0	0	0	0	0	0	2	0	1	0	3
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	7	5	1	3	3	1	1	9	11	3	11	3	58
APPROACH %	54%	38%	8%	43%	43%	14%	5%	43%	52%	18%	65%	18%	
APP/DEPART	13	/	8	7	/	17	21	/	13	17	/	20	0
BEGIN PEAK HR	7:45 AM												
VOLUMES	4	4	0	3	3	0	0	7	6	2	4	3	36
APPROACH %	50%	50%	0%	50%	50%	0%	0%	54%	46%	22%	44%	33%	
PEAK HR FACTOR		0.667			0.375			0.542			0.563		0.643
APP/DEPART	8	/	7	6	/	11	13	/	10	9	/	8	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	2	2	0	1	0	5
4:15 PM	0	1	1	0	0	0	0	0	0	0	1	0	3
4:30 PM	0	0	0	0	1	1	0	2	3	0	0	1	8
4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:00 PM	0	0	0	1	0	0	0	0	1	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:45 PM	1	0	0	0	0	0	0	0	1	0	0	1	3
VOLUMES	1	1	1	1	1	1	0	6	7	1	2	2	24
APPROACH %	33%	33%	33%	33%	33%	33%	0%	46%	54%	20%	40%	40%	
APP/DEPART	3	/	3	3	/	9	13	/	8	5	/	4	0
BEGIN PEAK HR	4:00 PM												
VOLUMES	0	1	1	0	1	1	0	5	5	0	2	1	17
APPROACH %	0%	50%	50%	0%	50%	50%	0%	50%	50%	0%	67%	33%	
PEAK HR FACTOR		0.250			0.250			0.500			0.750		0.531
APP/DEPART	2	/	2	2	/	6	10	/	6	3	/	3	0

U-TURNS

	NB	SB	EB	WB	TTL
	0	0	0	0	0
	0	0	1	0	1
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	1	0	1
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	3	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	1	0
1	0	0	0
0	1	0	1
0	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	0	0
1	1	2	1
1	1	1	1



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Hellman	LOCATION #:	33
	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Hellman			SOUTHBOUND Hellman			EASTBOUND Pine			WESTBOUND Pine			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	2	1	2	2	1	2	3	1	2	3	1	
AM													
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR	7:00 AM												
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR	0.000			0.000			0.000			0.000			0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM													
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR	3:00 PM												
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR	0.000			0.000			0.000			0.000			0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Hellman	LOCATION #:	33
	EAST & WEST:	Pine	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Hellman			SOUTHBOUND Hellman			EASTBOUND Pine			WESTBOUND Pine			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:		2	2	1	2	2	1	2	3	1	2	3	1	
AM	7:00 AM	0	0	1	0	0	0	0	0	0	1	0	0	2
	7:15 AM	0	0	0	0	0	0	0	2	0	0	1	0	3
	7:30 AM	2	0	0	0	0	0	1	1	1	0	2	0	7
	7:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	8:00 AM	0	1	0	0	0	0	0	0	1	0	0	0	2
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	1
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	2	1	1	0	0	0	1	4	3	1	3	0	16
	APPROACH %	50%	25%	25%	0%	0%	0%	13%	50%	38%	25%	75%	0%	
	APP/DEPART	4	/	2	0	/	4	8	/	5	4	/	5	0
	BEGIN PEAK HR	7:00 AM												
	VOLUMES	2	1	0	0	0	0	1	4	2	0	3	0	13
	APPROACH %	67%	33%	0%	0%	0%	0%	14%	57%	29%	0%	100%	0%	
	PEAK HR FACTOR	0.375			0.000			0.583			0.375			0.464
	APP/DEPART	3	/	2	0	/	2	7	/	4	3	/	5	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	1	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	
	APP/DEPART	0	/	1	0	/	0	0	/	0	1	/	0	0
	BEGIN PEAK HR	3:15 PM												
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	1	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	
	PEAK HR FACTOR	0.000			0.000			0.000			0.250			0.250
	APP/DEPART	0	/	1	0	/	0	0	/	0	1	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Jan 22, 19

LOCATION: Chino
NORTH & SOUTH: Archibald
EAST & WEST: Limonite

PROJECT #: SC2056
LOCATION #: 37
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

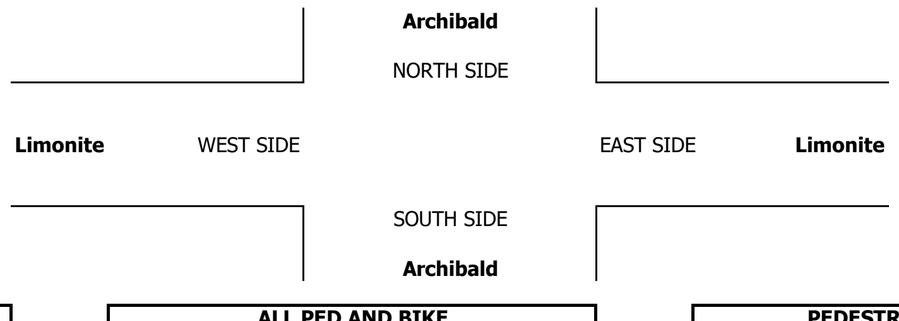
N
W
E
S

☑ Add U-Turns to Left Turns

		NORTHBOUND Archibald			SOUTHBOUND Archibald			EASTBOUND Limonite			WESTBOUND Limonite			
	LANES:	NL X	NT 1	NR 1	SL 1	ST 1	SR X	EL X	ET X	ER X	WL 1	WT X	WR 1	TOTAL
AM	7:00 AM	0	197	51	35	115	0	0	0	0	56	0	156	610
	7:15 AM	0	216	69	35	107	0	0	0	0	66	0	168	661
	7:30 AM	0	181	67	38	106	0	0	0	0	50	0	198	640
	7:45 AM	0	173	68	47	92	0	0	0	0	65	0	179	624
	8:00 AM	0	169	56	43	118	0	0	0	0	54	0	160	600
	8:15 AM	0	197	64	49	105	0	0	0	0	32	0	141	588
	8:30 AM	0	163	55	54	99	0	0	0	0	57	0	152	580
	8:45 AM	0	142	34	40	93	0	0	0	0	56	0	92	457
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	1,438	464	341	835	0	0	0	0	436	0	1,246	4,760
	APPROACH %	0%	76%	24%	29%	71%	0%	0%	0%	0%	26%	0%	74%	
	APP/DEPART	1,902	/	2,684	1,176	/	1,271	0	/	805	1,682	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	767	255	155	420	0	0	0	0	237	0	701	2,535
	APPROACH %	0%	75%	25%	27%	73%	0%	0%	0%	0%	25%	0%	75%	
	PEAK HR FACTOR		0.896			0.958			0.000			0.946		0.959
	APP/DEPART	1,022	/	1,468	575	/	657	0	/	410	938	/	0	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	110	48	81	158	0	0	0	0	62	0	63	522
	4:15 PM	0	118	58	90	172	0	0	0	0	58	0	54	550
	4:30 PM	0	95	60	104	162	0	0	0	0	79	0	68	568
	4:45 PM	0	109	79	149	197	0	0	0	0	78	0	53	665
	5:00 PM	0	118	69	115	210	0	0	0	0	63	0	61	636
	5:15 PM	0	114	88	121	200	0	0	0	0	73	0	55	651
	5:30 PM	0	147	76	123	196	0	0	0	0	70	0	51	663
	5:45 PM	0	88	64	123	176	0	0	0	0	73	0	62	586
	VOLUMES	0	899	542	906	1,471	0	0	0	0	556	0	467	4,841
	APPROACH %	0%	62%	38%	38%	62%	0%	0%	0%	0%	54%	0%	46%	
	APP/DEPART	1,441	/	1,366	2,377	/	2,026	0	/	1,449	1,023	/	0	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	0	488	312	508	803	0	0	0	0	284	0	220	2,615
	APPROACH %	0%	61%	39%	39%	61%	0%	0%	0%	0%	56%	0%	44%	
	PEAK HR FACTOR		0.897			0.947			0.000			0.962		0.983
	APP/DEPART	800	/	708	1,311	/	1,086	0	/	821	504	/	0	0

U-TURNS					
	NB	SB	EB	WB	TTL
	0	0	0	0	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
9:00 AM	0	0	0	0	0
9:15 AM	0	0	0	0	0
9:30 AM	0	0	0	0	0
9:45 AM	0	0	0	0	0
	0	0	0	0	0
03:00 PM	0	0	0	0	0
3:15 PM	0	0	0	0	0
3:30 PM	0	0	0	0	0
3:45 PM	0	0	0	0	0
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	1	1
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
	0	0	0	1	1

RTOR			
NRR 0	SRR X	ERR X	WRR 0
8	0	0	13
10	0	0	13
19	0	0	15
8	0	0	13
8	0	0	14
15	0	0	19
7	0	0	8
6	0	0	14
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
81	0	0	109
45	0	0	54
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
6	0	0	20
8	0	0	17
10	0	0	17
6	0	0	11
5	0	0	19
5	0	0	15
5	0	0	4
7	0	0	14
52	0	0	117
21	0	0	49

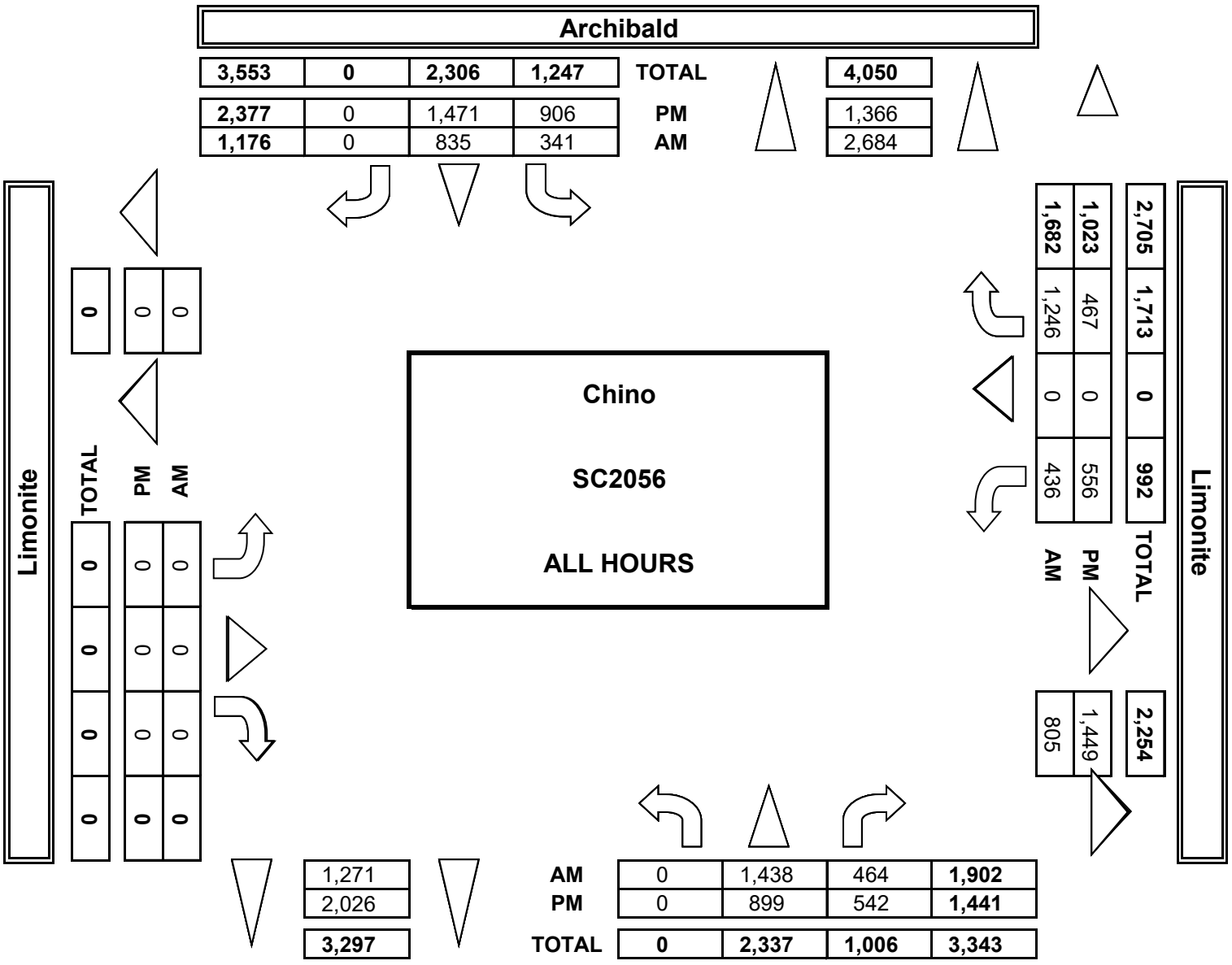


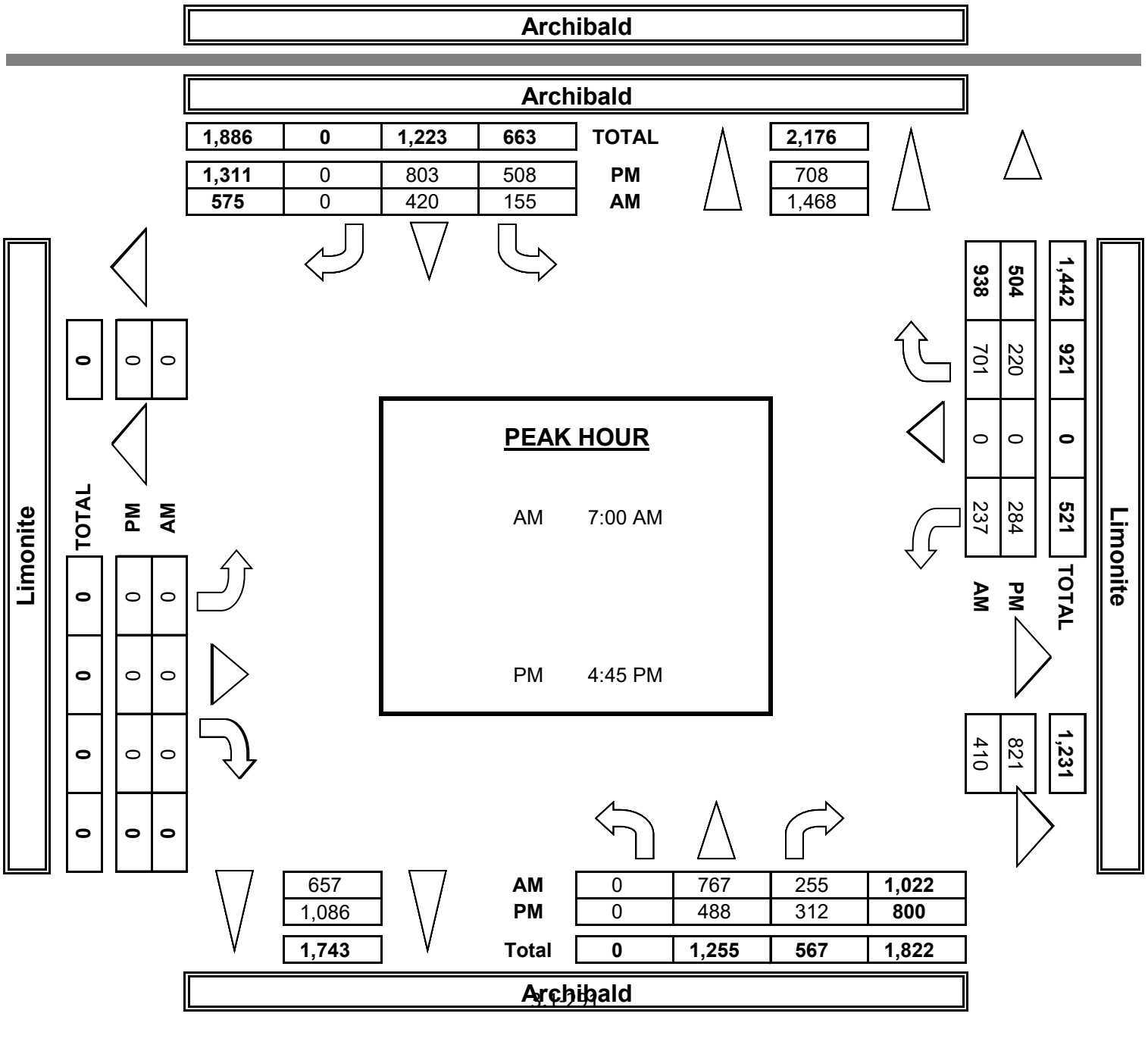
		ALL PED AND BIKE				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	1	1
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	1	0	0	0	1
	8:45 AM	0	0	0	0	0
	9:00 AM	0	0	0	0	0
	9:15 AM	0	0	0	0	0
	9:30 AM	0	0	0	0	0
	9:45 AM	0	0	0	0	0
	TOTAL	1	0	0	1	2
PM	3:00 PM	0	0	0	0	0
	3:15 PM	0	0	0	0	0
	3:30 PM	0	0	0	0	0
	3:45 PM	0	0	0	0	0
	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	1	0	0	0	1
	5:45 PM	0	0	0	0	0
	TOTAL	1	0	0	0	1

PEDESTRIAN CROSSINGS				
E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Archibald	LOCATION #:	37
	EAST & WEST:	Limonite	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER

N ▲ S ▼ W ◄ E ►

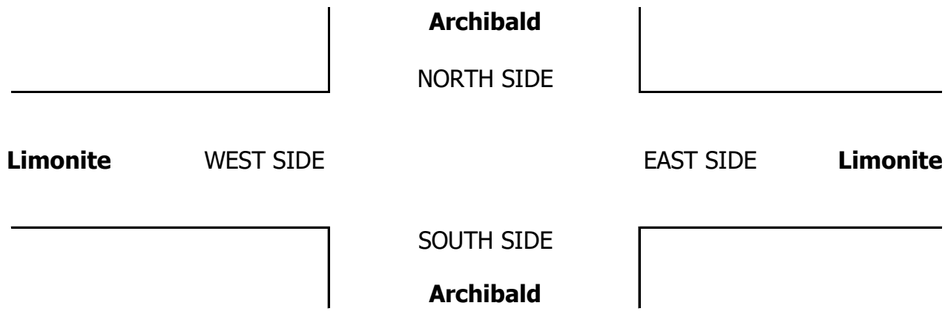
	NORTHBOUND Archibald			SOUTHBOUND Archibald			EASTBOUND Limonite			WESTBOUND Limonite			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	X	1	1	1	1	X	X	X	X	1	X	1	
7:00 AM	0	187	50	32	106	0	0	0	0	50	0	143	568
7:15 AM	0	209	69	30	96	0	0	0	0	58	0	160	622
7:30 AM	0	175	64	30	90	0	0	0	0	48	0	191	598
7:45 AM	0	161	65	37	82	0	0	0	0	54	0	168	567
8:00 AM	0	161	49	40	105	0	0	0	0	48	0	152	555
8:15 AM	0	186	59	40	91	0	0	0	0	26	0	129	531
8:30 AM	0	150	50	46	79	0	0	0	0	46	0	147	518
8:45 AM	0	131	32	35	78	0	0	0	0	46	0	82	404
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	1,360	438	290	727	0	0	0	0	376	0	1,172	4,363
APPROACH %	0%	76%	24%	29%	71%	0%	0%	0%	0%	24%	0%	76%	
APP/DEPART	1,798	/	2,532	1,017	/	1,103	0	/	728	1,548	/	0	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	0	732	248	129	374	0	0	0	0	210	0	662	2,355
APPROACH %	0%	75%	25%	26%	74%	0%	0%	0%	0%	24%	0%	76%	
PEAK HR FACTOR		0.881			0.911			0.000			0.912		0.947
APP/DEPART	980	/	1,394	503	/	584	0	/	377	872	/	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	92	45	79	148	0	0	0	0	60	0	57	481
4:15 PM	0	111	57	84	159	0	0	0	0	57	0	49	517
4:30 PM	0	86	53	100	149	0	0	0	0	71	0	65	524
4:45 PM	0	101	73	141	186	0	0	0	0	76	0	49	626
5:00 PM	0	114	66	112	203	0	0	0	0	62	0	58	615
5:15 PM	0	100	86	121	197	0	0	0	0	72	0	53	629
5:30 PM	0	140	74	123	190	0	0	0	0	66	0	49	642
5:45 PM	0	85	63	120	170	0	0	0	0	71	0	60	569
VOLUMES	0	829	517	880	1,402	0	0	0	0	535	0	440	4,603
APPROACH %	0%	62%	38%	39%	61%	0%	0%	0%	0%	55%	0%	45%	
APP/DEPART	1,346	/	1,269	2,282	/	1,936	0	/	1,398	975	/	0	0
BEGIN PEAK HR		4:45 PM											
VOLUMES	0	455	299	497	776	0	0	0	0	275	0	209	2,512
APPROACH %	0%	60%	40%	39%	61%	0%	0%	0%	0%	57%	0%	43%	
PEAK HR FACTOR		0.881			0.973			0.000			0.970		0.978
APP/DEPART	754	/	664	1,273	/	1,051	0	/	797	485	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
0	X	X	0
8	0	0	11
10	0	0	12
17	0	0	15
8	0	0	13
7	0	0	14
13	0	0	18
5	0	0	8
6	0	0	14
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
74	0	0	105
43	0	0	51
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
5	0	0	19
8	0	0	16
9	0	0	16
5	0	0	10
5	0	0	17
5	0	0	15
5	0	0	4
7	0	0	13
49	0	0	110
20	0	0	46



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Archibald	LOCATION #:	37
	EAST & WEST:	Limonite	CONTROL:	SIGNAL

CLASS 2:	NOTES:
2-AXLE WORK VEHICLES/ TRUCKS	

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

	NORTHBOUND Archibald			SOUTHBOUND Archibald			EASTBOUND Limonite			WESTBOUND Limonite			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	X	1	1	1	1	X	X	X	X	1	X	1	
7:00 AM	0	9	1	3	5	0	0	0	0	3	0	11	32
7:15 AM	0	7	0	3	9	0	0	0	0	7	0	7	33
7:30 AM	0	5	1	5	11	0	0	0	0	1	0	6	29
7:45 AM	0	8	2	9	7	0	0	0	0	11	0	4	41
8:00 AM	0	5	2	3	11	0	0	0	0	4	0	3	28
8:15 AM	0	6	4	8	5	0	0	0	0	3	0	10	36
8:30 AM	0	8	4	4	15	0	0	0	0	6	0	4	41
8:45 AM	0	7	2	5	11	0	0	0	0	5	0	9	39
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	55	16	40	74	0	0	0	0	40	0	54	279
APPROACH %	0%	77%	23%	35%	65%	0%	0%	0%	0%	43%	0%	57%	
APP/DEPART	71	/	109	114	/	114	0	/	56	94	/	0	0
BEGIN PEAK HR		7:45 AM											
VOLUMES	0	27	12	24	38	0	0	0	0	24	0	21	146
APPROACH %	0%	69%	31%	39%	61%	0%	0%	0%	0%	53%	0%	47%	
PEAK HR FACTOR		0.813			0.816			0.000			0.750		0.890
APP/DEPART	39	/	48	62	/	62	0	/	36	45	/	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	14	3	2	8	0	0	0	0	2	0	6	35
4:15 PM	0	6	1	6	11	0	0	0	0	0	0	5	29
4:30 PM	0	8	7	3	9	0	0	0	0	7	0	0	34
4:45 PM	0	6	6	7	7	0	0	0	0	2	0	4	32
5:00 PM	0	4	3	2	3	0	0	0	0	1	0	2	15
5:15 PM	0	8	2	0	3	0	0	0	0	1	0	1	15
5:30 PM	0	6	0	0	3	0	0	0	0	2	0	1	12
5:45 PM	0	3	1	2	6	0	0	0	0	2	0	1	15
VOLUMES	0	55	23	22	50	0	0	0	0	17	0	20	187
APPROACH %	0%	71%	29%	31%	69%	0%	0%	0%	0%	46%	0%	54%	
APP/DEPART	78	/	75	72	/	67	0	/	45	37	/	0	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	34	17	18	35	0	0	0	0	11	0	15	130
APPROACH %	0%	67%	33%	34%	66%	0%	0%	0%	0%	42%	0%	58%	
PEAK HR FACTOR		0.750			0.779			0.000			0.813		0.929
APP/DEPART	51	/	49	53	/	46	0	/	35	26	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Archibald	LOCATION #:	37
	EAST & WEST:	Limonite	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Archibald			SOUTHBOUND Archibald			EASTBOUND Limonite			WESTBOUND Limonite			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	X	1	1	1	1	X	X	X	X	1	X	1	
7:00 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	2	1	0	0	0	0	1	0	1	5
7:30 AM	0	0	0	2	3	0	0	0	0	0	0	0	5
7:45 AM	0	4	0	0	2	0	0	0	0	0	0	3	9
8:00 AM	0	1	3	0	2	0	0	0	0	1	0	2	9
8:15 AM	0	2	0	1	0	0	0	0	0	1	0	2	6
8:30 AM	0	1	0	2	2	0	0	0	0	1	0	0	6
8:45 AM	0	1	0	0	2	0	0	0	0	2	0	0	5
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	9	3	7	14	0	0	0	0	6	0	8	47
APPROACH %	0%	75%	25%	33%	67%	0%	0%	0%	0%	43%	0%	57%	
APP/DEPART	12	/	17	21	/	20	0	/	10	14	/	0	0
BEGIN PEAK HR		7:45 AM											
VOLUMES	0	8	3	3	6	0	0	0	0	3	0	7	30
APPROACH %	0%	73%	27%	33%	67%	0%	0%	0%	0%	30%	0%	70%	
PEAK HR FACTOR		0.688			0.563			0.000			0.833		0.833
APP/DEPART	11	/	15	9	/	9	0	/	6	10	/	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
4:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
4:30 PM	0	0	0	0	1	0	0	0	0	0	0	2	3
4:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	1	1	0	1	0	0	0	0	1	0	1	5
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	5	1	1	4	0	0	0	0	1	0	3	15
APPROACH %	0%	83%	17%	20%	80%	0%	0%	0%	0%	25%	0%	75%	
APP/DEPART	6	/	8	5	/	5	0	/	2	4	/	0	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	2	1	1	2	0	0	0	0	1	0	1	8
APPROACH %	0%	67%	33%	33%	67%	0%	0%	0%	0%	50%	0%	50%	
PEAK HR FACTOR		0.375			0.750			0.000			0.250		0.400
APP/DEPART	3	/	3	3	/	3	0	/	2	2	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Archibald	LOCATION #:	37
	EAST & WEST:	Limonite	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Archibald			SOUTHBOUND Archibald			EASTBOUND Limonite			WESTBOUND Limonite			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	X	1	1	1	1	X	X	X	X	1	X	1	
7:00 AM	0	1	0	0	2	0	0	0	0	3	0	1	7
7:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
7:30 AM	0	0	1	1	2	0	0	0	0	1	0	1	6
7:45 AM	0	0	1	1	1	0	0	0	0	0	0	3	6
8:00 AM	0	2	2	0	0	0	0	0	0	1	0	3	8
8:15 AM	0	3	1	0	9	0	0	0	0	2	0	0	15
8:30 AM	0	4	1	2	3	0	0	0	0	3	0	1	14
8:45 AM	0	3	0	0	2	0	0	0	0	2	0	1	8
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	13	6	4	20	0	0	0	0	12	0	10	65
APPROACH %	0%	68%	32%	17%	83%	0%	0%	0%	0%	55%	0%	45%	
APP/DEPART	19	/	23	24	/	32	0	/	10	22	/	0	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	0	12	4	2	14	0	0	0	0	8	0	5	45
APPROACH %	0%	75%	25%	13%	88%	0%	0%	0%	0%	62%	0%	38%	
PEAK HR FACTOR		0.800			0.444			0.000			0.813		0.750
APP/DEPART	16	/	17	16	/	22	0	/	6	13	/	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	2	0	0	2	0	0	0	0	0	0	0	4
4:15 PM	0	0	0	0	1	0	0	0	0	1	0	0	2
4:30 PM	0	1	0	1	3	0	0	0	0	1	0	1	7
4:45 PM	0	2	0	0	4	0	0	0	0	0	0	0	6
5:00 PM	0	0	0	1	3	0	0	0	0	0	0	0	4
5:15 PM	0	5	0	0	0	0	0	0	0	0	0	1	6
5:30 PM	0	0	1	0	2	0	0	0	0	1	0	0	4
5:45 PM	0	0	0	1	0	0	0	0	0	0	0	1	2
VOLUMES	0	10	1	3	15	0	0	0	0	3	0	3	35
APPROACH %	0%	91%	9%	17%	83%	0%	0%	0%	0%	50%	0%	50%	
APP/DEPART	11	/	13	18	/	18	0	/	4	6	/	0	0
BEGIN PEAK HR		4:30 PM											
VOLUMES	0	8	0	2	10	0	0	0	0	1	0	2	23
APPROACH %	0%	100%	0%	17%	83%	0%	0%	0%	0%	33%	0%	67%	
PEAK HR FACTOR		0.400			0.750			0.000			0.375		0.821
APP/DEPART	8	/	10	12	/	11	0	/	2	3	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Archibald	LOCATION #:	37
	EAST & WEST:	Limonite	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Archibald			SOUTHBOUND Archibald			EASTBOUND Limonite			WESTBOUND Limonite			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	X	1	1	1	1	X	X	X	X	1	X	1	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	1	1
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	
APP/DEPART	0	/	1	0	/	0	0	/	0	1	/	0	0
BEGIN PEAK HR	7:00 AM												
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	1	1
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	
PEAK HR FACTOR	0.000			0.000			0.000			0.250			0.250
APP/DEPART	0	/	1	0	/	0	0	/	0	1	/	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR	3:00 PM												
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR	0.000			0.000			0.000			0.000			0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

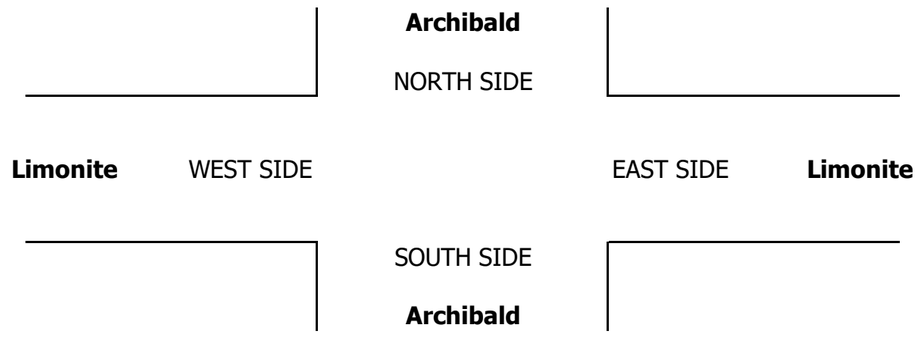
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Archibald	LOCATION #:	37
	EAST & WEST:	Limonite	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Archibald			SOUTHBOUND Archibald			EASTBOUND Limonite			WESTBOUND Limonite				U-TURNS					RTOR			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
	LANES:	X	1	1	1	1	X	X	X	X	1	X	1							0	X	X	0
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	1	1	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	1	1	0	0	0	0	0	0	2	0	1	5	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	50%	50%	0%	0%	0%	0%	0%	0%	67%	0%	33%										
	APP/DEPART	2	/	2	0	/	2	0	/	1	3	/	0	0									
	BEGIN PEAK HR		7:00 AM																				
	VOLUMES	0	1	1	0	0	0	0	0	0	0	0	1	3						0	0	0	0
	APPROACH %	0%	50%	50%	0%	0%	0%	0%	0%	0%	0%	0%	100%										
	PEAK HR FACTOR		0.250			0.000			0.000			0.250		0.375									
	APP/DEPART	2	/	2	0	/	0	0	/	1	1	/	0	0									
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%										
	APP/DEPART	0	/	1	0	/	0	0	/	0	1	/	0	0									
	BEGIN PEAK HR		4:15 PM																				
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	1	1						0	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%										
	PEAK HR FACTOR		0.000			0.000			0.000			0.250		0.250									
	APP/DEPART	0	/	1	0	/	0	0	/	0	1	/	0	0									



INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Jan 22, 19

LOCATION: Chino
NORTH & SOUTH: Archibald
EAST & WEST: Schleisman

PROJECT #: SC2056
LOCATION #: 39
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

N
W
E
S

☑ Add U-Turns to Left Turns

		NORTHBOUND Archibald			SOUTHBOUND Archibald			EASTBOUND Schleisman			WESTBOUND Schleisman			
	LANES:	NL 2	NT 3	NR 1	SL 2	ST 3	SR 1	EL 2	ET 3	ER 1	WL 2	WT 3	WR 1	TOTAL
AM	7:00 AM	35	166	65	26	75	86	85	105	28	44	149	31	895
	7:15 AM	66	231	74	38	115	110	92	94	30	77	147	34	1,108
	7:30 AM	65	191	37	21	103	95	105	96	32	99	202	48	1,094
	7:45 AM	63	163	32	12	122	106	86	69	20	24	180	20	897
	8:00 AM	54	122	16	15	92	105	108	134	28	28	142	30	874
	8:15 AM	48	102	15	32	103	92	84	116	44	24	117	21	798
	8:30 AM	57	123	15	19	103	96	80	76	32	17	132	14	764
	8:45 AM	41	91	21	17	90	78	68	71	32	18	107	4	638
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	429	1,189	275	180	803	768	708	761	246	331	1,176	202	7,068
	APPROACH %	23%	63%	15%	10%	46%	44%	41%	44%	14%	19%	69%	12%	
	APP/DEPART	1,893	/	2,002	1,751	/	1,382	1,715	/	1,218	1,709	/	2,466	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	229	751	208	97	415	397	368	364	110	244	678	133	3,994
	APPROACH %	19%	63%	18%	11%	46%	44%	44%	43%	13%	23%	64%	13%	
	PEAK HR FACTOR		0.801			0.864			0.903			0.756		0.901
	APP/DEPART	1,188	/	1,221	909	/	770	842	/	670	1,055	/	1,333	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	41	86	18	30	142	68	100	206	33	25	66	9	824
	4:15 PM	61	97	34	39	120	68	96	212	49	21	78	11	886
	4:30 PM	53	107	30	33	127	63	85	229	45	21	65	9	867
	4:45 PM	39	153	28	32	163	73	91	213	39	35	66	13	945
	5:00 PM	45	114	29	38	156	76	99	275	50	21	79	13	995
	5:15 PM	44	183	26	43	149	75	95	227	37	24	70	14	987
	5:30 PM	48	124	24	43	152	72	79	261	43	26	87	10	969
	5:45 PM	48	111	26	22	132	77	101	253	43	32	76	8	929
	VOLUMES	379	975	215	280	1,141	572	746	1,876	339	205	587	87	7,402
	APPROACH %	24%	62%	14%	14%	57%	29%	25%	63%	11%	23%	67%	10%	
	APP/DEPART	1,569	/	1,756	1,993	/	1,691	2,961	/	2,375	879	/	1,580	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	176	574	107	156	620	296	364	976	169	106	302	50	3,896
	APPROACH %	21%	67%	12%	15%	58%	28%	24%	65%	11%	23%	66%	11%	
	PEAK HR FACTOR		0.847			0.993			0.890			0.931		0.979
	APP/DEPART	857	/	957	1,072	/	898	1,509	/	1,241	458	/	800	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	
0	0	7	0	7
1	0	7	0	8
0	0	7	0	7
1	0	10	1	12
1	0	15	0	16
1	0	20	0	21
0	0	16	1	17
0	0	15	0	15
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
4	0	97	2	103
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	4	0	4
2	1	4	0	7
2	0	8	2	12
1	0	7	1	9
2	0	11	0	13
0	0	9	0	9
2	0	4	1	7
2	0	6	1	9
11	1	53	5	70

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
24	35	13	16
21	27	15	18
12	26	19	24
9	22	11	11
4	30	7	14
4	24	24	11
8	24	19	9
7	27	13	2
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
89	215	121	105
66	110	58	69
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
5	15	14	4
12	29	25	4
15	28	15	3
9	28	24	10
8	29	20	6
6	28	18	6
13	27	18	3
10	49	16	0
78	233	150	36
36	112	80	25

Archibald

NORTH SIDE

Schleisman WEST SIDE EAST SIDE **Schleisman**

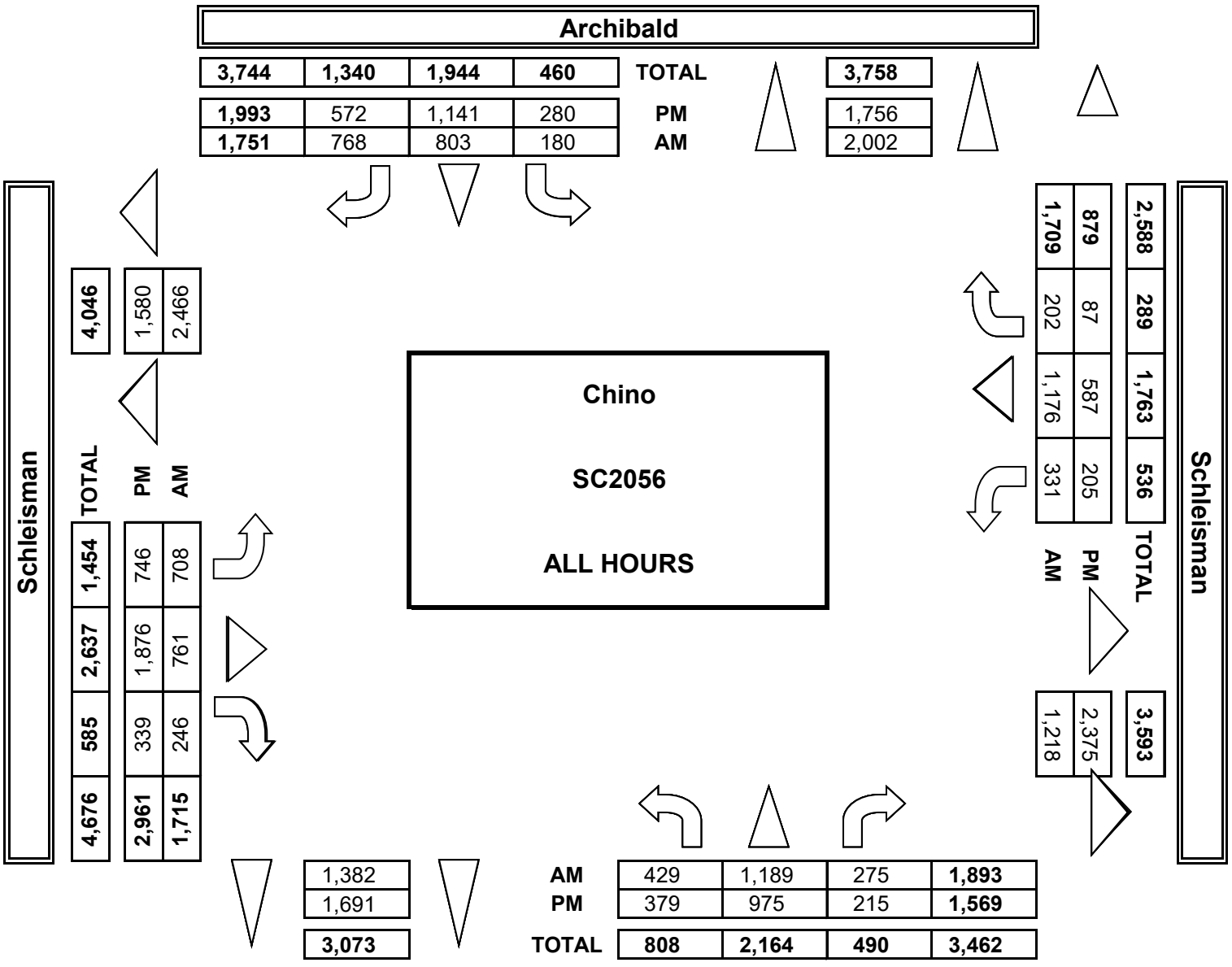
SOUTH SIDE

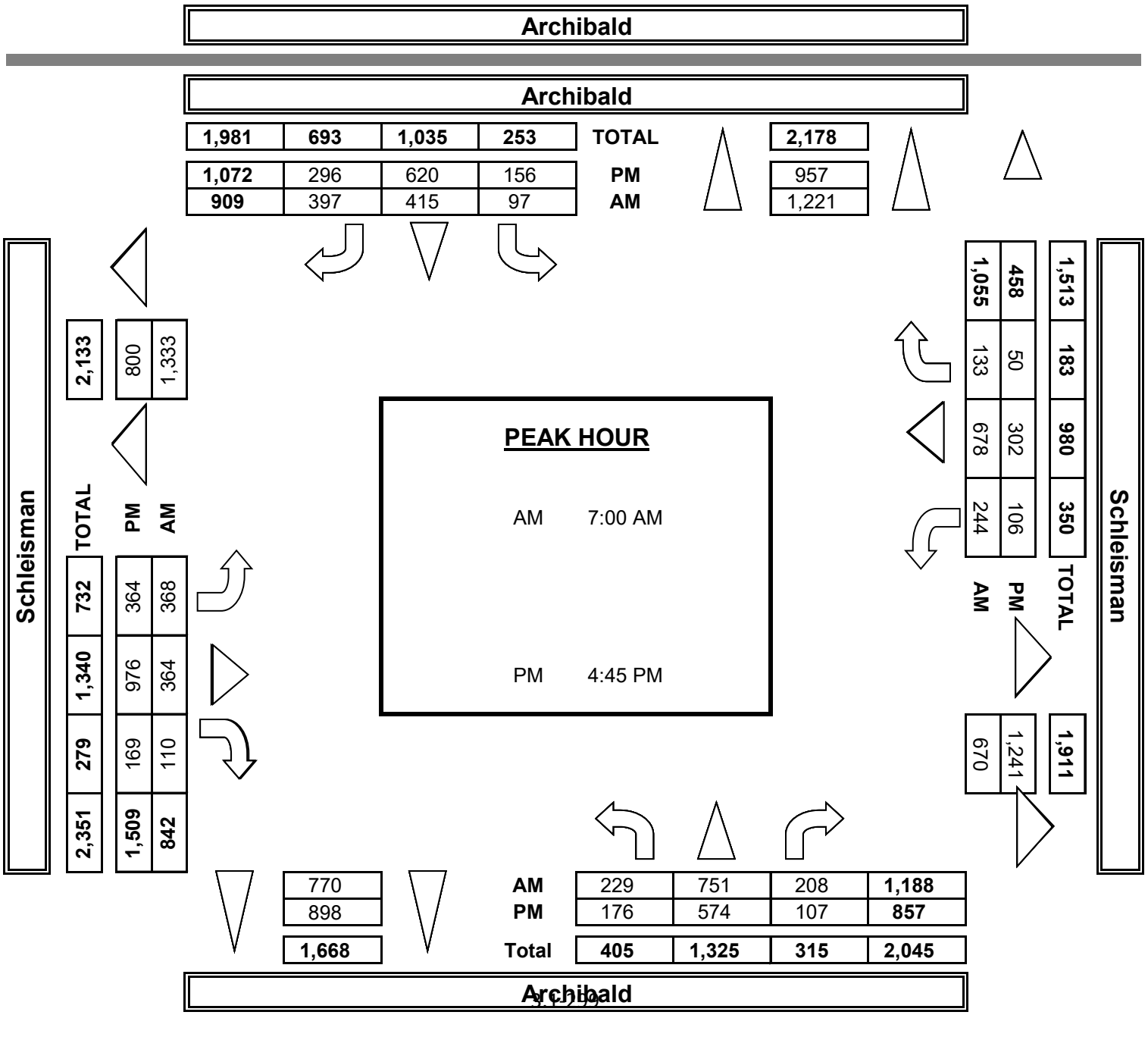
Archibald

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	1	5	0	6	0	1	4	0	5	0	0	1	0	1
	7:15 AM	0	1	1	1	3	0	0	0	0	0	0	1	1	1	3
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	2	0	0	0	2	2	0	0	0	2	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	2	2	6	2	12	2	1	4	0	7	0	1	2	2	5
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	1	0	1	2	4	1	0	1	2	4	0	0	0	0	0
	4:15 PM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
	4:30 PM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	4:45 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	5:00 PM	0	2	0	2	4	0	2	0	2	4	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	1	1	0	2	0	1	1	0	2	0	0	0	0	0
	TOTAL	2	4	2	5	13	1	4	2	5	12	1	0	0	0	1

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Archibald	LOCATION #:	39
	EAST & WEST:	Schleisman	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER

N ▲ ▼ S ◄ W E ►

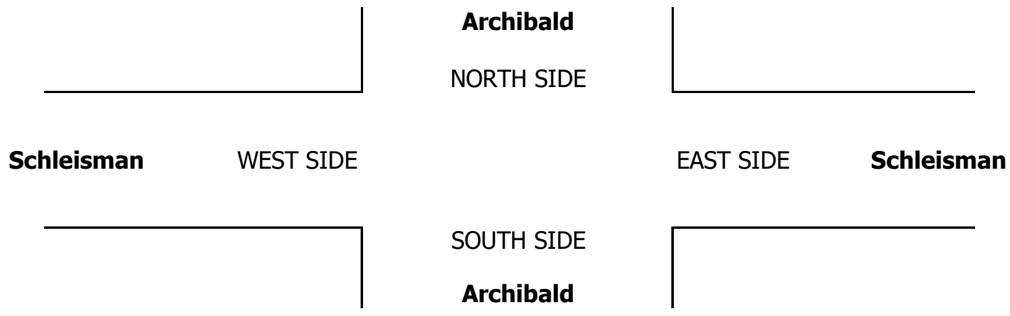
	NORTHBOUND Archibald			SOUTHBOUND Archibald			EASTBOUND Schleisman			WESTBOUND Schleisman			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	3	1	2	3	1	2	3	1	2	3	1	
7:00 AM	33	157	64	26	68	84	83	101	26	43	146	29	860
7:15 AM	61	223	74	35	106	98	87	89	30	73	145	34	1,055
7:30 AM	59	182	33	17	93	88	96	89	29	97	192	44	1,019
7:45 AM	59	149	29	10	111	97	82	64	17	22	171	19	830
8:00 AM	53	113	13	13	79	101	102	126	26	27	133	29	815
8:15 AM	45	96	15	29	92	84	77	107	44	23	113	21	746
8:30 AM	55	114	13	18	86	88	73	70	30	14	128	14	703
8:45 AM	39	84	18	16	75	70	65	68	29	17	103	4	588
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	404	1,118	259	164	710	710	665	714	231	316	1,131	194	6,616
APPROACH %	23%	63%	15%	10%	45%	45%	41%	44%	14%	19%	69%	12%	
APP/DEPART	1,781	/	1,883	1,584	/	1,261	1,610	/	1,137	1,641	/	2,335	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	210	711	200	88	378	367	319	343	102	235	654	126	3,764
APPROACH %	19%	63%	18%	11%	45%	44%	40%	43%	13%	23%	64%	12%	
PEAK HR FACTOR		0.784			0.871			0.926			0.762		0.892
APP/DEPART	1,123	/	1,156	833	/	717	793	/	631	1,015	/	1,260	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	40	73	17	29	130	66	95	194	31	24	63	9	771
4:15 PM	58	92	34	38	109	67	90	206	49	21	78	11	853
4:30 PM	53	98	29	31	119	61	81	223	42	19	62	9	827
4:45 PM	38	146	27	31	155	72	87	206	35	33	63	12	905
5:00 PM	45	108	28	36	150	75	97	271	49	20	78	13	970
5:15 PM	43	176	25	42	144	75	92	221	37	24	66	12	957
5:30 PM	47	117	24	43	149	69	77	255	42	24	87	10	944
5:45 PM	47	108	26	21	129	74	101	248	40	31	73	8	906
VOLUMES	371	918	210	271	1,085	559	720	1,824	325	196	570	84	7,133
APPROACH %	25%	61%	14%	14%	57%	29%	25%	64%	11%	23%	67%	10%	
APP/DEPART	1,499	/	1,669	1,915	/	1,615	2,869	/	2,306	850	/	1,543	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	177	509	103	142	572	293	337	995	168	99	304	43	3,777
APPROACH %	22%	64%	13%	14%	57%	29%	22%	65%	11%	22%	68%	10%	
PEAK HR FACTOR		0.814			0.965			0.917			0.921		0.973
APP/DEPART	794	/	889	1,007	/	844	1,530	/	1,240	446	/	804	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	7	0	7
1	0	6	0	7
0	0	6	0	6
1	0	10	0	11
1	0	15	0	16
1	0	20	0	21
0	0	15	0	15
0	0	15	0	15
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
4	0	94	0	98
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	4	0	4
2	0	4	0	6
2	0	8	1	11
1	0	7	0	8
2	0	11	0	13
0	0	9	0	9
1	0	4	0	5
2	0	6	0	8
10	0	53	1	64

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
24	35	12	15
21	26	15	18
12	25	17	24
9	20	11	11
3	29	7	13
4	21	24	11
6	23	18	9
7	25	11	2
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
86	204	115	103
66	106	55	68
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
4	14	14	4
12	29	25	4
15	27	15	3
9	28	22	9
8	29	20	6
6	28	18	6
13	25	18	3
10	46	13	0
77	226	145	35
37	128	69	15



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Archibald	LOCATION #:	39
	EAST & WEST:	Schleisman	CONTROL:	SIGNAL

CLASS 2:	NOTES:
2-AXLE WORK VEHICLES/ TRUCKS	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

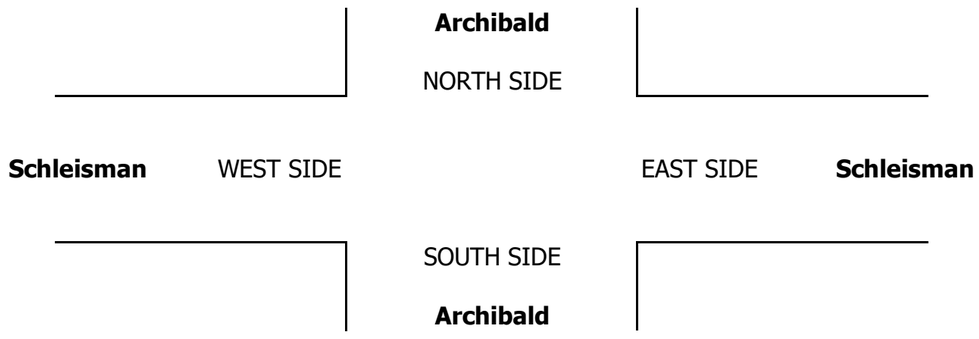
	NORTHBOUND Archibald			SOUTHBOUND Archibald			EASTBOUND Schleisman			WESTBOUND Schleisman			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	3	1	2	3	1	2	3	1	2	3	1	
7:00 AM	0	8	0	0	4	1	2	3	2	0	2	2	24
7:15 AM	3	6	0	3	8	7	3	5	0	3	1	0	39
7:30 AM	4	6	2	3	7	5	7	6	2	2	7	2	53
7:45 AM	4	11	0	1	11	7	2	4	2	1	4	0	47
8:00 AM	0	8	2	2	11	4	3	6	2	0	8	1	47
8:15 AM	3	5	0	3	7	4	3	6	0	1	4	0	36
8:30 AM	1	7	2	1	11	4	4	4	2	1	4	0	41
8:45 AM	2	6	3	1	9	3	3	1	2	1	4	0	35
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	17	57	9	14	68	35	27	35	12	9	34	5	322
APPROACH %	20%	69%	11%	12%	58%	30%	36%	47%	16%	19%	71%	10%	
APP/DEPART	83	/	86	117	/	89	74	/	58	48	/	89	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	11	31	4	9	37	23	13	21	6	6	20	3	186
APPROACH %	24%	67%	9%	13%	54%	33%	31%	50%	14%	21%	69%	10%	
PEAK HR FACTOR		0.767			0.908			0.700			0.659		0.877
APP/DEPART	46	/	47	69	/	49	42	/	34	29	/	56	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	1	9	1	0	10	2	5	11	2	1	2	0	44
4:15 PM	3	5	0	1	7	1	5	3	0	0	0	0	25
4:30 PM	0	8	1	2	5	2	4	3	2	1	2	0	30
4:45 PM	1	7	1	1	6	1	4	7	4	1	2	0	35
5:00 PM	0	6	1	1	3	1	2	2	1	1	1	0	19
5:15 PM	1	6	1	1	4	0	2	5	0	0	3	1	24
5:30 PM	0	4	0	0	2	1	1	5	1	1	0	0	15
5:45 PM	0	3	0	1	3	2	0	4	3	0	3	0	19
VOLUMES	6	48	5	7	40	10	23	40	13	5	13	1	211
APPROACH %	10%	81%	8%	12%	70%	18%	30%	53%	17%	26%	68%	5%	
APP/DEPART	59	/	73	57	/	58	76	/	51	19	/	29	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	5	29	3	3	28	6	18	24	8	3	6	0	134
APPROACH %	14%	78%	8%	8%	74%	16%	36%	48%	16%	33%	67%	0%	
PEAK HR FACTOR		0.841			0.792			0.694			0.750		0.761
APP/DEPART	37	/	48	38	/	39	50	/	30	9	/	17	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	1	0	1
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	3	0	3
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	1	1
0	1	0	0
0	0	1	0
0	0	0	0
0	1	0	1
0	1	0	0
2	0	1	0
0	1	2	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
2	4	5	2
0	2	1	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
0	0	0	0
0	1	0	0
0	0	2	0
0	0	0	0
0	0	0	0
0	1	0	0
0	2	3	0
1	5	5	0
1	2	2	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Archibald	LOCATION #:	39
	EAST & WEST:	Schleisman	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Archibald			SOUTHBOUND Archibald			EASTBOUND Schleisman			WESTBOUND Schleisman			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	3	1	2	3	1	2	3	1	2	3	1	
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	1
7:15 AM	1	0	0	0	0	1	1	0	0	0	1	0	4
7:30 AM	1	0	0	0	2	2	0	0	0	0	0	0	5
7:45 AM	0	1	0	0	0	2	1	0	0	0	1	0	5
8:00 AM	0	1	0	0	2	0	2	2	0	1	0	0	8
8:15 AM	0	0	0	0	0	1	1	0	0	0	0	0	2
8:30 AM	0	0	0	0	0	1	1	1	0	0	0	0	3
8:45 AM	0	0	0	0	3	4	0	1	0	0	0	0	8
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	2	2	0	0	7	11	6	4	0	2	2	0	36
APPROACH %	50%	50%	0%	0%	39%	61%	60%	40%	0%	50%	50%	0%	
APP/DEPART	4	/	8	18	/	9	10	/	4	4	/	15	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	2	2	0	0	4	5	4	2	0	1	2	0	22
APPROACH %	50%	50%	0%	0%	44%	56%	67%	33%	0%	33%	67%	0%	
PEAK HR FACTOR		1.000			0.563			0.375			0.750		0.688
APP/DEPART	4	/	6	9	/	5	6	/	2	3	/	9	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	1	0	0	1	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
5:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:30 PM	1	1	0	0	0	2	1	0	0	0	0	0	5
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	1	1	0	0	2	2	1	3	0	0	1	0	11
APPROACH %	50%	50%	0%	0%	50%	50%	25%	75%	0%	0%	100%	0%	
APP/DEPART	2	/	2	4	/	3	4	/	3	1	/	3	0
BEGIN PEAK HR		4:45 PM											
VOLUMES	0	1	0	0	1	2	1	1	0	0	1	0	8
APPROACH %	0%	50%	0%	0%	33%	67%	50%	50%	0%	0%	100%	0%	
PEAK HR FACTOR		0.250			0.375			0.500			0.250		0.400
APP/DEPART	2	/	2	3	/	2	2	/	1	1	/	3	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Archibald	LOCATION #:	39
	EAST & WEST:	Schleisman	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Archibald			SOUTHBOUND Archibald			EASTBOUND Schleisman			WESTBOUND Schleisman			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	3	1	2	3	1	2	3	1	2	3	1	
7:00 AM	1	1	1	0	2	1	0	1	0	0	1	0	8
7:15 AM	1	2	0	0	1	3	1	0	0	0	0	0	8
7:30 AM	0	1	1	1	1	0	1	0	0	0	2	0	7
7:45 AM	0	0	1	0	0	0	1	0	0	0	4	1	7
8:00 AM	0	0	0	0	0	0	1	0	0	0	1	0	2
8:15 AM	0	1	0	0	3	2	3	3	0	0	0	0	12
8:30 AM	1	1	0	0	5	3	2	1	0	0	0	0	13
8:45 AM	0	1	0	0	2	1	0	0	1	0	0	0	5
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	3	7	3	1	14	10	9	5	1	0	8	1	62
APPROACH %	23%	54%	23%	4%	56%	40%	60%	33%	7%	0%	89%	11%	
APP/DEPART	13	/	17	25	/	15	15	/	9	9	/	21	0
BEGIN PEAK HR	7:45 AM												
VOLUMES	1	2	1	0	8	5	7	4	0	0	5	1	34
APPROACH %	25%	50%	25%	0%	62%	38%	64%	36%	0%	0%	83%	17%	
PEAK HR FACTOR		0.500			0.406			0.458			0.300		0.654
APP/DEPART	4	/	10	13	/	8	11	/	5	6	/	11	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	4	0	1	1	0	0	0	0	0	1	0	7
4:15 PM	0	0	0	0	3	0	1	2	0	0	0	0	6
4:30 PM	0	1	0	0	3	0	0	2	1	0	0	0	7
4:45 PM	0	0	0	0	2	0	0	0	0	0	0	1	3
5:00 PM	0	0	0	1	2	0	0	2	0	0	0	0	5
5:15 PM	0	1	0	0	1	0	1	0	0	0	1	1	5
5:30 PM	0	2	0	0	1	0	0	1	0	0	0	0	4
5:45 PM	1	0	0	0	0	1	0	1	0	0	0	0	3
VOLUMES	1	8	0	2	13	1	2	8	1	0	2	2	40
APPROACH %	11%	89%	0%	13%	81%	6%	18%	73%	9%	0%	50%	50%	
APP/DEPART	9	/	12	16	/	14	11	/	10	4	/	4	0
BEGIN PEAK HR	4:00 PM												
VOLUMES	0	5	0	1	9	0	1	4	1	0	1	1	23
APPROACH %	0%	100%	0%	10%	90%	0%	17%	67%	17%	0%	50%	50%	
PEAK HR FACTOR		0.313			0.833			0.500			0.500		0.821
APP/DEPART	5	/	7	10	/	10	6	/	5	2	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Archibald	LOCATION #:	39
	EAST & WEST:	Schleisman	CONTROL:	SIGNAL

CLASS 5:	NOTES:
RV	

AM ▲ N
PM ◄ W E ►
MD S ▼
OTHER
OTHER

	NORTHBOUND Archibald			SOUTHBOUND Archibald			EASTBOUND Schleisman			WESTBOUND Schleisman			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	3	1	2	3	1	2	3	1	2	3	1	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR	7:00 AM												
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR	0.000			0.000			0.000			0.000			0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR	3:00 PM												
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR	0.000			0.000			0.000			0.000			0.000
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
1/22/19	LOCATION:	Chino	PROJECT #:	SC2056
TUESDAY	NORTH & SOUTH:	Archibald	LOCATION #:	39
	EAST & WEST:	Schleisman	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Archibald			SOUTHBOUND Archibald			EASTBOUND Schleisman			WESTBOUND Schleisman			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	3	1	2	3	1	2	3	1	2	3	1	
7:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	1	0	0	0	1	0	0	2
7:30 AM	1	2	1	0	0	0	1	1	1	0	1	2	10
7:45 AM	0	2	2	1	0	0	0	1	1	0	0	0	7
8:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	2
8:15 AM	0	0	0	0	1	1	0	0	0	0	0	0	2
8:30 AM	0	1	0	0	1	0	0	0	0	1	0	0	3
8:45 AM	0	0	0	0	1	0	0	1	0	0	0	0	2
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	3	5	4	1	4	2	1	3	2	2	1	2	30
APPROACH %	25%	42%	33%	14%	57%	29%	17%	50%	33%	40%	20%	40%	
APP/DEPART	12	/	8	7	/	8	6	/	8	5	/	6	0
BEGIN PEAK HR		7:00 AM											
VOLUMES	2	4	4	1	1	1	1	2	2	0	1	2	21
APPROACH %	20%	40%	40%	33%	33%	33%	20%	40%	40%	0%	33%	67%	
PEAK HR FACTOR		0.625			0.375			0.417			0.250		0.525
APP/DEPART	10	/	7	3	/	3	5	/	7	3	/	4	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	1	0	0	1	0	0	1	0	3
APPROACH %	0%	0%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	
APP/DEPART	0	/	0	1	/	1	1	/	1	1	/	1	0
BEGIN PEAK HR		3:45 PM											
VOLUMES	0	0	0	0	1	0	0	1	0	0	1	0	3
APPROACH %	0%	0%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.250			0.250			0.250		0.375
APP/DEPART	0	/	0	1	/	1	1	/	1	1	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

A816

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, February 12, 2019 **CITY:** Chino

JOB #: SC2081 **LOCATION:** Mountain south of Bickmore

AM TIME	1	2	3	4	5	6	TOTAL	PM Time	1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0	12:00	1	0	0	0	0	0	1
0:15	0	0	0	0	0	0	0	12:15	1	0	0	2	0	0	3
0:30	1	0	0	0	0	0	1	12:30	5	0	0	0	0	0	5
0:45	1	0	0	0	0	0	1	12:45	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	13:00	5	0	1	0	0	0	6
1:15	0	0	0	0	0	0	0	13:15	1	1	0	0	0	0	2
1:30	0	0	0	0	0	0	0	13:30	4	0	0	0	0	0	4
1:45	0	0	0	0	0	0	0	13:45	1	0	0	0	0	0	1
2:00	0	0	0	0	0	0	0	14:00	1	2	0	0	0	0	3
2:15	0	0	0	0	0	0	0	14:15	3	1	0	0	0	0	4
2:30	0	0	0	1	0	0	1	14:30	2	1	2	0	0	0	5
2:45	0	0	0	0	0	0	0	14:45	5	0	0	0	0	0	5
3:00	1	1	0	0	0	0	2	15:00	2	0	0	1	0	0	3
3:15	0	0	0	0	0	0	0	15:15	5	0	0	0	0	0	5
3:30	0	0	0	0	0	0	0	15:30	1	0	0	0	0	0	1
3:45	0	0	0	0	0	0	0	15:45	3	0	0	0	0	0	3
4:00	0	0	0	0	0	0	0	16:00	6	0	0	0	0	0	6
4:15	1	0	0	0	0	0	1	16:15	6	0	0	1	0	0	7
4:30	1	0	0	0	0	0	1	16:30	9	0	0	1	0	0	10
4:45	0	0	0	0	0	0	0	16:45	7	0	0	0	0	0	7
5:00	0	0	0	0	0	0	0	17:00	8	0	0	0	0	0	8
5:15	1	0	0	1	0	0	2	17:15	8	0	0	0	0	0	8
5:30	0	0	0	0	0	0	0	17:30	8	0	0	0	0	0	8
5:45	0	0	0	1	0	0	1	17:45	8	0	0	0	0	0	8
6:00	1	0	0	0	0	0	1	18:00	3	1	0	0	0	0	4
6:15	0	0	0	0	0	0	0	18:15	5	0	0	0	0	0	5
6:30	1	0	0	0	0	0	1	18:30	3	0	0	0	0	0	3
6:45	4	0	0	2	0	0	6	18:45	0	0	0	0	0	0	0
7:00	1	0	0	0	0	0	1	19:00	3	0	0	1	0	0	4
7:15	3	0	0	0	0	0	3	19:15	5	1	0	0	0	0	6
7:30	3	1	0	0	0	0	4	19:30	2	0	0	0	0	0	2
7:45	2	2	1	0	0	0	5	19:45	0	0	0	1	0	0	1
8:00	3	0	0	1	0	0	4	20:00	0	1	0	0	0	0	1
8:15	1	0	0	0	0	0	1	20:15	0	0	0	0	0	0	0
8:30	2	0	0	0	0	0	2	20:30	0	0	0	0	0	0	0
8:45	1	0	0	0	0	0	1	20:45	0	0	0	0	0	0	0
9:00	1	1	0	1	0	0	3	21:00	0	0	0	0	0	0	0
9:15	0	0	0	1	0	0	1	21:15	0	0	0	0	0	0	0
9:30	1	0	0	0	0	0	1	21:30	2	0	0	0	0	0	2
9:45	3	0	0	0	0	0	3	21:45	1	0	0	1	0	0	2
10:00	1	0	0	1	0	0	2	22:00	0	0	0	0	0	0	0
10:15	2	3	0	0	0	0	5	22:15	0	0	0	0	0	0	0
10:30	1	0	0	0	0	0	1	22:30	1	0	0	0	0	0	1
10:45	2	2	0	0	0	0	4	22:45	0	0	0	0	0	0	0
11:00	2	0	0	3	0	0	5	23:00	0	0	0	0	0	0	0
11:15	1	0	0	0	0	0	1	23:15	0	0	0	0	0	0	0
11:30	2	0	0	1	0	0	3	23:30	1	0	0	0	0	0	1
11:45	2	0	0	0	0	0	2	23:45	1	0	0	0	0	0	1
TOTAL	46	10	1	13	0	0	70	**TOTAL**	127	8	3	8	0	0	146
				AM PEAK HOUR			7:15 AM					**AM PEAK HOUR**			4:30 PM
				AM PEAK VOLUME			16					**AM PEAK VOLUME**			33

CLASS 1	PASSENGER VEHICLES	**TOTAL: AM+PM**	173	18	4	21	0	0	216
CLASS 2	2-AXLE TRUCKS	**% OF TOTAL**	80.1%	8.3%	1.9%	9.7%	0.0%	0.0%	100.0%
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV	**TOTAL: ALL**	341	38	7	60	0	0	446
CLASS 6	Buses	**% OF TOTAL**	76.5%	8.5%	1.6%	13.5%	0.0%	0.0%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, February 12, 2019
JOB #: SC2081
CITY: Chino
LOCATION: Mountain south of Bickmore

AM TIME	1	2	3	4	5	6	TOTAL	PM Time	1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0	12:00	1	0	0	1	0	0	2
0:15	0	0	0	0	0	0	0	12:15	0	0	0	0	0	0	0
0:30	0	0	0	1	0	0	1	12:30	3	0	0	3	0	0	6
0:45	0	0	0	0	0	0	0	12:45	0	0	0	1	0	0	1
1:00	0	0	0	0	0	0	0	13:00	6	0	0	2	0	0	8
1:15	0	0	0	0	0	0	0	13:15	2	0	0	1	0	0	3
1:30	0	0	0	0	0	0	0	13:30	3	1	0	0	0	0	4
1:45	1	0	0	0	0	0	1	13:45	2	1	0	0	0	0	3
2:00	0	0	0	0	0	0	0	14:00	0	0	0	1	0	0	1
2:15	0	0	0	0	0	0	0	14:15	0	0	0	2	0	0	2
2:30	0	0	0	0	0	0	0	14:30	4	1	0	0	0	0	5
2:45	0	0	0	0	0	0	0	14:45	1	0	0	3	0	0	4
3:00	0	0	0	0	0	0	0	15:00	2	0	0	0	0	0	2
3:15	1	0	0	0	0	0	1	15:15	4	2	0	1	0	0	7
3:30	0	1	0	0	0	0	1	15:30	1	0	0	1	0	0	2
3:45	1	0	0	0	0	0	1	15:45	0	1	0	0	0	0	1
4:00	0	0	0	0	0	0	0	16:00	1	0	0	0	0	0	1
4:15	0	0	0	0	0	0	0	16:15	0	0	0	0	0	0	0
4:30	0	0	0	0	0	0	0	16:30	3	0	0	0	0	0	3
4:45	1	0	0	0	0	0	1	16:45	2	0	1	1	0	0	4
5:00	1	0	0	0	0	0	1	17:00	0	0	0	0	0	0	0
5:15	1	0	0	1	0	0	2	17:15	3	0	0	2	0	0	5
5:30	4	0	0	0	0	0	4	17:30	1	0	0	0	0	0	1
5:45	2	0	0	1	0	0	3	17:45	0	0	0	0	0	0	0
6:00	3	1	0	0	0	0	4	18:00	0	0	0	2	0	0	2
6:15	7	0	0	1	0	0	8	18:15	1	0	0	0	0	0	1
6:30	6	0	0	3	0	0	9	18:30	0	0	0	0	0	0	0
6:45	14	0	1	0	0	0	15	18:45	1	0	0	0	0	0	1
7:00	23	0	0	2	0	0	25	19:00	2	0	0	0	0	0	2
7:15	12	0	0	0	0	0	12	19:15	0	0	0	0	0	0	0
7:30	10	1	0	0	0	0	11	19:30	1	0	0	0	0	0	1
7:45	5	0	0	0	0	0	5	19:45	0	0	0	0	0	0	0
8:00	6	0	0	0	0	0	6	20:00	1	0	0	0	0	0	1
8:15	2	1	0	0	0	0	3	20:15	0	0	0	0	0	0	0
8:30	2	0	0	0	0	0	2	20:30	0	1	0	1	0	0	2
8:45	1	0	0	0	0	0	1	20:45	1	0	0	0	0	0	1
9:00	0	1	0	0	0	0	1	21:00	0	0	0	0	0	0	0
9:15	2	0	0	0	0	0	2	21:15	0	0	0	0	0	0	0
9:30	2	0	0	0	0	0	2	21:30	0	3	0	0	0	0	3
9:45	1	1	0	0	0	0	2	21:45	0	0	0	0	0	0	0
10:00	2	0	0	0	0	0	2	22:00	0	0	0	0	0	0	0
10:15	1	0	0	1	0	0	2	22:15	0	0	0	0	0	0	0
10:30	2	0	0	2	0	0	4	22:30	1	0	0	0	0	0	1
10:45	0	0	0	1	0	0	1	22:45	0	0	0	0	0	0	0
11:00	2	0	0	0	0	0	2	23:00	0	2	0	0	0	0	2
11:15	1	1	0	2	0	0	4	23:15	0	0	0	0	0	0	0
11:30	3	1	1	1	0	0	6	23:30	0	0	0	0	0	0	0
11:45	1	0	0	1	0	0	2	23:45	1	0	0	0	0	0	1
TOTAL	120	8	2	17	0	0	147	TOTAL	48	12	1	22	0	0	83
				AM PEAK HOUR			6:45 AM					AM PEAK HOUR			2:30 PM
				AM PEAK VOLUME			63					AM PEAK VOLUME			18

CLASS 1	PASSENGER VEHICLES	**TOTAL: AM+PM**	168	20	3	39	0	0	230
CLASS 2	2-AXLE TRUCKS	**% OF TOTAL**	73.0%	8.7%	1.3%	17.0%	0.0%	0.0%	100.0%
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV								
CLASS 6	BUS								

A816

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, February 12, 2019 **CITY:** Chino

JOB #: SC2081 **LOCATION:** Bickmore east of Mountain

AM TIME	1	2	3	4	5	6	TOTAL	PM Time	1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0	12:00	6	0	1	1	0	0	8
0:15	0	0	0	0	0	0	0	12:15	2	0	2	1	0	0	5
0:30	1	0	0	0	0	0	1	12:30	7	0	1	3	0	0	11
0:45	0	0	0	0	0	0	0	12:45	6	1	2	2	0	0	11
1:00	0	0	0	0	0	0	0	13:00	4	2	1	2	0	0	9
1:15	0	0	0	0	0	0	0	13:15	3	2	0	0	0	0	5
1:30	0	2	0	0	0	0	2	13:30	10	0	1	0	0	0	11
1:45	0	0	0	0	0	0	0	13:45	3	0	0	0	0	0	3
2:00	0	0	1	0	0	0	1	14:00	5	3	0	2	0	0	10
2:15	0	0	2	0	0	0	2	14:15	2	1	1	1	0	0	5
2:30	1	0	0	0	0	0	1	14:30	15	2	2	2	0	0	21
2:45	0	0	0	0	0	0	0	14:45	7	2	0	0	0	0	9
3:00	1	0	0	0	0	0	1	15:00	7	2	1	3	0	0	13
3:15	0	0	0	0	0	0	0	15:15	8	1	0	2	0	0	11
3:30	1	0	1	0	0	0	2	15:30	15	1	0	4	0	0	20
3:45	3	1	1	0	0	0	5	15:45	11	2	0	4	0	0	17
4:00	0	0	0	0	0	0	0	16:00	12	0	2	0	0	0	14
4:15	0	0	0	2	0	0	2	16:15	15	0	0	1	0	0	16
4:30	1	0	1	1	0	0	3	16:30	20	1	0	0	0	0	21
4:45	0	0	0	0	0	0	0	16:45	11	0	0	0	0	0	11
5:00	1	0	0	0	0	0	1	17:00	14	2	1	1	0	0	18
5:15	2	0	0	0	0	0	2	17:15	18	0	0	0	0	0	18
5:30	1	0	0	1	0	0	2	17:30	23	1	0	1	0	0	25
5:45	3	0	0	1	0	0	4	17:45	13	0	1	0	0	0	14
6:00	2	0	1	0	0	1	4	18:00	7	1	1	0	0	0	9
6:15	2	0	0	1	0	0	3	18:15	9	0	0	1	0	0	10
6:30	4	0	2	3	0	0	9	18:30	7	3	0	1	0	0	11
6:45	5	0	1	2	0	0	8	18:45	9	0	0	0	0	0	9
7:00	2	1	1	1	0	0	5	19:00	5	2	0	1	0	0	8
7:15	6	0	1	2	0	0	9	19:15	10	0	0	0	0	0	10
7:30	4	0	1	1	0	1	7	19:30	2	0	0	0	0	0	2
7:45	5	0	2	0	0	0	7	19:45	1	1	0	0	0	0	2
8:00	1	0	1	0	0	0	2	20:00	3	1	1	0	0	0	5
8:15	3	1	2	1	0	0	7	20:15	3	1	1	0	0	0	5
8:30	3	3	1	0	0	0	7	20:30	1	0	0	0	0	0	1
8:45	4	0	2	0	0	0	6	20:45	3	0	0	0	0	0	3
9:00	2	3	0	1	0	0	6	21:00	1	0	0	0	0	0	1
9:15	0	0	2	0	0	0	2	21:15	1	0	0	0	0	0	1
9:30	1	2	0	1	0	0	4	21:30	3	2	1	2	0	0	8
9:45	4	1	1	0	0	0	6	21:45	3	0	0	0	0	0	3
10:00	2	0	1	0	0	0	3	22:00	0	0	0	0	0	0	0
10:15	1	0	1	2	0	0	4	22:15	1	0	0	0	0	0	1
10:30	3	0	1	0	0	0	4	22:30	4	0	0	0	0	0	4
10:45	7	0	1	2	0	0	10	22:45	0	0	0	2	0	0	2
11:00	8	0	1	4	0	0	13	23:00	4	2	0	1	0	0	7
11:15	7	1	2	0	0	0	10	23:15	1	0	0	0	0	0	1
11:30	6	0	2	1	0	0	9	23:30	4	0	1	0	0	0	5
11:45	5	2	1	0	0	0	8	23:45	2	0	0	0	0	0	2
TOTAL	102	17	34	27	0	2	182	TOTAL	321	36	21	38	0	0	416
				AM PEAK HOUR			10:45 AM					AM PEAK HOUR			5:00 PM
				AM PEAK VOLUME			42					AM PEAK VOLUME			75

CLASS 1	PASSENGER VEHICLES	TOTAL: AM+PM	423	53	55	65	0	2	598
CLASS 2	2-AXLE TRUCKS	% OF TOTAL	70.7%	8.9%	9.2%	10.9%	0.0%	0.3%	100.0%
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV	TOTAL: ALL	1,259	108	107	195	0	4	1,673
CLASS 6	Buses	% OF TOTAL	75.3%	6.5%	6.4%	11.7%	0.0%	0.2%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, February 12, 2019
JOB #: SC2081
CITY: Chino
LOCATION: Bickmore east of Mountain

AM TIME	1	2	3	4	5	6	TOTAL	PM Time	1	2	3	4	5	6	TOTAL
0:00	1	0	0	0	0	0	1	12:00	4	1	0	4	0	0	9
0:15	1	0	0	0	0	0	1	12:15	7	0	1	2	0	0	10
0:30	0	0	1	0	0	0	1	12:30	4	1	0	3	0	0	8
0:45	2	0	0	0	0	0	2	12:45	3	1	0	3	0	0	7
1:00	0	0	2	0	0	0	2	13:00	8	1	0	4	0	0	13
1:15	2	0	0	0	0	0	2	13:15	7	1	1	1	0	0	10
1:30	0	0	0	0	0	0	0	13:30	9	0	1	0	0	0	10
1:45	3	0	0	1	0	0	4	13:45	12	3	0	2	0	0	17
2:00	2	0	0	2	0	0	4	14:00	8	1	0	1	0	0	10
2:15	0	0	0	1	0	0	1	14:15	9	1	1	1	0	0	12
2:30	0	0	0	0	0	0	0	14:30	6	3	2	0	0	0	11
2:45	1	0	0	0	0	0	1	14:45	9	1	2	0	0	0	12
3:00	0	0	0	1	0	0	1	15:00	4	1	0	1	0	0	6
3:15	0	0	0	0	0	0	0	15:15	8	4	1	2	0	0	15
3:30	0	1	0	0	0	0	1	15:30	19	1	1	1	0	0	22
3:45	1	0	1	2	0	0	4	15:45	10	2	0	3	0	0	15
4:00	1	0	1	2	0	0	4	16:00	5	0	0	1	0	0	6
4:15	2	0	1	0	0	0	3	16:15	4	0	0	0	0	0	4
4:30	5	0	1	1	0	0	7	16:30	15	0	0	1	0	0	16
4:45	9	0	1	0	0	0	10	16:45	16	1	1	1	0	0	19
5:00	6	0	0	2	0	0	8	17:00	7	1	0	1	0	0	9
5:15	5	1	0	4	0	0	10	17:15	10	0	0	3	0	0	13
5:30	22	0	1	3	0	0	26	17:30	5	1	2	1	0	0	9
5:45	25	0	5	4	0	0	34	17:45	2	0	0	1	0	0	3
6:00	21	0	9	1	0	0	31	18:00	9	0	1	0	0	0	10
6:15	27	0	0	5	0	0	32	18:15	3	1	0	0	0	0	4
6:30	31	0	0	1	0	0	32	18:30	3	0	0	0	0	0	3
6:45	64	2	1	3	0	1	71	18:45	3	0	0	2	0	0	5
7:00	62	0	0	6	0	0	68	19:00	7	0	0	3	0	0	10
7:15	47	2	0	1	0	1	51	19:15	2	1	0	0	0	0	3
7:30	40	2	0	2	0	0	44	19:30	5	0	0	0	0	0	5
7:45	43	0	0	1	0	0	44	19:45	1	0	0	1	0	0	2
8:00	26	1	0	1	0	0	28	20:00	3	0	0	0	0	0	3
8:15	23	1	0	1	0	0	25	20:15	1	1	1	1	0	0	4
8:30	15	2	1	3	0	0	21	20:30	1	0	0	0	0	0	1
8:45	13	1	0	3	0	0	17	20:45	1	0	1	0	0	0	2
9:00	11	1	0	2	0	0	14	21:00	2	0	0	0	0	0	2
9:15	10	0	0	3	0	0	13	21:15	1	0	0	1	0	0	2
9:30	14	0	0	3	0	0	17	21:30	3	0	2	0	0	0	5
9:45	3	2	0	3	0	0	8	21:45	1	1	0	0	0	0	2
10:00	17	3	0	4	0	0	24	22:00	0	2	0	2	0	0	4
10:15	8	0	0	2	0	0	10	22:15	2	0	2	0	0	0	4
10:30	5	0	0	1	0	0	6	22:30	0	0	0	1	0	0	1
10:45	6	0	1	1	0	0	8	22:45	0	0	0	0	0	0	0
11:00	4	0	1	4	0	0	9	23:00	1	0	0	0	0	0	1
11:15	6	2	1	4	0	0	13	23:15	2	0	0	0	0	0	2
11:30	3	3	2	1	0	0	9	23:30	0	0	1	0	0	0	1
11:45	7	0	1	3	0	0	11	23:45	0	0	0	0	0	0	0
TOTAL	594	24	31	82	0	2	733	TOTAL	242	31	21	48	0	0	342
			AM PEAK HOUR				6:45 AM					AM PEAK HOUR			3:15 PM
			AM PEAK VOLUME				234					AM PEAK VOLUME			58

CLASS 1	PASSENGER VEHICLES	**TOTAL: AM+PM**	836	55	52	130	0	2	1,075
CLASS 2	2-AXLE TRUCKS	**% OF TOTAL**	77.8%	5.1%	4.8%	12.1%	0.0%	0.2%	100.0%
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV								
CLASS 6	BUS								

A816

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Wednesday, February 06, 2019 **CITY:** Chino

JOB #: SC2081 **LOCATION:** Kimball east of Rincon Meadows

AM TIME	1	2	3	4	5	6	TOTAL	PM Time	1	2	3	4	5	6	TOTAL
0:00	8	0	0	0	0	0	8	12:00	76	7	0	5	0	0	88
0:15	12	1	0	2	0	0	15	12:15	78	0	0	6	0	0	84
0:30	11	0	0	0	0	0	11	12:30	82	3	0	1	0	0	86
0:45	7	1	0	0	0	0	8	12:45	72	6	1	0	0	0	79
1:00	6	2	0	0	0	0	8	13:00	79	6	0	5	0	0	90
1:15	4	0	0	1	0	0	5	13:15	96	4	0	4	0	0	104
1:30	6	0	0	0	0	0	6	13:30	89	1	0	4	0	1	95
1:45	7	0	0	1	0	0	8	13:45	94	5	0	6	0	0	105
2:00	6	0	0	0	0	0	6	14:00	88	8	3	4	0	2	105
2:15	7	0	0	1	0	0	8	14:15	96	5	2	0	0	0	103
2:30	8	0	0	1	0	0	9	14:30	113	8	0	2	0	4	127
2:45	7	1	0	0	0	0	8	14:45	151	9	1	1	0	0	162
3:00	5	0	0	1	0	0	6	15:00	160	4	0	4	0	0	168
3:15	4	0	0	0	0	0	4	15:15	161	4	0	5	0	0	170
3:30	16	0	0	2	0	0	18	15:30	178	10	1	2	0	0	191
3:45	12	0	0	1	0	0	13	15:45	188	8	4	3	0	1	204
4:00	4	1	0	0	0	0	5	16:00	177	4	0	3	0	0	184
4:15	4	0	3	1	0	0	8	16:15	175	9	1	2	0	0	187
4:30	3	0	1	0	0	0	4	16:30	235	5	0	2	0	0	242
4:45	13	0	0	1	0	0	14	16:45	237	9	0	0	0	0	246
5:00	23	1	2	1	0	0	27	17:00	234	9	1	1	0	0	245
5:15	25	1	1	0	0	0	27	17:15	226	7	1	1	0	0	235
5:30	36	1	1	0	0	0	38	17:30	242	6	1	3	0	0	252
5:45	53	1	3	1	0	0	58	17:45	257	5	0	1	0	0	263
6:00	53	5	1	1	0	1	61	18:00	245	6	0	1	0	0	252
6:15	52	2	0	3	0	1	58	18:15	220	3	0	1	0	0	224
6:30	46	5	1	0	0	2	54	18:30	191	5	0	4	0	0	200
6:45	54	2	2	1	0	2	61	18:45	196	2	0	5	1	0	204
7:00	64	6	1	0	0	0	71	19:00	162	3	0	0	0	0	165
7:15	80	8	2	1	0	2	93	19:15	149	1	0	1	0	0	151
7:30	88	3	0	3	0	1	95	19:30	136	2	0	1	0	0	139
7:45	69	4	1	2	0	1	77	19:45	137	1	0	2	0	0	140
8:00	126	6	0	1	0	0	133	20:00	103	1	0	2	0	0	106
8:15	92	13	0	0	0	0	105	20:15	134	2	0	0	0	0	136
8:30	68	5	1	5	0	0	79	20:30	115	3	0	2	0	0	120
8:45	78	3	1	0	0	0	82	20:45	107	2	0	4	0	0	113
9:00	61	3	1	1	0	0	66	21:00	97	2	0	0	0	0	99
9:15	49	4	3	1	0	0	57	21:15	85	1	0	2	0	0	88
9:30	44	6	0	5	0	0	55	21:30	63	0	0	3	0	0	66
9:45	47	5	1	5	0	0	58	21:45	75	0	0	3	0	0	78
10:00	56	0	0	2	0	0	58	22:00	51	2	0	1	0	0	54
10:15	55	7	1	5	0	2	70	22:15	59	1	0	2	0	0	62
10:30	42	2	0	2	0	0	46	22:30	36	1	0	0	0	0	37
10:45	54	8	0	0	0	0	62	22:45	31	1	0	1	0	0	33
11:00	51	2	1	2	0	1	57	23:00	36	0	0	1	0	0	37
11:15	59	7	0	5	0	0	71	23:15	37	0	0	1	0	0	38
11:30	55	4	0	1	0	0	60	23:30	22	1	1	0	0	0	24
11:45	67	0	0	2	0	0	69	23:45	8	0	0	0	0	0	8
TOTAL	1,797	120	28	62	0	13	2,020	**TOTAL**	6,079	182	17	102	1	8	6,389
				AM PEAK HOUR			7:30 AM						**AM PEAK HOUR**		5:15 PM
				AM PEAK VOLUME			410						**AM PEAK VOLUME**		1,002

CLASS 1	PASSENGER VEHICLES	**TOTAL: AM+PM**	7,876	302	45	164	1	21	8,409
CLASS 2	2-AXLE TRUCKS	**% OF TOTAL**	93.7%	3.6%	0.5%	2.0%	0.0%	0.2%	100.0%
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV	**TOTAL: ALL**	15,096	583	93	309	2	44	16,127
CLASS 6	Buses	**% OF TOTAL**	93.6%	3.6%	0.6%	1.9%	0.0%	0.3%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Wednesday, February 06, 2019
JOB #: SC2081
CITY: Chino
LOCATION: Kimball east of Rincon Meadows

AM TIME	1	2	3	4	5	6	TOTAL	PM Time	1	2	3	4	5	6	TOTAL
0:00	7	0	0	0	0	0	7	12:00	73	4	2	1	0	1	81
0:15	3	1	0	0	0	0	4	12:15	68	6	1	3	0	2	80
0:30	3	0	0	0	0	0	3	12:30	55	8	0	5	0	0	68
0:45	7	0	0	2	0	0	9	12:45	61	2	0	1	0	0	64
1:00	1	0	1	0	0	0	2	13:00	62	4	0	4	0	0	70
1:15	1	0	0	0	0	0	1	13:15	61	5	1	3	0	0	70
1:30	4	0	0	0	0	0	4	13:30	76	4	0	3	0	0	83
1:45	3	0	1	0	0	0	4	13:45	73	5	0	4	0	0	82
2:00	2	0	0	0	0	0	2	14:00	66	4	1	3	0	0	74
2:15	3	0	0	0	0	0	3	14:15	83	2	0	5	0	0	90
2:30	6	0	2	0	0	0	8	14:30	88	10	2	1	0	2	103
2:45	5	0	2	0	0	0	7	14:45	83	7	0	2	0	1	93
3:00	12	0	0	0	0	0	12	15:00	102	6	2	3	0	0	113
3:15	11	0	1	0	0	0	12	15:15	105	4	0	2	0	0	111
3:30	10	2	1	0	0	0	13	15:30	152	6	0	1	0	0	159
3:45	15	0	0	0	0	0	15	15:45	109	5	0	4	1	1	120
4:00	25	1	1	1	0	0	28	16:00	85	4	0	2	0	1	92
4:15	31	0	0	0	0	0	31	16:15	104	5	1	2	0	1	113
4:30	48	1	0	0	0	0	49	16:30	122	5	1	0	0	0	128
4:45	80	3	0	0	0	0	83	16:45	100	4	0	4	0	0	108
5:00	83	3	0	0	0	0	86	17:00	123	3	2	2	0	0	130
5:15	121	2	0	0	0	0	123	17:15	105	1	0	5	0	0	111
5:30	136	3	0	3	0	0	142	17:30	102	3	2	1	0	0	108
5:45	140	1	0	2	0	0	143	17:45	105	2	0	0	0	0	107
6:00	160	7	0	2	0	0	169	18:00	92	5	0	1	0	0	98
6:15	159	7	1	1	0	2	170	18:15	84	4	1	1	0	0	90
6:30	222	3	2	3	0	3	233	18:30	81	2	0	1	0	0	84
6:45	239	4	1	0	0	2	246	18:45	75	2	0	1	0	0	78
7:00	235	3	3	3	0	0	244	19:00	89	2	1	5	0	0	97
7:15	217	3	1	0	0	0	221	19:15	66	2	1	2	0	0	71
7:30	229	7	2	2	0	2	242	19:30	42	0	0	1	0	0	43
7:45	230	7	1	1	0	1	240	19:45	44	2	0	2	0	0	48
8:00	199	6	0	1	0	0	206	20:00	27	0	1	1	0	0	29
8:15	229	2	0	3	0	0	234	20:15	38	1	0	2	0	0	41
8:30	160	5	0	1	0	1	167	20:30	31	3	0	0	0	0	34
8:45	160	2	0	2	0	0	164	20:45	18	3	0	0	0	0	21
9:00	126	7	0	2	0	0	135	21:00	28	0	0	2	0	0	30
9:15	107	3	1	4	0	0	115	21:15	22	2	0	1	0	0	25
9:30	104	4	2	3	0	0	113	21:30	22	1	1	1	0	0	25
9:45	82	9	0	1	0	0	92	21:45	23	1	0	1	0	0	25
10:00	76	0	0	2	0	0	78	22:00	13	0	0	4	0	0	17
10:15	76	5	0	1	0	0	82	22:15	12	1	0	2	0	0	15
10:30	92	8	1	2	0	0	103	22:30	12	1	0	2	0	0	15
10:45	81	1	1	2	0	0	85	22:45	10	0	0	0	0	0	10
11:00	69	5	1	0	0	0	75	23:00	8	0	0	0	0	0	8
11:15	58	8	0	4	0	0	70	23:15	11	1	0	0	0	0	12
11:30	55	4	0	1	0	2	62	23:30	6	0	0	0	0	0	6
11:45	74	11	2	5	0	1	93	23:45	7	1	0	0	0	0	8
TOTAL	4,196	138	28	54	0	14	4,430	TOTAL	3,024	143	20	91	1	9	3,288
				AM PEAK HOUR			6:45 AM						AM PEAK HOUR		3:00 PM
				AM PEAK VOLUME			953						AM PEAK VOLUME		503

CLASS 1	PASSENGER VEHICLES	**TOTAL: AM+PM**	7,220	281	48	145	1	23	7,718
CLASS 2	2-AXLE TRUCKS	**% OF TOTAL**	93.5%	3.6%	0.6%	1.9%	0.0%	0.3%	100.0%
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV								
CLASS 6	BUS								

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APPENDIX 3.2:

EXISTING (2019) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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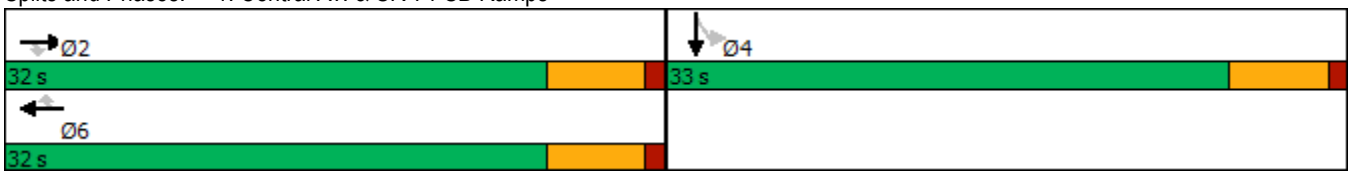
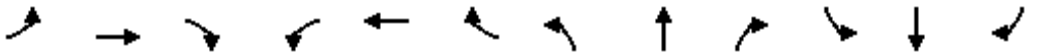
Lane Group	EBT	EBR	WBT	WBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1399	93	685	182	480	0
Future Volume (vph)	1399	93	685	182	480	0
Turn Type	NA	Perm	NA	Perm	Perm	NA
Protected Phases	2		6			4
Permitted Phases		2		6	4	
Detector Phase	2	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	22.8	22.8	15.8	15.8
Total Split (s)	32.0	32.0	32.0	32.0	33.0	33.0
Total Split (%)	49.2%	49.2%	49.2%	49.2%	50.8%	50.8%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max	Max	None	None

Intersection Summary
Cycle Length: 65
Actuated Cycle Length: 59.5
Natural Cycle: 55
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Central Av. & SR-71 SB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱↱				↰	✣	
Traffic Volume (veh/h)	0	1399	93	0	685	182	0	0	0	480	0	316
Future Volume (veh/h)	0	1399	93	0	685	182	0	0	0	480	0	316
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	0	1590	0	0	778	0				368	247	192
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2451		0	2451					576	315	245
Arrive On Green	0.00	0.47	0.00	0.00	0.47	0.00				0.32	0.32	0.32
Sat Flow, veh/h	0	5358	1610	0	5358	2834				1810	991	770
Grp Volume(v), veh/h	0	1590	0	0	778	0				368	0	439
Grp Sat Flow(s),veh/h/ln	0	1729	1610	0	1729	1417				1810	0	1761
Q Serve(g_s), s	0.0	12.9	0.0	0.0	5.2	0.0				9.6	0.0	12.5
Cycle Q Clear(g_c), s	0.0	12.9	0.0	0.0	5.2	0.0				9.6	0.0	12.5
Prop In Lane	0.00		1.00	0.00		1.00				1.00		0.44
Lane Grp Cap(c), veh/h	0	2451		0	2451					576	0	560
V/C Ratio(X)	0.00	0.65		0.00	0.32					0.64	0.00	0.78
Avail Cap(c_a), veh/h	0	2451		0	2451					888	0	864
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	11.1	0.0	0.0	9.1	0.0				16.2	0.0	17.2
Incr Delay (d2), s/veh	0.0	1.3	0.0	0.0	0.3	0.0				1.2	0.0	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.8	0.0	0.0	1.5	0.0				3.4	0.0	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	12.5	0.0	0.0	9.4	0.0				17.4	0.0	19.8
LnGrp LOS	A	B		A	A					B	A	B
Approach Vol, veh/h		1590	A		778	A					807	
Approach Delay, s/veh		12.5			9.4						18.7	
Approach LOS		B			A						B	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	32.0	23.4	32.0
Change Period (Y+Rc), s	5.8	5.8	5.8
Max Green Setting (Gmax), s	26.2	27.2	26.2
Max Q Clear Time (g_c+I1), s	14.9	14.5	7.2
Green Ext Time (p_c), s	8.7	3.1	6.4

Intersection Summary	
HCM 6th Ctrl Delay	13.3
HCM 6th LOS	B

Notes

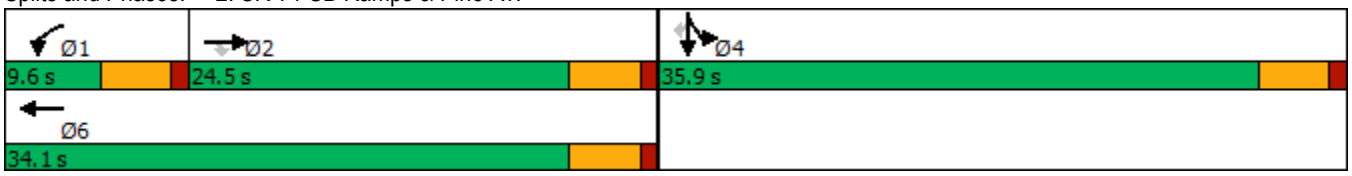
User approved volume balancing among the lanes for turning movement.

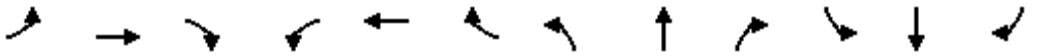
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	439	32	3	57	1	179
Future Volume (vph)	439	32	3	57	1	179
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	21.7	21.7	9.6	21.7	35.7	35.7
Total Split (s)	24.5	24.5	9.6	34.1	35.9	35.9
Total Split (%)	35.0%	35.0%	13.7%	48.7%	51.3%	51.3%
Yellow Time (s)	3.7	3.7	3.6	3.7	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7	4.6	4.7	4.7	4.7
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Max	Max

Intersection Summary
Cycle Length: 70
Actuated Cycle Length: 62.2
Natural Cycle: 70
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: SR-71 SB Ramps & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	439	32	3	57	0	0	0	0	6	1	179
Future Volume (veh/h)	0	439	32	3	57	0	0	0	0	6	1	179
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	510	31	3	66	0				7	1	118
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86				0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	563	477	7	1342	0				769	110	777
Arrive On Green	0.00	0.30	0.30	0.00	0.37	0.00				0.48	0.48	0.48
Sat Flow, veh/h	0	1900	1610	1810	3705	0				1593	228	1610
Grp Volume(v), veh/h	0	510	31	3	66	0				8	0	118
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1805	0				1820	0	1610
Q Serve(g_s), s	0.0	16.7	0.9	0.1	0.8	0.0				0.1	0.0	2.6
Cycle Q Clear(g_c), s	0.0	16.7	0.9	0.1	0.8	0.0				0.1	0.0	2.6
Prop In Lane	0.00		1.00	1.00		0.00				0.87		1.00
Lane Grp Cap(c), veh/h	0	563	477	7	1342	0				879	0	777
V/C Ratio(X)	0.00	0.91	0.06	0.41	0.05	0.00				0.01	0.00	0.15
Avail Cap(c_a), veh/h	0	582	493	140	1643	0				879	0	777
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	21.9	16.3	32.1	13.0	0.0				8.7	0.0	9.3
Incr Delay (d2), s/veh	0.0	17.9	0.1	13.0	0.0	0.0				0.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.3	0.3	0.1	0.3	0.0				0.1	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	39.7	16.4	45.1	13.0	0.0				8.7	0.0	9.7
LnGrp LOS	A	D	B	D	B	A				A	A	A
Approach Vol, veh/h		541			69						126	
Approach Delay, s/veh		38.4			14.4						9.7	
Approach LOS		D			B						A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	4.9	23.9		35.9		28.7
Change Period (Y+Rc), s	4.6	* 4.7		* 4.7		* 4.7
Max Green Setting (Gmax), s	5.0	* 20		* 31		* 29
Max Q Clear Time (g_c+I1), s	2.1	18.7		4.6		2.8
Green Ext Time (p_c), s	0.0	0.5		0.4		0.4

Intersection Summary	
HCM 6th Ctrl Delay	31.2
HCM 6th LOS	C

Notes

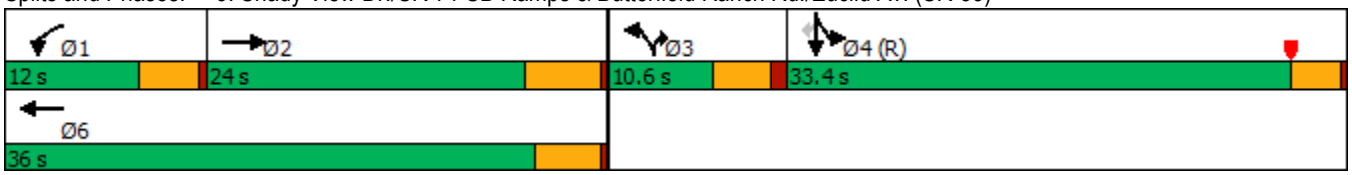
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

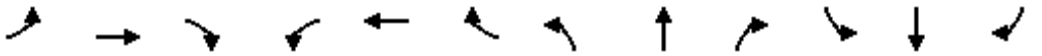
Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	685	195	275	19	288	628	26	40
Future Volume (vph)	685	195	275	19	288	628	26	40
Turn Type	NA	Prot	NA	Prot	Prot	Split	NA	Perm
Protected Phases	2	1	6	3	3	4	4	
Permitted Phases								4
Detector Phase	2	1	6	3	3	4	4	4
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	9.0	26.5	9.5	9.5	32.5	32.5	32.5
Total Split (s)	24.0	12.0	36.0	10.6	10.6	33.4	33.4	33.4
Total Split (%)	30.0%	15.0%	45.0%	13.3%	13.3%	41.8%	41.8%	41.8%
Yellow Time (s)	4.5	3.5	4.0	3.5	3.5	3.0	3.0	3.0
All-Red Time (s)	0.5	0.5	0.5	1.0	1.0	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	4.5	4.5	4.5	3.5	3.5	3.5
Lead/Lag	Lag	Lead		Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	None	None	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 4:SBTL, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 3: Shady View Dr./SR-71 SB Ramps & Butterfield Ranch Rd./Euclid Av. (SR-83)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	685	31	195	275	0	19	0	288	628	26	40
Future Volume (veh/h)	0	685	31	195	275	0	19	0	288	628	26	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	1900	0	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	699	23	199	281	0	19	0	225	660	0	25
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	791	26	181	1342		0	0	0	1889	0	840
Arrive On Green	0.00	0.22	0.22	0.03	0.12	0.00	0.00	0.00	0.00	0.52	0.00	0.52
Sat Flow, veh/h	0	3662	117	1810	3705	0		0		3619	0	1610
Grp Volume(v), veh/h	0	354	368	199	281	0		0.0		660	0	25
Grp Sat Flow(s),veh/h/ln	0	1805	1879	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	15.2	15.2	8.0	5.6	0.0				8.5	0.0	0.6
Cycle Q Clear(g_c), s	0.0	15.2	15.2	8.0	5.6	0.0				8.5	0.0	0.6
Prop In Lane	0.00		0.06	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	400	417	181	1342					1889	0	840
V/C Ratio(X)	0.00	0.88	0.88	1.10	0.21					0.35	0.00	0.03
Avail Cap(c_a), veh/h	0	429	446	181	1421					1889	0	840
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.95	0.95	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	30.1	30.1	38.7	24.5	0.0				11.2	0.0	9.3
Incr Delay (d2), s/veh	0.0	17.3	16.9	94.4	0.1	0.0				0.5	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.0	8.2	8.3	2.3	0.0				3.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	47.5	47.0	133.1	24.6	0.0				11.7	0.0	9.4
LnGrp LOS	A	D	D	F	C					B	A	A
Approach Vol, veh/h		722			480	A					685	
Approach Delay, s/veh		47.2			69.6						11.6	
Approach LOS		D			E						B	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	12.0	22.7		45.3		34.7						
Change Period (Y+Rc), s	4.0	5.0		3.5		* 5						
Max Green Setting (Gmax), s	8.0	19.0		29.9		* 32						
Max Q Clear Time (g_c+I1), s	10.0	17.2		10.5		7.6						
Green Ext Time (p_c), s	0.0	0.6		2.4		1.3						

Intersection Summary			
HCM 6th Ctrl Delay		40.0	
HCM 6th LOS		D	

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

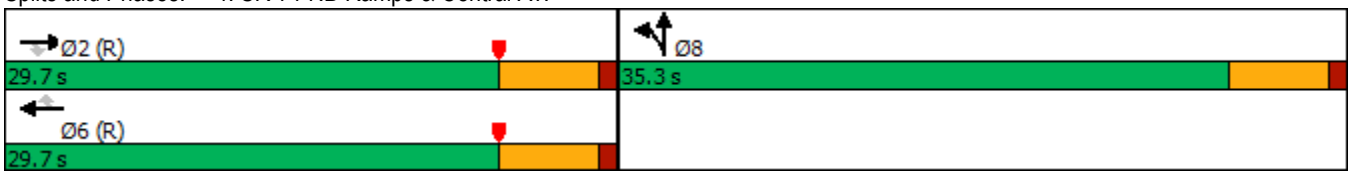
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	1101	778	802	975	65	0
Future Volume (vph)	1101	778	802	975	65	0
Turn Type	NA	Perm	NA	Perm	Split	NA
Protected Phases	2		6		8	8
Permitted Phases		2		6		
Detector Phase	2	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	15.8	15.8	22.8	22.8
Total Split (s)	29.7	29.7	29.7	29.7	35.3	35.3
Total Split (%)	45.7%	45.7%	45.7%	45.7%	54.3%	54.3%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 63.9 (98%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 4: SR-71 NB Ramps & Central Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰	✣				
Traffic Volume (veh/h)	0	1101	778	0	802	975	65	0	390	0	0	0
Future Volume (veh/h)	0	1101	778	0	802	975	65	0	390	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	0	1251	0	0	911	0	74	0	236			
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	0	3271		0	3271		346	0	308			
Arrive On Green	0.00	0.63	0.00	0.00	0.63	0.00	0.19	0.00	0.19			
Sat Flow, veh/h	0	5358	1610	0	5358	1610	1810	0	1610			
Grp Volume(v), veh/h	0	1251	0	0	911	0	74	0	236			
Grp Sat Flow(s),veh/h/ln	0	1729	1610	0	1729	1610	1810	0	1610			
Q Serve(g_s), s	0.0	7.6	0.0	0.0	5.1	0.0	2.2	0.0	9.0			
Cycle Q Clear(g_c), s	0.0	7.6	0.0	0.0	5.1	0.0	2.2	0.0	9.0			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3271		0	3271		346	0	308			
V/C Ratio(X)	0.00	0.38		0.00	0.28		0.21	0.00	0.77			
Avail Cap(c_a), veh/h	0	3271		0	3271		821	0	731			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.64	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	5.8	0.0	0.0	5.4	0.0	22.2	0.0	24.9			
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.2	0.0	0.3	0.0	4.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	1.8	0.0	0.0	1.2	0.0	0.9	0.0	3.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	6.1	0.0	0.0	5.6	0.0	22.5	0.0	28.9			
LnGrp LOS	A	A		A	A		C	A	C			
Approach Vol, veh/h		1251	A		911	A		310				
Approach Delay, s/veh		6.1			5.6			27.4				
Approach LOS		A			A			C				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		46.8				46.8		18.2				
Change Period (Y+Rc), s		5.8				5.8		5.8				
Max Green Setting (Gmax), s		23.9				23.9		29.5				
Max Q Clear Time (g_c+I1), s		9.6				7.1		11.0				
Green Ext Time (p_c), s		6.9				5.4		1.4				

Intersection Summary	
HCM 6th Ctrl Delay	8.6
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	445	0	60	6	0	0
Future Vol, veh/h	445	0	60	6	0	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	517	0	70	7	0	0
Number of Lanes	2	0	1	1	0	0

Approach	EB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left		EB
Conflicting Lanes Left	0	2
Conflicting Approach Right	NB	
Conflicting Lanes Right	2	0
HCM Control Delay	9.3	9.1
HCM LOS	A	A

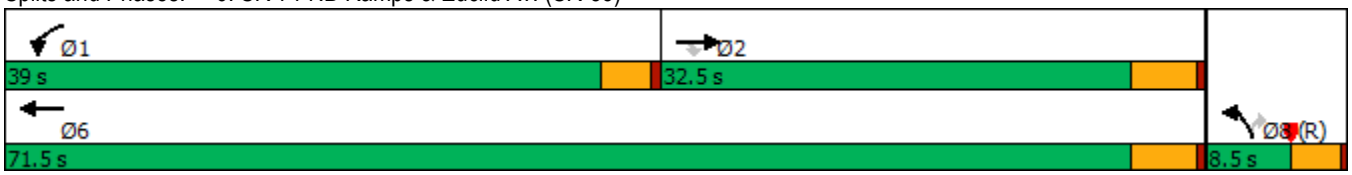
Lane	NBLn1	NBLn2	EBLn1	EBLn2
Vol Left, %	100%	82%	100%	100%
Vol Thru, %	0%	18%	0%	0%
Vol Right, %	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	33	33	223	223
LT Vol	33	27	223	223
Through Vol	0	6	0	0
RT Vol	0	0	0	0
Lane Flow Rate	38	38	259	259
Geometry Grp	7	7	7	7
Degree of Util (X)	0.065	0.064	0.376	0.254
Departure Headway (Hd)	6.098	6.007	5.236	3.533
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	589	598	691	1019
Service Time	3.821	3.729	2.947	1.244
HCM Lane V/C Ratio	0.065	0.064	0.375	0.254
HCM Control Delay	9.2	9.1	11.1	7.4
HCM Lane LOS	A	A	B	A
HCM 95th-tile Q	0.2	0.2	1.8	1

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	657	289	740	917	43	627
Future Volume (vph)	657	289	740	917	43	627
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	32.5	32.5	8.5	9.5	8.5	8.5
Total Split (s)	32.5	32.5	39.0	71.5	8.5	8.5
Total Split (%)	40.6%	40.6%	48.8%	89.4%	10.6%	10.6%
Yellow Time (s)	4.0	4.0	3.0	4.0	3.0	3.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	3.5	4.5	3.5	3.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 9.5 (12%), Referenced to phase 4: and 8:NBL, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 6: SR-71 NB Ramps & Euclid Av. (SR-83)



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	657	289	740	917	43	627
Future Volume (veh/h)	657	289	740	917	43	627
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	699	0	787	976	46	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	898		803	2658	575	
Arrive On Green	0.08	0.00	0.44	0.74	0.16	0.00
Sat Flow, veh/h	3705	1610	1810	3705	3510	1610
Grp Volume(v), veh/h	699	0	787	976	46	0
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805	1755	1610
Q Serve(g_s), s	15.2	0.0	34.3	7.8	0.9	0.0
Cycle Q Clear(g_c), s	15.2	0.0	34.3	7.8	0.9	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	898		803	2658	575	
V/C Ratio(X)	0.78		0.98	0.37	0.08	
Avail Cap(c_a), veh/h	1264		803	3023	575	
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.45	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	34.6	0.0	21.9	3.8	28.3	0.0
Incr Delay (d2), s/veh	0.8	0.0	26.8	0.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	0.0	17.6	1.3	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	35.3	0.0	48.7	3.9	28.6	0.0
LnGrp LOS	D		D	A	C	
Approach Vol, veh/h	699	A		1763	46	A
Approach Delay, s/veh	35.3			23.9	28.6	
Approach LOS	D			C	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	39.0	24.4				63.4	16.6
Change Period (Y+Rc), s	3.5	4.5				4.5	3.5
Max Green Setting (Gmax), s	35.5	28.0				67.0	5.0
Max Q Clear Time (g_c+I1), s	36.3	17.2				9.8	2.9
Green Ext Time (p_c), s	0.0	2.7				7.2	0.0

Intersection Summary		
HCM 6th Ctrl Delay		27.2
HCM 6th LOS		C

Notes

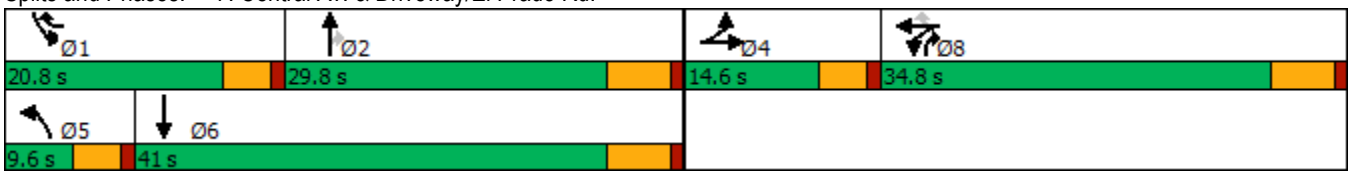
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	2	6	755	4	512	2	811	505	251	695
Future Volume (vph)	2	6	755	4	512	2	811	505	251	695
Turn Type	Split	NA	Split	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	4	4	8	8	1	5	2	8	1	6
Permitted Phases					8			2		
Detector Phase	4	4	8	8	1	5	2	8	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	34.8	34.8	9.6	9.6	27.8	34.8	9.6	24.8
Total Split (s)	14.6	14.6	34.8	34.8	20.8	9.6	29.8	34.8	20.8	41.0
Total Split (%)	14.6%	14.6%	34.8%	34.8%	20.8%	9.6%	29.8%	34.8%	20.8%	41.0%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	5.8	4.6	4.6	5.8	5.8	4.6	5.8
Lead/Lag					Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	None	Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 85.4
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Central Av. & Driveway/El Prado Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	6	1	755	4	512	2	811	505	251	695	11
Future Volume (veh/h)	2	6	1	755	4	512	2	811	505	251	695	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	2	6	0	773	0	305	2	828	341	256	709	8
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	33	36	0	876	0	685	4	973	837	289	2303	26
Arrive On Green	0.02	0.02	0.00	0.27	0.00	0.27	0.00	0.28	0.28	0.18	0.46	0.46
Sat Flow, veh/h	1619	1800	0	3238	0	1525	1619	3420	1490	1619	5008	56
Grp Volume(v), veh/h	2	6	0	773	0	305	2	828	341	256	464	253
Grp Sat Flow(s),veh/h/ln	1619	1800	0	1619	0	1525	1619	1710	1490	1619	1638	1788
Q Serve(g_s), s	0.1	0.3	0.0	19.3	0.0	11.6	0.1	19.3	11.1	13.0	7.5	7.5
Cycle Q Clear(g_c), s	0.1	0.3	0.0	19.3	0.0	11.6	0.1	19.3	11.1	13.0	7.5	7.5
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	33	36	0	876	0	685	4	973	837	289	1507	823
V/C Ratio(X)	0.06	0.16	0.00	0.88	0.00	0.45	0.46	0.85	0.41	0.89	0.31	0.31
Avail Cap(c_a), veh/h	192	213	0	1113	0	796	96	973	837	311	1507	823
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.5	40.6	0.0	29.5	0.0	16.0	42.0	28.5	10.8	33.8	14.3	14.3
Incr Delay (d2), s/veh	0.3	0.8	0.0	6.1	0.0	0.2	24.9	9.3	1.5	22.9	0.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.0	7.5	0.0	3.5	0.1	8.5	6.2	6.6	2.6	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.8	41.4	0.0	35.5	0.0	16.2	66.9	37.8	12.3	56.7	14.9	15.3
LnGrp LOS	D	D	A	D	A	B	E	D	B	E	B	B
Approach Vol, veh/h		8			1078			1171			973	
Approach Delay, s/veh		41.3			30.1			30.4			26.0	
Approach LOS		D			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.6	29.8		6.3	4.8	44.6		28.6				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		5.8				
Max Green Setting (Gmax), s	16.2	24.0		10.0	5.0	35.2		29.0				
Max Q Clear Time (g_c+I1), s	15.0	21.3		2.3	2.1	9.5		21.3				
Green Ext Time (p_c), s	0.1	1.6		0.0	0.0	4.3		1.5				

Intersection Summary		
HCM 6th Ctrl Delay		29.0
HCM 6th LOS		C

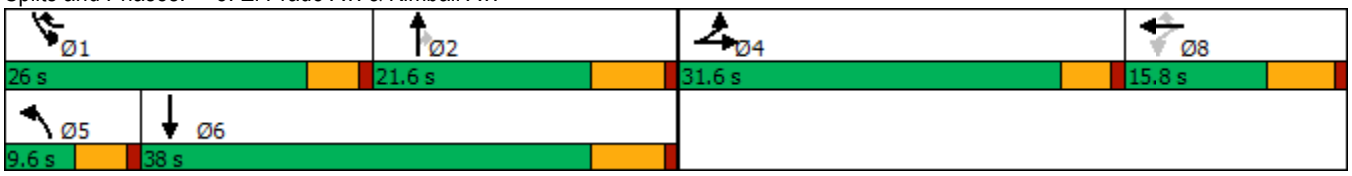
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	22	4	31	16	759	6	274	30	386	235
Future Volume (vph)	22	4	31	16	759	6	274	30	386	235
Turn Type	Split	NA	Perm	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	4	4		8	1	5	2		1	6
Permitted Phases			8		8			2		
Detector Phase	4	4	8	8	1	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	15.8	15.8	9.6	9.6	16.2	16.2	9.6	24.2
Total Split (s)	31.6	31.6	15.8	15.8	26.0	9.6	21.6	21.6	26.0	38.0
Total Split (%)	33.3%	33.3%	16.6%	16.6%	27.4%	10.1%	22.7%	22.7%	27.4%	40.0%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		5.8	4.6	4.6	6.2	6.2	4.6	6.2
Lead/Lag					Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary
Cycle Length: 95
Actuated Cycle Length: 66.3
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: El Prado Av. & Kimball Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	4	3	31	16	759	6	274	30	386	235	38
Future Volume (veh/h)	22	4	3	31	16	759	6	274	30	386	235	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	23	4	2	33	17	402	6	288	32	406	247	37
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	100	70	35	164	84	635	13	395	335	444	1447	214
Arrive On Green	0.06	0.06	0.06	0.14	0.14	0.14	0.01	0.22	0.22	0.27	0.49	0.49
Sat Flow, veh/h	1619	1132	566	1150	592	1525	1619	1800	1525	1619	2980	440
Grp Volume(v), veh/h	23	0	6	50	0	402	6	288	32	406	140	144
Grp Sat Flow(s),veh/h/ln	1619	0	1698	1742	0	1525	1619	1800	1525	1619	1710	1710
Q Serve(g_s), s	0.9	0.0	0.2	1.8	0.0	10.0	0.3	10.4	1.2	17.0	3.2	3.3
Cycle Q Clear(g_c), s	0.9	0.0	0.2	1.8	0.0	10.0	0.3	10.4	1.2	17.0	3.2	3.3
Prop In Lane	1.00		0.33	0.66		1.00	1.00		1.00	1.00		0.26
Lane Grp Cap(c), veh/h	100	0	105	248	0	635	13	395	335	444	831	830
V/C Ratio(X)	0.23	0.00	0.06	0.20	0.00	0.63	0.47	0.73	0.10	0.92	0.17	0.17
Avail Cap(c_a), veh/h	623	0	654	248	0	635	115	395	335	494	831	830
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.3	0.0	31.0	26.5	0.0	16.2	34.6	25.4	21.8	24.7	10.1	10.1
Incr Delay (d2), s/veh	1.2	0.0	0.2	0.4	0.0	2.0	9.7	11.2	0.6	19.5	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.1	0.7	0.0	4.6	0.1	5.1	0.4	8.0	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.5	0.0	31.2	26.9	0.0	18.3	44.4	36.6	22.4	44.2	10.5	10.6
LnGrp LOS	C	A	C	C	A	B	D	D	C	D	B	B
Approach Vol, veh/h		29			452			326			690	
Approach Delay, s/veh		32.2			19.2			35.4			30.3	
Approach LOS		C			B			D			C	

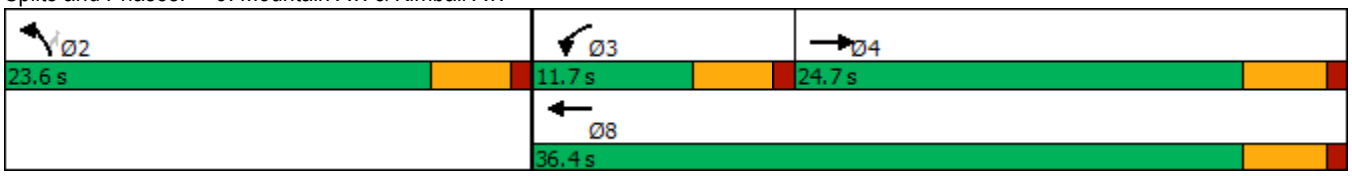
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.8	21.6		8.9	5.2	40.3		15.8				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		5.8				
Max Green Setting (Gmax), s	21.4	15.4		27.0	5.0	31.8		10.0				
Max Q Clear Time (g_c+I1), s	19.0	12.4		2.9	2.3	5.3		12.0				
Green Ext Time (p_c), s	0.2	0.4		0.1	0.0	1.4		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		28.1	
HCM 6th LOS		C	

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	320	66	716	76	21
Future Volume (vph)	320	66	716	76	21
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	4	3	8	2	
Permitted Phases					2
Detector Phase	4	3	8	2	2
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	24.7	9.6	14.7	23.6	23.6
Total Split (s)	24.7	11.7	36.4	23.6	23.6
Total Split (%)	41.2%	19.5%	60.7%	39.3%	39.3%
Yellow Time (s)	3.7	3.6	3.7	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.6	4.7	4.6	4.6
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	Max	None	Max	None	None

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 50
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 9: Mountain Av. & Kimball Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	320	83	66	716	76	21
Future Volume (veh/h)	320	83	66	716	76	21
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1800	1800	1700	1800	1700	1800
Adj Flow Rate, veh/h	337	76	69	754	80	20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1377	306	101	2240	247	233
Arrive On Green	0.50	0.50	0.06	0.66	0.15	0.15
Sat Flow, veh/h	2858	615	1619	3510	1619	1525
Grp Volume(v), veh/h	206	207	69	754	80	20
Grp Sat Flow(s),veh/h/ln	1710	1674	1619	1710	1619	1525
Q Serve(g_s), s	3.3	3.4	2.0	4.7	2.1	0.5
Cycle Q Clear(g_c), s	3.3	3.4	2.0	4.7	2.1	0.5
Prop In Lane		0.37	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	851	833	101	2240	247	233
V/C Ratio(X)	0.24	0.25	0.68	0.34	0.32	0.09
Avail Cap(c_a), veh/h	851	833	238	2240	636	599
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.9	7.0	22.2	3.7	18.3	17.6
Incr Delay (d2), s/veh	0.7	0.7	3.0	0.4	0.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.9	0.7	0.6	0.7	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.6	7.7	25.2	4.1	19.0	17.8
LnGrp LOS	A	A	C	A	B	B
Approach Vol, veh/h	413			823	100	
Approach Delay, s/veh	7.7			5.9	18.8	
Approach LOS	A			A	B	

Timer - Assigned Phs	2	3	4	8
Phs Duration (G+Y+Rc), s	12.0	7.6	28.8	36.4
Change Period (Y+Rc), s	4.6	4.6	* 4.7	* 4.7
Max Green Setting (Gmax), s	19.0	7.1	* 20	* 32
Max Q Clear Time (g_c+I1), s	4.1	4.0	5.4	6.7
Green Ext Time (p_c), s	0.2	0.0	1.9	5.0

Intersection Summary	
HCM 6th Ctrl Delay	7.4
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	8.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	53	176	11	5	37	5
Future Vol, veh/h	53	176	11	5	37	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	65	215	13	6	45	6

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	112	16	0	0	19	0
Stage 1	16	-	-	-	-	-
Stage 2	96	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	890	1069	-	-	1611	-
Stage 1	1012	-	-	-	-	-
Stage 2	933	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	865	1069	-	-	1611	-
Mov Cap-2 Maneuver	819	-	-	-	-	-
Stage 1	1012	-	-	-	-	-
Stage 2	907	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	6.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	819	1069	1611	-
HCM Lane V/C Ratio	-	-	0.079	0.201	0.028	-
HCM Control Delay (s)	-	-	9.8	9.2	7.3	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0.7	0.1	-

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	51	259	4	12	112
Future Vol, veh/h	7	51	259	4	12	112
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	55	282	4	13	122

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	432	284	0	0	286	0
Stage 1	284	-	-	-	-	-
Stage 2	148	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	584	760	-	-	1288	-
Stage 1	769	-	-	-	-	-
Stage 2	884	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	578	760	-	-	1288	-
Mov Cap-2 Maneuver	578	-	-	-	-	-
Stage 1	769	-	-	-	-	-
Stage 2	874	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.4	0	0.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	732	1288	-
HCM Lane V/C Ratio	-	-	0.086	0.01	-
HCM Control Delay (s)	-	-	10.4	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	320	229	0
Future Vol, veh/h	0	0	0	320	229	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	352	252	0
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	0	9.4	10.3
HCM LOS	-	A	B

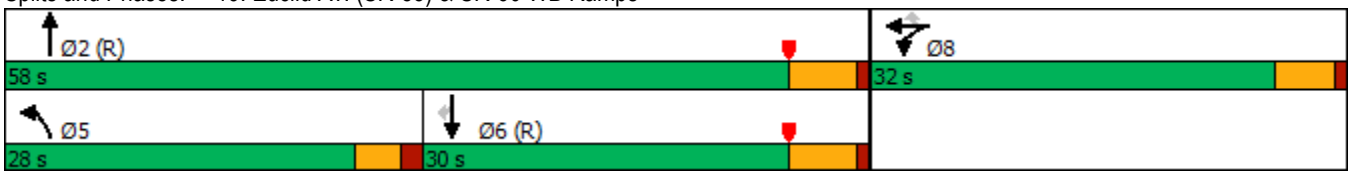
Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	100%
Vol Thru, %	100%	0%	0%
Vol Right, %	0%	100%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	0	320	229
LT Vol	0	0	229
Through Vol	0	0	0
RT Vol	0	320	0
Lane Flow Rate	0	352	252
Geometry Grp	1	1	1
Degree of Util (X)	0	0.385	0.337
Departure Headway (Hd)	4.906	3.945	4.819
Convergence, Y/N	Yes	Yes	Yes
Cap	0	914	745
Service Time	2.941	1.959	2.858
HCM Lane V/C Ratio	0	0.385	0.338
HCM Control Delay	7.9	9.4	10.3
HCM Lane LOS	N	A	B
HCM 95th-tile Q	0	1.8	1.5

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	591	6	408	333	902	947	470
Future Volume (vph)	591	6	408	333	902	947	470
Turn Type	Split	NA	Perm	Prot	NA	NA	Perm
Protected Phases	8	8		5	2	6	
Permitted Phases			8				6
Detector Phase	8	8	8	5	2	6	6
Switch Phase							
Minimum Initial (s)	6.0	6.0	6.0	5.0	10.0	10.0	10.0
Minimum Split (s)	11.0	11.0	11.0	9.5	22.5	22.5	22.5
Total Split (s)	32.0	32.0	32.0	28.0	58.0	30.0	30.0
Total Split (%)	35.6%	35.6%	35.6%	31.1%	64.4%	33.3%	33.3%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.5	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.5	5.5	5.5	5.5
Lead/Lag				Lead		Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 63 (70%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 19: Euclid Av. (SR-83) & SR-60 WB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	591	6	408	333	902	0	0	947	470
Future Volume (veh/h)	0	0	0	591	6	408	333	902	0	0	947	470
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				698	0	145	354	960	0	0	1007	272
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				803	0	357	382	2388	0	0	1446	645
Arrive On Green				0.22	0.00	0.22	0.42	1.00	0.00	0.00	0.40	0.40
Sat Flow, veh/h				3619	0	1610	1810	3705	0	0	3705	1610
Grp Volume(v), veh/h				698	0	145	354	960	0	0	1007	272
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1810	1805	0	0	1805	1610
Q Serve(g_s), s				16.7	0.0	6.9	16.7	0.0	0.0	0.0	20.9	11.0
Cycle Q Clear(g_c), s				16.7	0.0	6.9	16.7	0.0	0.0	0.0	20.9	11.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				803	0	357	382	2388	0	0	1446	645
V/C Ratio(X)				0.87	0.00	0.41	0.93	0.40	0.00	0.00	0.70	0.42
Avail Cap(c_a), veh/h				1086	0	483	472	2388	0	0	1446	645
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.58	0.58	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				33.8	0.0	29.9	25.4	0.0	0.0	0.0	22.4	19.5
Incr Delay (d2), s/veh				4.7	0.0	0.3	13.4	0.3	0.0	0.0	2.8	2.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.4	0.0	2.6	6.4	0.1	0.0	0.0	8.7	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				38.5	0.0	30.2	38.7	0.3	0.0	0.0	25.2	21.5
LnGrp LOS				D	A	C	D	A	A	A	C	C
Approach Vol, veh/h					843			1314			1279	
Approach Delay, s/veh					37.1			10.7			24.4	
Approach LOS					D			B			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	65.0		23.5	41.6		25.0						
Change Period (Y+Rc), s	5.5		4.5	5.5		5.0						
Max Green Setting (Gmax), s	52.5		23.5	24.5		27.0						
Max Q Clear Time (g_c+I1), s	2.0		18.7	22.9		18.7						
Green Ext Time (p_c), s	12.0		0.3	1.3		1.2						

Intersection Summary		
HCM 6th Ctrl Delay	22.3	
HCM 6th LOS	C	

Notes

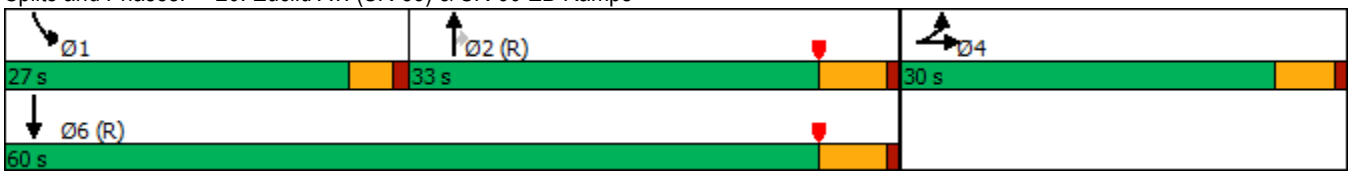
User approved volume balancing among the lanes for turning movement.

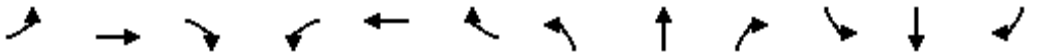
Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	404	2	832	656	363	1175
Future Volume (vph)	404	2	832	656	363	1175
Turn Type	Split	NA	NA	Perm	Prot	NA
Protected Phases	4	4	2		1	6
Permitted Phases				2		
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	6.0	6.0	10.0	10.0	5.0	10.0
Minimum Split (s)	11.0	11.0	22.5	22.5	9.0	22.5
Total Split (s)	30.0	30.0	33.0	33.0	27.0	60.0
Total Split (%)	33.3%	33.3%	36.7%	36.7%	30.0%	66.7%
Yellow Time (s)	4.0	4.0	4.5	4.5	3.0	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.5	5.5	4.0	5.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Min	C-Min	None	C-Min

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 20: Euclid Av. (SR-83) & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	404	2	288	0	0	0	0	832	656	363	1175	0
Future Volume (veh/h)	404	2	288	0	0	0	0	832	656	363	1175	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	338	124	248				0	876	492	382	1237	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	441	138	276				0	1323	574	414	2308	0
Arrive On Green	0.24	0.24	0.24				0.00	0.37	0.37	0.30	0.85	0.00
Sat Flow, veh/h	1810	565	1131				0	3705	1568	1810	3705	0
Grp Volume(v), veh/h	338	0	372				0	876	492	382	1237	0
Grp Sat Flow(s),veh/h/ln	1810	0	1696				0	1805	1568	1810	1805	0
Q Serve(g_s), s	15.6	0.0	19.1				0.0	18.3	26.1	18.4	8.5	0.0
Cycle Q Clear(g_c), s	15.6	0.0	19.1				0.0	18.3	26.1	18.4	8.5	0.0
Prop In Lane	1.00		0.67				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	441	0	414				0	1323	574	414	2308	0
V/C Ratio(X)	0.77	0.00	0.90				0.00	0.66	0.86	0.92	0.54	0.00
Avail Cap(c_a), veh/h	503	0	471				0	1323	574	462	2308	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.79	0.79	0.47	0.47	0.00
Uniform Delay (d), s/veh	31.6	0.0	32.9				0.0	23.9	26.3	30.6	3.1	0.0
Incr Delay (d2), s/veh	5.1	0.0	17.2				0.0	2.1	12.4	12.4	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	0.0	9.3				0.0	7.6	11.0	8.3	1.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.7	0.0	50.1				0.0	25.9	38.7	42.9	3.5	0.0
LnGrp LOS	D	A	D				A	C	D	D	A	A
Approach Vol, veh/h		710						1368			1619	
Approach Delay, s/veh		43.7						30.5			12.8	
Approach LOS		D						C			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	24.6	38.5		27.0		63.0
Change Period (Y+Rc), s	4.0	5.5		5.0		5.5
Max Green Setting (Gmax), s	23.0	27.5		25.0		54.5
Max Q Clear Time (g_c+I1), s	20.4	28.1		21.1		10.5
Green Ext Time (p_c), s	0.2	0.0		0.8		16.9

Intersection Summary	
HCM 6th Ctrl Delay	25.3
HCM 6th LOS	C

Notes

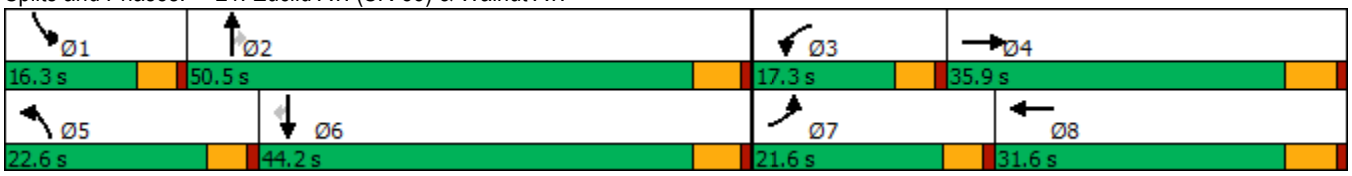
User approved volume balancing among the lanes for turning movement.

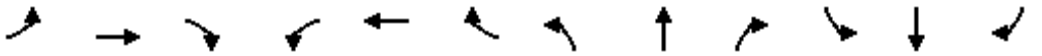
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	113	289	71	307	125	1122	45	150	1128	59
Future Volume (vph)	113	289	71	307	125	1122	45	150	1128	59
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.8	9.6	29.8	9.6	27.4	27.4	9.6	29.4	29.4
Total Split (s)	21.6	35.9	17.3	31.6	22.6	50.5	50.5	16.3	44.2	44.2
Total Split (%)	18.0%	29.9%	14.4%	26.3%	18.8%	42.1%	42.1%	13.6%	36.8%	36.8%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 107.4
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 21: Euclid Av. (SR-83) & Walnut Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	289	109	71	307	204	125	1122	45	150	1128	59
Future Volume (veh/h)	113	289	109	71	307	204	125	1122	45	150	1128	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1600	1800	1800
Adj Flow Rate, veh/h	119	304	79	75	323	175	132	1181	29	158	1187	41
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	145	589	151	94	403	213	159	2204	684	214	2076	644
Arrive On Green	0.09	0.22	0.22	0.06	0.19	0.19	0.10	0.45	0.45	0.07	0.42	0.42
Sat Flow, veh/h	1619	2696	689	1619	2157	1143	1619	4914	1524	2956	4914	1524
Grp Volume(v), veh/h	119	191	192	75	255	243	132	1181	29	158	1187	41
Grp Sat Flow(s),veh/h/ln	1619	1710	1676	1619	1710	1590	1619	1638	1524	1478	1638	1524
Q Serve(g_s), s	7.3	9.9	10.2	4.6	14.3	14.8	8.0	17.5	1.1	5.3	18.5	1.6
Cycle Q Clear(g_c), s	7.3	9.9	10.2	4.6	14.3	14.8	8.0	17.5	1.1	5.3	18.5	1.6
Prop In Lane	1.00		0.41	1.00		0.72	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	145	373	366	94	319	297	159	2204	684	214	2076	644
V/C Ratio(X)	0.82	0.51	0.52	0.80	0.80	0.82	0.83	0.54	0.04	0.74	0.57	0.06
Avail Cap(c_a), veh/h	274	512	502	204	439	408	290	2204	684	344	2076	644
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.0	34.6	34.7	46.8	39.1	39.3	44.5	20.1	15.6	45.7	22.1	17.2
Incr Delay (d2), s/veh	4.3	1.1	1.2	5.8	7.0	9.1	4.2	0.9	0.1	1.9	1.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	4.0	4.1	1.9	6.3	6.3	3.3	6.4	0.4	1.9	6.9	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.3	35.7	35.9	52.6	46.1	48.4	48.7	21.1	15.7	47.6	23.3	17.4
LnGrp LOS	D	D	D	D	D	D	D	C	B	D	C	B
Approach Vol, veh/h		502			573			1342			1386	
Approach Delay, s/veh		39.0			47.9			23.7			25.9	
Approach LOS		D			D			C			C	

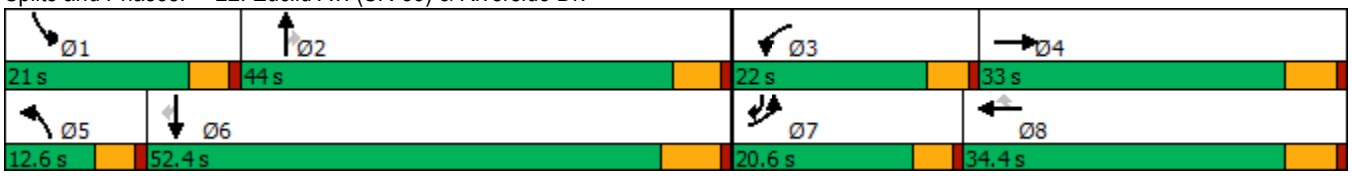
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	50.5	10.4	27.8	14.5	47.9	13.6	24.6
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	11.7	45.1	12.7	30.1	18.0	38.8	17.0	25.8
Max Q Clear Time (g_c+I1), s	7.3	19.5	6.6	12.2	10.0	20.5	9.3	16.8
Green Ext Time (p_c), s	0.1	9.0	0.0	1.8	0.1	7.9	0.1	1.8

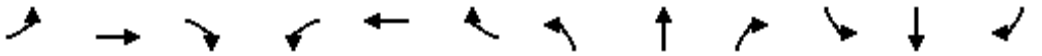
Intersection Summary	
HCM 6th Ctrl Delay	30.1
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	153	311	187	488	115	66	909	155	174	940	152
Future Volume (vph)	153	311	187	488	115	66	909	155	174	940	152
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4	3	8		5	2		1	6	7
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	25.8	9.6	31.8	31.8	9.6	30.4	30.4	9.6	34.5	9.6
Total Split (s)	20.6	33.0	22.0	34.4	34.4	12.6	44.0	44.0	21.0	52.4	20.6
Total Split (%)	17.2%	27.5%	18.3%	28.7%	28.7%	10.5%	36.7%	36.7%	17.5%	43.7%	17.2%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 117.4
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Euclid Av. (SR-83) & Riverside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	311	49	187	488	115	66	909	155	174	940	152
Future Volume (veh/h)	153	311	49	187	488	115	66	909	155	174	940	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	161	327	36	197	514	92	69	957	123	183	989	101
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	186	352	39	221	832	371	86	1129	503	208	1386	793
Arrive On Green	0.11	0.22	0.22	0.14	0.24	0.24	0.05	0.33	0.33	0.13	0.41	0.41
Sat Flow, veh/h	1619	1593	175	1619	3420	1525	1619	3420	1525	1619	3420	1524
Grp Volume(v), veh/h	161	0	363	197	514	92	69	957	123	183	989	101
Grp Sat Flow(s),veh/h/ln	1619	0	1768	1619	1710	1525	1619	1710	1525	1619	1710	1524
Q Serve(g_s), s	11.4	0.0	23.5	14.0	15.7	5.7	4.9	30.4	6.9	13.0	28.3	4.0
Cycle Q Clear(g_c), s	11.4	0.0	23.5	14.0	15.7	5.7	4.9	30.4	6.9	13.0	28.3	4.0
Prop In Lane	1.00		0.10	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	186	0	391	221	832	371	86	1129	503	208	1386	793
V/C Ratio(X)	0.87	0.00	0.93	0.89	0.62	0.25	0.80	0.85	0.24	0.88	0.71	0.13
Avail Cap(c_a), veh/h	222	0	411	241	836	373	111	1129	503	227	1386	793
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.9	0.0	44.6	49.6	39.4	35.6	54.8	36.4	28.5	50.1	29.1	14.4
Incr Delay (d2), s/veh	22.8	0.0	26.6	27.9	1.4	0.3	21.3	8.0	1.2	27.5	3.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	0.0	12.8	7.2	6.5	2.1	2.4	13.0	2.6	6.7	11.7	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.7	0.0	71.3	77.5	40.8	36.0	76.0	44.4	29.7	77.6	32.3	14.8
LnGrp LOS	E	A	E	E	D	D	E	D	C	E	C	B
Approach Vol, veh/h		524			803			1149			1273	
Approach Delay, s/veh		72.0			49.2			44.7			37.4	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.6	45.1	20.6	31.7	10.8	53.9	18.0	34.2
Change Period (Y+Rc), s	4.6	* 6.5	4.6	5.8	4.6	6.5	4.6	5.8
Max Green Setting (Gmax), s	16.4	* 39	17.4	27.2	8.0	45.9	16.0	28.6
Max Q Clear Time (g_c+I1), s	15.0	32.4	16.0	25.5	6.9	30.3	13.4	17.7
Green Ext Time (p_c), s	0.0	3.1	0.0	0.3	0.0	6.2	0.0	2.5

Intersection Summary	
HCM 6th Ctrl Delay	47.0
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

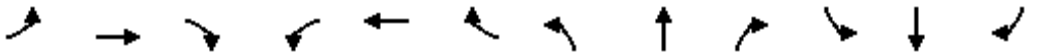
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	104	165	37	71	151	46	971	129	56	1007	92
Future Volume (vph)	104	165	37	71	151	46	971	129	56	1007	92
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	28.8	28.8	28.8	33.8	33.8	9.6	24.2	24.2	9.6	31.5	31.5
Total Split (s)	44.0	44.0	44.0	44.0	44.0	15.0	60.0	60.0	16.0	61.0	61.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	12.5%	50.0%	50.0%	13.3%	50.8%	50.8%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	3.6	4.2	4.2	3.6	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8		5.8	4.6	5.2	5.2	4.6	6.5	6.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 102.3
Natural Cycle: 75
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: Euclid Av. (SR-83) & Chino Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	165	37	71	151	51	46	971	129	56	1007	92
Future Volume (veh/h)	104	165	37	71	151	51	46	971	129	56	1007	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	111	176	23	76	161	42	49	1033	113	60	1071	67
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	224	438	371	113	205	48	60	1858	829	75	1888	825
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.04	0.54	0.54	0.05	0.55	0.55
Sat Flow, veh/h	1131	1800	1524	279	842	199	1619	3420	1525	1619	3420	1494
Grp Volume(v), veh/h	111	176	23	279	0	0	49	1033	113	60	1071	67
Grp Sat Flow(s),veh/h/ln	1131	1800	1524	1320	0	0	1619	1710	1525	1619	1710	1494
Q Serve(g_s), s	0.0	8.3	1.2	12.9	0.0	0.0	3.0	19.9	3.7	3.7	20.6	2.1
Cycle Q Clear(g_c), s	19.4	8.3	1.2	21.2	0.0	0.0	3.0	19.9	3.7	3.7	20.6	2.1
Prop In Lane	1.00		1.00	0.27		0.15	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	224	438	371	366	0	0	60	1858	829	75	1888	825
V/C Ratio(X)	0.50	0.40	0.06	0.76	0.00	0.00	0.81	0.56	0.14	0.80	0.57	0.08
Avail Cap(c_a), veh/h	377	682	577	576	0	0	167	1858	829	183	1888	825
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.2	32.0	29.3	37.7	0.0	0.0	48.2	15.1	11.4	47.7	14.7	10.6
Incr Delay (d2), s/veh	1.7	0.6	0.1	3.3	0.0	0.0	9.2	1.2	0.3	7.3	1.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	3.5	0.4	6.7	0.0	0.0	1.3	6.8	1.2	1.6	7.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.9	32.6	29.4	40.9	0.0	0.0	57.4	16.3	11.7	54.9	16.0	10.8
LnGrp LOS	D	C	C	D	A	A	E	B	B	D	B	B
Approach Vol, veh/h		310			279			1195			1198	
Approach Delay, s/veh		34.3			40.9			17.5			17.6	
Approach LOS		C			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.3	61.3		30.3	8.4	62.2		30.3				
Change Period (Y+Rc), s	4.6	* 6.5		5.8	4.6	6.5		5.8				
Max Green Setting (Gmax), s	11.4	* 55		38.2	10.4	54.5		38.2				
Max Q Clear Time (g_c+I1), s	5.7	21.9		21.4	5.0	22.6		23.2				
Green Ext Time (p_c), s	0.0	7.8		1.2	0.0	8.0		1.3				

Intersection Summary		
HCM 6th Ctrl Delay		21.5
HCM 6th LOS		C

Notes

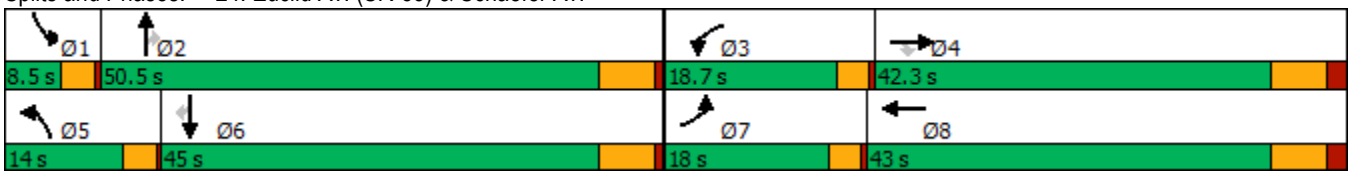
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

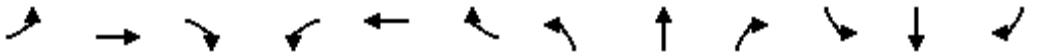
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	153	73	58	140	177	102	934	35	29	914	122
Future Volume (vph)	153	73	58	140	177	102	934	35	29	914	122
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.5	42.0	42.0	13.5	43.0	8.5	33.0	33.0	8.5	28.0	28.0
Total Split (s)	18.0	42.3	42.3	18.7	43.0	14.0	50.5	50.5	8.5	45.0	45.0
Total Split (%)	15.0%	35.3%	35.3%	15.6%	35.8%	11.7%	42.1%	42.1%	7.1%	37.5%	37.5%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	7.0	7.0	3.5	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 95.1
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Euclid Av. (SR-83) & Schaefer Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	73	58	140	177	11	102	934	35	29	914	122
Future Volume (veh/h)	153	73	58	140	177	11	102	934	35	29	914	122
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	165	78	43	151	190	10	110	1004	28	31	983	97
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	200	268	227	210	263	14	137	1430	638	52	1250	556
Arrive On Green	0.12	0.15	0.15	0.13	0.16	0.16	0.08	0.42	0.42	0.03	0.37	0.37
Sat Flow, veh/h	1619	1800	1525	1619	1694	89	1619	3420	1525	1619	3420	1521
Grp Volume(v), veh/h	165	78	43	151	0	200	110	1004	28	31	983	97
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1619	0	1783	1619	1710	1525	1619	1710	1521
Q Serve(g_s), s	7.3	2.8	1.8	6.6	0.0	7.9	4.9	17.8	0.8	1.4	18.9	3.2
Cycle Q Clear(g_c), s	7.3	2.8	1.8	6.6	0.0	7.9	4.9	17.8	0.8	1.4	18.9	3.2
Prop In Lane	1.00		1.00	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	200	268	227	210	0	277	137	1430	638	52	1250	556
V/C Ratio(X)	0.83	0.29	0.19	0.72	0.00	0.72	0.80	0.70	0.04	0.60	0.79	0.17
Avail Cap(c_a), veh/h	319	863	731	334	0	872	231	2066	922	110	1811	805
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.5	27.9	27.4	30.8	0.0	29.6	33.1	17.7	12.7	35.2	20.8	15.8
Incr Delay (d2), s/veh	4.5	0.4	0.3	1.7	0.0	2.7	4.2	0.6	0.0	4.1	1.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	1.2	0.6	2.5	0.0	3.3	1.9	5.7	0.2	0.6	6.4	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.0	28.3	27.7	32.5	0.0	32.3	37.3	18.3	12.7	39.3	22.3	16.0
LnGrp LOS	D	C	C	C	A	C	D	B	B	D	C	B
Approach Vol, veh/h		286			351			1142			1111	
Approach Delay, s/veh		32.7			32.4			20.0			22.2	
Approach LOS		C			C			B			C	

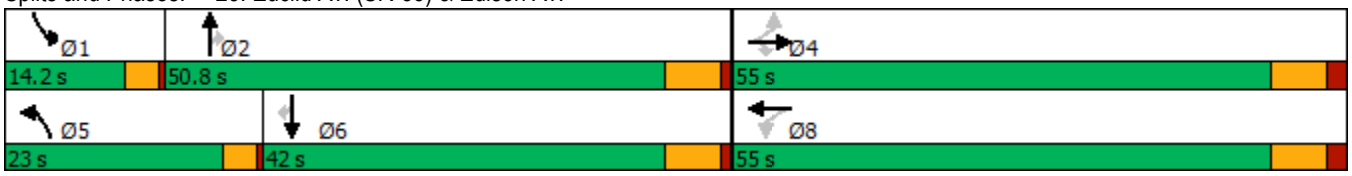
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.8	36.8	13.0	18.0	9.7	32.9	12.6	18.4
Change Period (Y+Rc), s	3.5	6.0	3.5	7.0	3.5	6.0	3.5	7.0
Max Green Setting (Gmax), s	5.0	44.5	15.2	35.3	10.5	39.0	14.5	36.0
Max Q Clear Time (g_c+I1), s	3.4	19.8	8.6	4.8	6.9	20.9	9.3	9.9
Green Ext Time (p_c), s	0.0	6.7	0.1	0.4	0.0	6.1	0.1	0.8

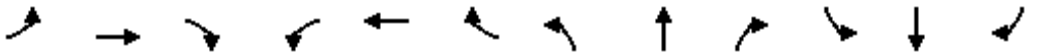
Intersection Summary	
HCM 6th Ctrl Delay	23.6
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	156	237	97	33	416	208	869	37	63	799	167
Future Volume (vph)	156	237	97	33	416	208	869	37	63	799	167
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	46.0	46.0	46.0	49.0	49.0	8.5	29.0	29.0	8.5	40.0	40.0
Total Split (s)	55.0	55.0	55.0	55.0	55.0	23.0	50.8	50.8	14.2	42.0	42.0
Total Split (%)	45.8%	45.8%	45.8%	45.8%	45.8%	19.2%	42.3%	42.3%	11.8%	35.0%	35.0%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 107.8
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 25: Euclid Av. (SR-83) & Edison Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	156	237	97	33	416	63	208	869	37	63	799	167
Future Volume (veh/h)	156	237	97	33	416	63	208	869	37	63	799	167
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	162	247	46	34	433	61	217	905	31	66	832	123
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	238	765	648	411	656	92	243	1292	576	82	954	415
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.15	0.38	0.38	0.05	0.28	0.28
Sat Flow, veh/h	866	1800	1524	1042	1543	217	1619	3420	1525	1619	3420	1488
Grp Volume(v), veh/h	162	247	46	34	0	494	217	905	31	66	832	123
Grp Sat Flow(s),veh/h/ln	866	1800	1524	1042	0	1761	1619	1710	1525	1619	1710	1488
Q Serve(g_s), s	20.7	10.3	2.0	2.5	0.0	25.3	14.9	25.3	1.5	4.6	26.2	7.3
Cycle Q Clear(g_c), s	46.1	10.3	2.0	12.9	0.0	25.3	14.9	25.3	1.5	4.6	26.2	7.3
Prop In Lane	1.00		1.00	1.00		0.12	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	238	765	648	411	0	749	243	1292	576	82	954	415
V/C Ratio(X)	0.68	0.32	0.07	0.08	0.00	0.66	0.89	0.70	0.05	0.80	0.87	0.30
Avail Cap(c_a), veh/h	238	765	648	411	0	749	280	1357	605	153	1091	475
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.3	21.6	19.2	25.9	0.0	25.9	47.1	29.7	22.3	53.0	38.8	32.0
Incr Delay (d2), s/veh	7.7	0.2	0.0	0.1	0.0	2.1	24.4	1.5	0.0	6.6	7.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	4.2	0.7	0.6	0.0	10.4	7.3	9.8	0.5	1.9	11.2	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.0	21.9	19.3	26.0	0.0	28.1	71.6	31.3	22.3	59.6	46.0	32.4
LnGrp LOS	D	C	B	C	A	C	E	C	C	E	D	C
Approach Vol, veh/h		455			528			1153			1021	
Approach Delay, s/veh		32.3			27.9			38.6			45.2	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.2	48.6		55.0	20.4	37.5		55.0				
Change Period (Y+Rc), s	3.5	6.0		7.0	3.5	6.0		7.0				
Max Green Setting (Gmax), s	10.7	44.8		48.0	19.5	36.0		48.0				
Max Q Clear Time (g_c+I1), s	6.6	27.3		48.1	16.9	28.2		27.3				
Green Ext Time (p_c), s	0.0	5.2		0.0	0.1	3.3		2.9				

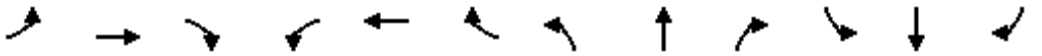
Intersection Summary			
HCM 6th Ctrl Delay		38.1	
HCM 6th LOS		D	

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	67	25	150	32	151	169	1060	12	22	954	40
Future Volume (vph)	67	25	150	32	151	169	1060	12	22	954	40
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	46.8	46.8	46.8	46.8	46.8	8.5	30.7	30.7	8.5	37.7	37.7
Total Split (s)	46.8	46.8	46.8	46.8	46.8	24.0	63.5	63.5	9.7	49.2	49.2
Total Split (%)	39.0%	39.0%	39.0%	39.0%	39.0%	20.0%	52.9%	52.9%	8.1%	41.0%	41.0%
Yellow Time (s)	4.3	4.3	4.3	4.3	4.3	3.0	4.7	4.7	3.0	4.7	4.7
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.8	4.8	3.5	5.7	5.7	3.5	5.7	5.7
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 74.4
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 26: Euclid Av. (SR-83) & Eucalyptus Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	25	150	32	151	37	169	1060	12	22	954	40
Future Volume (veh/h)	67	25	150	32	151	37	169	1060	12	22	954	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	68	26	67	33	154	30	172	1082	11	22	973	30
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	254	353	299	367	287	56	217	1750	780	42	1382	616
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.13	0.51	0.51	0.03	0.40	0.40
Sat Flow, veh/h	1151	1800	1525	1250	1464	285	1619	3420	1525	1619	3420	1524
Grp Volume(v), veh/h	68	26	67	33	0	184	172	1082	11	22	973	30
Grp Sat Flow(s),veh/h/ln	1151	1800	1525	1250	0	1749	1619	1710	1525	1619	1710	1524
Q Serve(g_s), s	3.0	0.6	1.9	1.2	0.0	5.0	5.4	11.9	0.2	0.7	12.5	0.6
Cycle Q Clear(g_c), s	7.9	0.6	1.9	1.8	0.0	5.0	5.4	11.9	0.2	0.7	12.5	0.6
Prop In Lane	1.00		1.00	1.00		0.16	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	254	353	299	367	0	343	217	1750	780	42	1382	616
V/C Ratio(X)	0.27	0.07	0.22	0.09	0.00	0.54	0.79	0.62	0.01	0.52	0.70	0.05
Avail Cap(c_a), veh/h	946	1436	1217	1119	0	1395	630	3755	1675	191	2826	1259
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.6	17.3	17.8	18.0	0.0	19.0	22.1	9.2	6.3	25.3	13.1	9.5
Incr Delay (d2), s/veh	0.4	0.1	0.3	0.1	0.0	1.0	4.9	0.4	0.0	7.2	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.2	0.6	0.3	0.0	1.8	2.0	2.6	0.0	0.3	3.3	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.0	17.3	18.1	18.1	0.0	20.0	27.0	9.5	6.3	32.5	13.7	9.6
LnGrp LOS	C	B	B	B	A	B	C	A	A	C	B	A
Approach Vol, veh/h		161			217			1265			1025	
Approach Delay, s/veh		20.0			19.7			11.9			14.0	
Approach LOS		C			B			B			B	

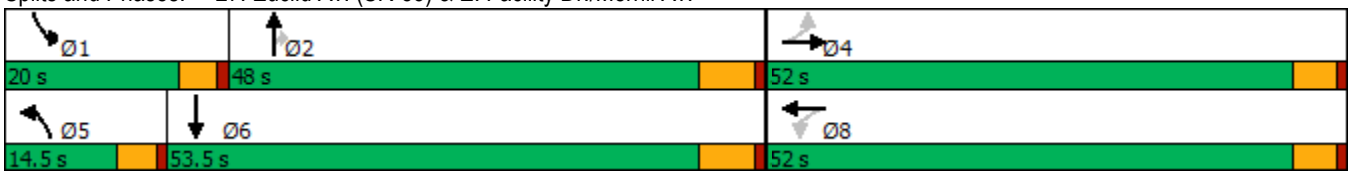
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.9	32.6		15.1	10.5	27.0		15.1				
Change Period (Y+Rc), s	3.5	5.7		4.8	3.5	5.7		4.8				
Max Green Setting (Gmax), s	6.2	57.8		42.0	20.5	43.5		42.0				
Max Q Clear Time (g_c+I1), s	2.7	13.9		9.9	7.4	14.5		7.0				
Green Ext Time (p_c), s	0.0	8.2		0.4	0.2	6.7		0.8				

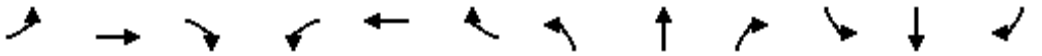
Intersection Summary			
HCM 6th Ctrl Delay		13.8	
HCM 6th LOS		B	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	4	8	225	48	10	1013	140	120	981
Future Volume (vph)	4	8	225	48	10	1013	140	120	981
Turn Type	Perm	NA	Perm	NA	Prot	NA	Perm	Prot	NA
Protected Phases		4		8	5	2		1	6
Permitted Phases	4		8				2		
Detector Phase	4	4	8	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	15.0	15.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	10.0	10.0	46.0	46.0	14.5	28.0	28.0	14.5	28.0
Total Split (s)	52.0	52.0	52.0	52.0	14.5	48.0	48.0	20.0	53.5
Total Split (%)	43.3%	43.3%	43.3%	43.3%	12.1%	40.0%	40.0%	16.7%	44.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.5	5.0	5.0	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	4.5	6.0	6.0	4.5	6.0
Lead/Lag					Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 107.1
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 27: Euclid Av. (SR-83) & E. Facility Dr./Merrill Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	8	17	225	48	228	10	1013	140	120	981	39
Future Volume (veh/h)	4	8	17	225	48	228	10	1013	140	120	981	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	4	8	17	232	49	208	10	1044	101	124	1011	26
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	95	184	330	307	56	225	40	1255	560	172	1528	39
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.02	0.37	0.37	0.11	0.45	0.45
Sat Flow, veh/h	139	519	933	701	159	637	1619	3420	1525	1619	3404	88
Grp Volume(v), veh/h	29	0	0	489	0	0	10	1044	101	124	508	529
Grp Sat Flow(s),veh/h/ln	1591	0	0	1497	0	0	1619	1710	1525	1619	1710	1782
Q Serve(g_s), s	0.0	0.0	0.0	27.0	0.0	0.0	0.5	24.9	4.0	6.6	20.9	20.9
Cycle Q Clear(g_c), s	1.1	0.0	0.0	28.1	0.0	0.0	0.5	24.9	4.0	6.6	20.9	20.9
Prop In Lane	0.14		0.59	0.47		0.43	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	609	0	0	589	0	0	40	1255	560	172	767	800
V/C Ratio(X)	0.05	0.00	0.00	0.83	0.00	0.00	0.25	0.83	0.18	0.72	0.66	0.66
Avail Cap(c_a), veh/h	867	0	0	843	0	0	181	1602	714	280	906	944
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.1	0.0	0.0	27.7	0.0	0.0	42.9	25.9	19.2	38.8	19.4	19.4
Incr Delay (d2), s/veh	0.0	0.0	0.0	3.3	0.0	0.0	1.2	3.1	0.2	2.1	1.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	9.5	0.0	0.0	0.2	9.4	1.3	2.6	7.3	7.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.1	0.0	0.0	31.0	0.0	0.0	44.1	29.0	19.4	40.9	20.8	20.7
LnGrp LOS	B	A	A	C	A	A	D	C	B	D	C	C
Approach Vol, veh/h		29			489			1155			1161	
Approach Delay, s/veh		19.1			31.0			28.3			22.9	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.0	38.9		36.7	6.7	46.2		36.7				
Change Period (Y+Rc), s	4.5	6.0		5.0	4.5	6.0		5.0				
Max Green Setting (Gmax), s	15.5	42.0		47.0	10.0	47.5		47.0				
Max Q Clear Time (g_c+I1), s	8.6	26.9		3.1	2.5	22.9		30.1				
Green Ext Time (p_c), s	0.1	6.0		0.1	0.0	6.1		1.6				

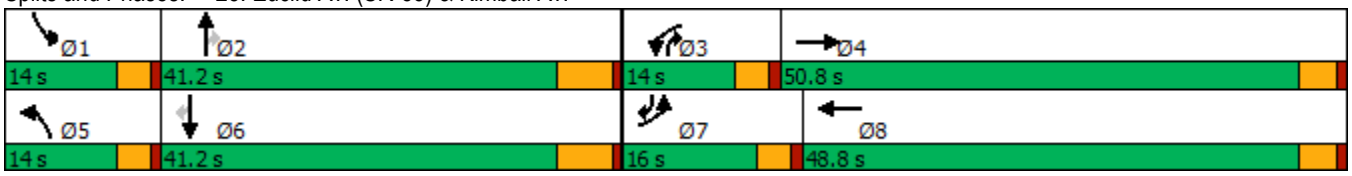
Intersection Summary												
HCM 6th Ctrl Delay			26.4									
HCM 6th LOS			C									

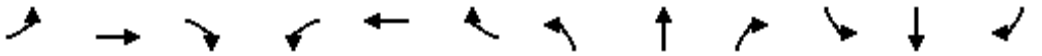
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	124	223	44	721	84	704	28	190	586	377
Future Volume (vph)	124	223	44	721	84	704	28	190	586	377
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	3	8	5	2	3	1	6	7
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	7
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	14.0	49.5	14.0	45.5	14.0	36.0	14.0	9.0	33.0	14.0
Total Split (s)	16.0	50.8	14.0	48.8	14.0	41.2	14.0	14.0	41.2	16.0
Total Split (%)	13.3%	42.3%	11.7%	40.7%	11.7%	34.3%	11.7%	11.7%	34.3%	13.3%
Yellow Time (s)	3.0	3.5	3.0	3.5	3.0	5.0	3.0	3.0	5.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.5	4.0	4.5	4.0	6.0	4.0	4.0	6.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	None	Min	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 102.6
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 28: Euclid Av. (SR-83) & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	223	32	44	721	295	84	704	28	190	586	377
Future Volume (veh/h)	124	223	32	44	721	295	84	704	28	190	586	377
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1600	1800	1800	1700	1800	1800	1700	1800	1800	1600	1800	1800
Adj Flow Rate, veh/h	127	228	24	45	736	265	86	718	17	194	598	256
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	314	1167	122	121	843	304	158	891	512	255	852	537
Arrive On Green	0.11	0.37	0.37	0.07	0.34	0.34	0.10	0.26	0.26	0.09	0.25	0.25
Sat Flow, veh/h	2956	3126	326	1619	2463	887	1619	3420	1525	2956	3420	1506
Grp Volume(v), veh/h	127	124	128	45	511	490	86	718	17	194	598	256
Grp Sat Flow(s),veh/h/ln	1478	1710	1741	1619	1710	1640	1619	1710	1525	1478	1710	1506
Q Serve(g_s), s	3.6	4.4	4.5	2.4	25.3	25.3	4.6	17.8	0.7	5.8	14.4	11.9
Cycle Q Clear(g_c), s	3.6	4.4	4.5	2.4	25.3	25.3	4.6	17.8	0.7	5.8	14.4	11.9
Prop In Lane	1.00		0.19	1.00		0.54	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	314	639	650	121	585	561	158	891	512	255	852	537
V/C Ratio(X)	0.40	0.19	0.20	0.37	0.87	0.87	0.54	0.81	0.03	0.76	0.70	0.48
Avail Cap(c_a), veh/h	393	876	892	179	838	804	179	1332	709	327	1332	748
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	19.1	19.1	39.8	27.9	27.9	38.8	31.3	20.2	40.4	30.9	22.6
Incr Delay (d2), s/veh	0.3	0.1	0.1	0.7	5.4	5.6	1.1	2.3	0.0	5.3	1.1	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.6	1.7	0.9	10.3	9.9	1.7	6.9	0.2	2.2	5.5	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.0	19.3	19.3	40.5	33.3	33.5	39.9	33.5	20.2	45.7	31.9	23.3
LnGrp LOS	D	B	B	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		379			1046			821			1048	
Approach Delay, s/veh		25.6			33.7			33.9			32.4	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.8	29.5	10.8	38.2	12.8	28.5	13.6	35.4
Change Period (Y+Rc), s	4.0	6.0	4.0	4.5	4.0	6.0	4.0	4.5
Max Green Setting (Gmax), s	10.0	35.2	10.0	46.3	10.0	35.2	12.0	44.3
Max Q Clear Time (g_c+I1), s	7.8	19.8	4.4	6.5	6.6	16.4	5.6	27.3
Green Ext Time (p_c), s	0.1	3.8	0.0	1.3	0.0	4.1	0.1	3.6

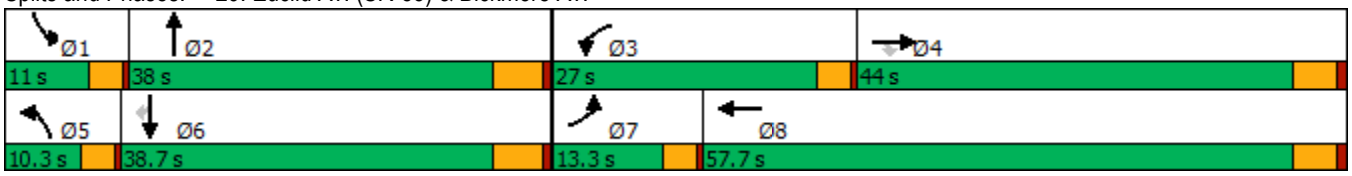
Intersection Summary	
HCM 6th Ctrl Delay	32.4
HCM 6th LOS	C

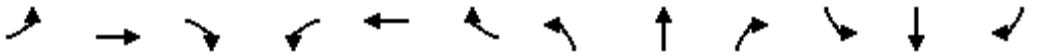
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	47	8	23	166	195	27	546	34	575	142
Future Volume (vph)	47	8	23	166	195	27	546	34	575	142
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.5	44.0	44.0	8.5	44.0	8.5	26.5	8.5	30.5	30.5
Total Split (s)	13.3	44.0	44.0	27.0	57.7	10.3	38.0	11.0	38.7	38.7
Total Split (%)	11.1%	36.7%	36.7%	22.5%	48.1%	8.6%	31.7%	9.2%	32.3%	32.3%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	3.0	4.5	3.0	4.5	4.5
All-Red Time (s)	0.5	1.0	1.0	0.5	1.0	0.5	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.5	3.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 66
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 29: Euclid Av. (SR-83) & Bickmore Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	8	23	166	195	131	27	546	20	34	575	142
Future Volume (veh/h)	47	8	23	166	195	131	27	546	20	34	575	142
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	52	9	22	184	217	107	30	607	15	38	639	110
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	86	287	243	232	284	140	56	892	22	68	919	410
Arrive On Green	0.05	0.16	0.16	0.14	0.25	0.25	0.03	0.26	0.26	0.04	0.27	0.27
Sat Flow, veh/h	1619	1800	1525	1619	1138	561	1619	3411	84	1619	3420	1525
Grp Volume(v), veh/h	52	9	22	184	0	324	30	304	318	38	639	110
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1619	0	1699	1619	1710	1785	1619	1710	1525
Q Serve(g_s), s	1.4	0.2	0.5	4.9	0.0	7.9	0.8	7.1	7.1	1.0	7.5	2.5
Cycle Q Clear(g_c), s	1.4	0.2	0.5	4.9	0.0	7.9	0.8	7.1	7.1	1.0	7.5	2.5
Prop In Lane	1.00		1.00	1.00		0.33	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	86	287	243	232	0	423	56	447	467	68	919	410
V/C Ratio(X)	0.60	0.03	0.09	0.79	0.00	0.77	0.53	0.68	0.68	0.56	0.70	0.27
Avail Cap(c_a), veh/h	357	1580	1339	856	0	2015	248	1251	1306	273	2556	1140
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.6	15.8	15.9	18.4	0.0	15.5	21.1	14.7	14.7	20.9	14.6	12.8
Incr Delay (d2), s/veh	2.5	0.0	0.1	2.3	0.0	1.1	2.9	0.7	0.7	2.6	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.1	0.2	1.6	0.0	2.5	0.3	2.0	2.1	0.4	2.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.1	15.8	16.0	20.8	0.0	16.6	24.0	15.4	15.4	23.5	15.0	12.9
LnGrp LOS	C	B	B	C	A	B	C	B	B	C	B	B
Approach Vol, veh/h		83			508			652			787	
Approach Delay, s/veh		20.4			18.1			15.8			15.1	
Approach LOS		C			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.4	17.1	9.9	12.1	5.0	17.4	5.9	16.1
Change Period (Y+Rc), s	3.5	5.5	3.5	5.0	3.5	5.5	3.5	5.0
Max Green Setting (Gmax), s	7.5	32.5	23.5	39.0	6.8	33.2	9.8	52.7
Max Q Clear Time (g_c+I1), s	3.0	9.1	6.9	2.5	2.8	9.5	3.4	9.9
Green Ext Time (p_c), s	0.0	1.8	0.2	0.0	0.0	2.5	0.0	1.2

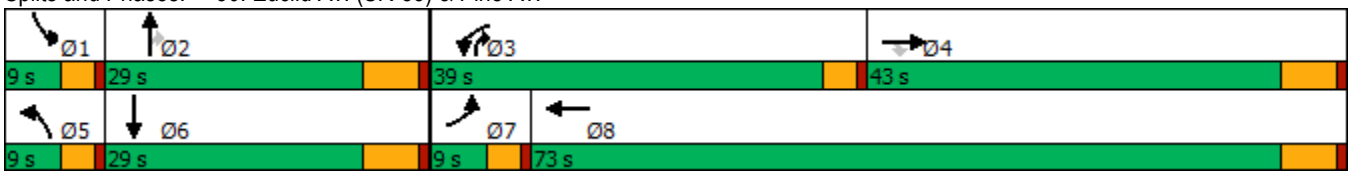
Intersection Summary	
HCM 6th Ctrl Delay	16.3
HCM 6th LOS	B

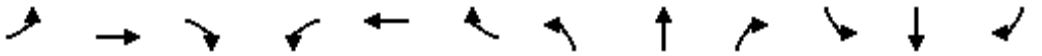
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	8	173	47	981	306	51	612	650	34	617
Future Volume (vph)	8	173	47	981	306	51	612	650	34	617
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4		3	8	5	2	3	1	6
Permitted Phases			4					2		
Detector Phase	7	4	4	3	8	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.0	43.0	43.0	9.0	45.0	9.0	11.0	9.0	9.0	29.0
Total Split (s)	9.0	43.0	43.0	39.0	73.0	9.0	29.0	39.0	9.0	29.0
Total Split (%)	7.5%	35.8%	35.8%	32.5%	60.8%	7.5%	24.2%	32.5%	7.5%	24.2%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0	3.0	3.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	4.0	6.0	4.0	4.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 99.9
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 30: Euclid Av. (SR-83) & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	173	47	981	306	25	51	612	650	34	617	16
Future Volume (veh/h)	8	173	47	981	306	25	51	612	650	34	617	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1600	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	8	178	0	1011	315	24	53	631	414	35	636	12
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	16	241		1087	812	62	69	771	897	54	743	14
Arrive On Green	0.01	0.13	0.00	0.37	0.49	0.49	0.04	0.23	0.23	0.03	0.22	0.22
Sat Flow, veh/h	1619	1800	1525	2956	1652	126	1619	3420	1492	1619	3434	65
Grp Volume(v), veh/h	8	178	0	1011	0	339	53	631	414	35	317	331
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1478	0	1777	1619	1710	1492	1619	1710	1788
Q Serve(g_s), s	0.4	7.9	0.0	27.4	0.0	10.0	2.7	14.6	13.0	1.8	14.9	14.9
Cycle Q Clear(g_c), s	0.4	7.9	0.0	27.4	0.0	10.0	2.7	14.6	13.0	1.8	14.9	14.9
Prop In Lane	1.00		1.00	1.00		0.07	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	16	241		1087	0	874	69	771	897	54	370	387
V/C Ratio(X)	0.49	0.74		0.93	0.00	0.39	0.77	0.82	0.46	0.65	0.86	0.86
Avail Cap(c_a), veh/h	97	798		1239	0	1426	97	942	972	97	471	493
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.1	34.7	0.0	25.4	0.0	13.3	39.6	30.7	9.6	39.9	31.5	31.5
Incr Delay (d2), s/veh	8.1	6.1	0.0	10.8	0.0	0.4	13.1	4.0	0.1	4.8	10.0	9.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	3.7	0.0	10.0	0.0	3.4	1.2	5.8	3.3	0.7	6.5	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.2	40.9	0.0	36.2	0.0	13.7	52.7	34.7	9.7	44.7	41.5	41.1
LnGrp LOS	D	D		D	A	B	D	C	A	D	D	D
Approach Vol, veh/h		186	A		1350			1098			683	
Approach Delay, s/veh		41.2			30.5			26.1			41.5	
Approach LOS		D			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	24.8	34.7	17.2	7.5	24.1	4.8	47.1
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	5.0	23.0	35.0	37.0	5.0	23.0	5.0	67.0
Max Q Clear Time (g_c+I1), s	3.8	16.6	29.4	9.9	4.7	16.9	2.4	12.0
Green Ext Time (p_c), s	0.0	1.9	1.3	1.3	0.0	1.2	0.0	2.9

Intersection Summary	
HCM 6th Ctrl Delay	31.9
HCM 6th LOS	C

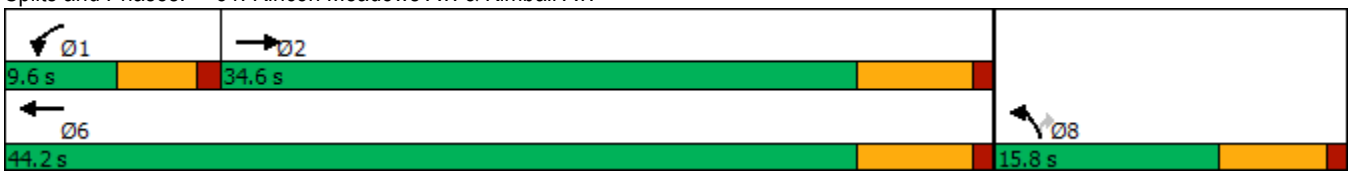
Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	408	14	936	75	28
Future Volume (vph)	408	14	936	75	28
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	2	1	6	8	
Permitted Phases					8
Detector Phase	2	1	6	8	8
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	26.2	9.6	16.2	15.8	15.8
Total Split (s)	34.6	9.6	44.2	15.8	15.8
Total Split (%)	57.7%	16.0%	73.7%	26.3%	26.3%
Yellow Time (s)	5.2	3.6	5.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	6.2	5.8	5.8
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	None	None	None	Max	Max

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 55.4
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 31: Rincon Meadows Av. & Kimball Av.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	408	35	14	936	75	28
Future Volume (veh/h)	408	35	14	936	75	28
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1800	1800	1700	1800	1700	1800
Adj Flow Rate, veh/h	421	30	14	965	77	3
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1592	113	28	1069	299	282
Arrive On Green	0.49	0.49	0.02	0.59	0.18	0.18
Sat Flow, veh/h	3329	230	1619	1800	1619	1525
Grp Volume(v), veh/h	222	229	14	965	77	3
Grp Sat Flow(s),veh/h/ln	1710	1759	1619	1800	1619	1525
Q Serve(g_s), s	4.1	4.1	0.5	25.4	2.2	0.1
Cycle Q Clear(g_c), s	4.1	4.1	0.5	25.4	2.2	0.1
Prop In Lane		0.13	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	841	864	28	1069	299	282
V/C Ratio(X)	0.26	0.27	0.49	0.90	0.26	0.01
Avail Cap(c_a), veh/h	896	922	149	1262	299	282
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.0	8.1	26.4	9.6	18.9	18.1
Incr Delay (d2), s/veh	0.2	0.2	12.6	8.3	2.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.1	0.3	7.3	0.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.2	8.2	39.0	17.9	21.0	18.1
LnGrp LOS	A	A	D	B	C	B
Approach Vol, veh/h	451			979	80	
Approach Delay, s/veh	8.2			18.2	20.9	
Approach LOS	A			B	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	5.6	32.8				38.4	15.8
Change Period (Y+Rc), s	4.6	6.2				6.2	5.8
Max Green Setting (Gmax), s	5.0	28.4				38.0	10.0
Max Q Clear Time (g_c+I1), s	2.5	6.1				27.4	4.2
Green Ext Time (p_c), s	0.0	2.2				4.8	0.1

Intersection Summary			
HCM 6th Ctrl Delay		15.4	
HCM 6th LOS		B	

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	366	21	770	178	55
Future Volume (vph)	366	21	770	178	55
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	2	1	6	8	
Permitted Phases					8
Detector Phase	2	1	6	8	8
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	23.2	9.6	16.2	15.4	15.4
Total Split (s)	33.4	9.6	43.0	17.0	17.0
Total Split (%)	55.7%	16.0%	71.7%	28.3%	28.3%
Yellow Time (s)	5.2	3.6	5.2	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	6.2	5.4	5.4
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	None	None	None	Max	Max

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 52.1
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 33: Mill Creek Av. & Kimball Av.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	366	71	21	770	178	55
Future Volume (veh/h)	366	71	21	770	178	55
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1800	1800	1700	1800	1700	1800
Adj Flow Rate, veh/h	398	69	23	837	193	34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1218	209	44	966	375	353
Arrive On Green	0.42	0.42	0.03	0.54	0.23	0.23
Sat Flow, veh/h	3008	502	1619	1800	1619	1525
Grp Volume(v), veh/h	232	235	23	837	193	34
Grp Sat Flow(s),veh/h/ln	1710	1710	1619	1800	1619	1525
Q Serve(g_s), s	4.6	4.6	0.7	20.2	5.2	0.9
Cycle Q Clear(g_c), s	4.6	4.6	0.7	20.2	5.2	0.9
Prop In Lane		0.29	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	714	714	44	966	375	353
V/C Ratio(X)	0.32	0.33	0.52	0.87	0.51	0.10
Avail Cap(c_a), veh/h	929	929	162	1323	375	353
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.8	9.9	24.0	10.0	16.8	15.1
Incr Delay (d2), s/veh	0.3	0.3	3.5	4.8	5.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.2	0.3	5.4	2.1	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.1	10.1	27.5	14.8	21.8	15.7
LnGrp LOS	B	B	C	B	C	B
Approach Vol, veh/h	467			860	227	
Approach Delay, s/veh	10.1			15.1	20.8	
Approach LOS	B			B	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	6.0	27.1				33.1	17.0
Change Period (Y+Rc), s	4.6	6.2				6.2	5.4
Max Green Setting (Gmax), s	5.0	27.2				36.8	11.6
Max Q Clear Time (g_c+I1), s	2.7	6.6				22.2	7.2
Green Ext Time (p_c), s	0.0	2.3				4.7	0.2

Intersection Summary	
HCM 6th Ctrl Delay	14.5
HCM 6th LOS	B

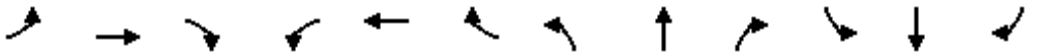
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	34	741	72	61	1239	122	63	12	27	32
Future Volume (vph)	34	741	72	61	1239	122	63	12	27	32
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	NA
Protected Phases	7	4		3	8			2		6
Permitted Phases			4			8	2		6	
Detector Phase	7	4	4	3	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	16.2	9.6	23.2	23.2	15.8	15.8	15.2	15.2
Total Split (s)	9.6	88.4	88.4	15.3	94.1	94.1	16.3	16.3	16.3	16.3
Total Split (%)	8.0%	73.7%	73.7%	12.8%	78.4%	78.4%	13.6%	13.6%	13.6%	13.6%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	5.2	4.8	4.8	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	6.2	5.8	5.8	5.2	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 114.7
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 34: Chino Corona Rd. & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	741	72	61	1239	122	63	12	14	27	32	44
Future Volume (veh/h)	34	741	72	61	1239	122	63	12	14	27	32	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	36	780	0	64	1304	101	66	13	10	28	34	45
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	47	2469		80	1336	1132	114	84	64	162	62	82
Arrive On Green	0.03	0.72	0.00	0.05	0.74	0.74	0.09	0.09	0.09	0.09	0.09	0.09
Sat Flow, veh/h	1619	3420	1525	1619	1800	1525	1266	944	726	1332	703	930
Grp Volume(v), veh/h	36	780	0	64	1304	101	66	0	23	28	0	79
Grp Sat Flow(s),veh/h/ln	1619	1710	1525	1619	1800	1525	1266	0	1669	1332	0	1633
Q Serve(g_s), s	2.6	9.7	0.0	4.6	80.4	2.2	5.0	0.0	1.5	2.4	0.0	5.5
Cycle Q Clear(g_c), s	2.6	9.7	0.0	4.6	80.4	2.2	10.5	0.0	1.5	3.9	0.0	5.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.43	1.00		0.57
Lane Grp Cap(c), veh/h	47	2469		80	1336	1132	114	0	148	162	0	145
V/C Ratio(X)	0.76	0.32		0.80	0.98	0.09	0.58	0.00	0.16	0.17	0.00	0.55
Avail Cap(c_a), veh/h	68	2469		146	1336	1132	114	0	148	169	0	153
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.1	5.9	0.0	55.7	14.3	4.2	57.2	0.0	49.9	51.7	0.0	51.7
Incr Delay (d2), s/veh	13.7	0.3	0.0	6.8	19.6	0.2	7.0	0.0	0.5	0.5	0.0	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.8	0.0	2.0	29.5	0.6	2.2	0.0	0.6	0.8	0.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.8	6.3	0.0	62.5	33.9	4.4	64.2	0.0	50.4	52.2	0.0	55.3
LnGrp LOS	E	A		E	C	A	E	A	D	D	A	E
Approach Vol, veh/h		816	A		1469			89			107	
Approach Delay, s/veh		9.1			33.1			60.6			54.5	
Approach LOS		A			C			E			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		16.3	10.4	91.7		16.3	8.1	94.1				
Change Period (Y+Rc), s		5.8	4.6	6.2		* 5.8	4.6	6.2				
Max Green Setting (Gmax), s		10.5	10.7	82.2		* 11	5.0	87.9				
Max Q Clear Time (g_c+I1), s		12.5	6.6	11.7		7.5	4.6	82.4				
Green Ext Time (p_c), s		0.0	0.0	5.5		0.1	0.0	4.2				

Intersection Summary		
HCM 6th Ctrl Delay		27.1
HCM 6th LOS		C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	0	92	0	1	0	25	4	0
Future Vol, veh/h	0	0	0	0	0	92	0	1	0	25	4	0
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	114	0	1	0	31	5	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	0	6.8	7.2	7.5
HCM LOS	-	A	A	A

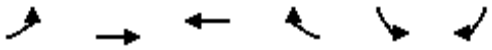
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	0%	86%
Vol Thru, %	100%	100%	0%	14%
Vol Right, %	0%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	1	0	92	29
LT Vol	0	0	0	25
Through Vol	1	0	0	4
RT Vol	0	0	92	0
Lane Flow Rate	1	0	114	36
Geometry Grp	1	1	1	1
Degree of Util (X)	0.001	0	0.106	0.042
Departure Headway (Hd)	4.127	4.05	3.364	4.273
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	868	0	1065	841
Service Time	2.146	2.074	1.384	2.283
HCM Lane V/C Ratio	0.001	0	0.107	0.043
HCM Control Delay	7.2	7.1	6.8	7.5
HCM Lane LOS	A	N	A	A
HCM 95th-tile Q	0	0	0.4	0.1

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	22	760	1411	75	11
Future Volume (vph)	22	760	1411	75	11
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	7	4	8	6	
Permitted Phases					6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	14.7	14.7
Total Split (s)	11.4	99.4	88.0	20.6	20.6
Total Split (%)	9.5%	82.8%	73.3%	17.2%	17.2%
Yellow Time (s)	3.6	4.8	4.8	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.7	4.7
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 87.1
Natural Cycle: 70
Control Type: Actuated-Uncoordinated

Splits and Phases: 36: Pine Av. & West Preserve Loop





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	760	1411	229	75	11
Future Volume (veh/h)	22	760	1411	229	75	11
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1700	1800
Adj Flow Rate, veh/h	23	809	1501	234	80	10
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	40	2607	2034	312	188	177
Arrive On Green	0.02	0.76	0.68	0.68	0.12	0.12
Sat Flow, veh/h	1619	3510	3062	456	1619	1525
Grp Volume(v), veh/h	23	809	853	882	80	10
Grp Sat Flow(s),veh/h/ln	1619	1710	1710	1718	1619	1525
Q Serve(g_s), s	1.2	6.4	27.1	28.7	4.0	0.5
Cycle Q Clear(g_c), s	1.2	6.4	27.1	28.7	4.0	0.5
Prop In Lane	1.00			0.27	1.00	1.00
Lane Grp Cap(c), veh/h	40	2607	1170	1176	188	177
V/C Ratio(X)	0.58	0.31	0.73	0.75	0.43	0.06
Avail Cap(c_a), veh/h	128	3712	1630	1638	299	281
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.6	3.2	8.6	8.8	35.4	33.9
Incr Delay (d2), s/veh	12.6	0.1	1.4	1.6	1.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.0	6.9	7.4	1.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	54.2	3.3	10.0	10.5	37.0	34.0
LnGrp LOS	D	A	A	B	D	C
Approach Vol, veh/h		832	1735		90	
Approach Delay, s/veh		4.7	10.2		36.6	
Approach LOS		A	B		D	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			71.5		14.7	6.7	64.8
Change Period (Y+Rc), s			5.8		4.7	4.6	5.8
Max Green Setting (Gmax), s			93.6		15.9	6.8	82.2
Max Q Clear Time (g_c+I1), s			8.4		6.0	3.2	30.7
Green Ext Time (p_c), s			9.0		0.1	0.0	28.3

Intersection Summary	
HCM 6th Ctrl Delay	9.4
HCM 6th LOS	A

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	310	83	606	185	129
Future Volume (vph)	310	83	606	185	129
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	2	1	6	8	
Permitted Phases					8
Detector Phase	2	1	6	8	8
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	32.2	9.6	16.2	14.6	14.6
Total Split (s)	32.9	11.0	43.9	16.1	16.1
Total Split (%)	54.8%	18.3%	73.2%	26.8%	26.8%
Yellow Time (s)	5.2	3.6	5.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	6.2	4.6	4.6
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	None	None	None	Max	Max

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 45.8
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 37: Main St. & Kimball Av.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	310	111	83	606	185	129
Future Volume (veh/h)	310	111	83	606	185	129
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1800	1800	1700	1800	1700	1800
Adj Flow Rate, veh/h	352	100	94	689	210	75
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	752	211	128	851	440	415
Arrive On Green	0.29	0.29	0.08	0.47	0.27	0.27
Sat Flow, veh/h	2727	739	1619	1800	1619	1525
Grp Volume(v), veh/h	227	225	94	689	210	75
Grp Sat Flow(s),veh/h/ln	1710	1666	1619	1800	1619	1525
Q Serve(g_s), s	4.6	4.7	2.4	13.8	4.6	1.6
Cycle Q Clear(g_c), s	4.6	4.7	2.4	13.8	4.6	1.6
Prop In Lane		0.44	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	487	475	128	851	440	415
V/C Ratio(X)	0.46	0.47	0.73	0.81	0.48	0.18
Avail Cap(c_a), veh/h	1079	1051	245	1604	440	415
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.5	12.5	19.0	9.5	12.9	11.8
Incr Delay (d2), s/veh	0.7	0.7	3.0	1.9	3.7	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.3	0.8	3.1	1.9	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.2	13.2	22.1	11.4	16.6	12.7
LnGrp LOS	B	B	C	B	B	B
Approach Vol, veh/h	452			783	285	
Approach Delay, s/veh	13.2			12.7	15.6	
Approach LOS	B			B	B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	7.9	18.3				26.2	16.1
Change Period (Y+Rc), s	4.6	6.2				6.2	4.6
Max Green Setting (Gmax), s	6.4	26.7				37.7	11.5
Max Q Clear Time (g_c+I1), s	4.4	6.7				15.8	6.6
Green Ext Time (p_c), s	0.0	2.2				4.2	0.4

Intersection Summary			
HCM 6th Ctrl Delay		13.4	
HCM 6th LOS		B	

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	162	250	21	15	584	93	6	11	24	23	11	112
Future Vol, veh/h	162	250	21	15	584	93	6	11	24	23	11	112
Conflicting Peds, #/hr	0	0	2	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	310	-	-	120	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	171	263	22	16	615	98	6	12	25	24	12	118

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	713	0	0	287	0	0	1379	1363	145	1176	1325	664
Stage 1	-	-	-	-	-	-	618	618	-	696	696	-
Stage 2	-	-	-	-	-	-	761	745	-	480	629	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.5	6.9	7.3	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	896	-	-	1287	-	-	114	149	882	159	157	464
Stage 1	-	-	-	-	-	-	448	484	-	435	446	-
Stage 2	-	-	-	-	-	-	401	424	-	541	478	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	896	-	-	1285	-	-	69	119	880	125	125	464
Mov Cap-2 Maneuver	-	-	-	-	-	-	101	188	-	227	240	-
Stage 1	-	-	-	-	-	-	362	391	-	352	441	-
Stage 2	-	-	-	-	-	-	288	419	-	413	386	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.7	0.2	20.1	21
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	282	896	-	-	1285	-	-	376
HCM Lane V/C Ratio	0.153	0.19	-	-	0.012	-	-	0.409
HCM Control Delay (s)	20.1	10	-	-	7.8	-	-	21
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.5	0.7	-	-	0	-	-	1.9

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	806	28	17	1588	52	50
Future Volume (vph)	806	28	17	1588	52	50
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	35.8	35.8	9.6	15.8	10.1	10.1
Total Split (s)	89.0	89.0	13.0	102.0	18.0	18.0
Total Split (%)	74.2%	74.2%	10.8%	85.0%	15.0%	15.0%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.1	5.1
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 75
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 39: East Preserve Loop & Pine Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	806	28	17	1588	52	50
Future Volume (veh/h)	806	28	17	1588	52	50
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1800	1800	1700	1800	1600	1800
Adj Flow Rate, veh/h	857	27	18	1689	55	32
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	2148	958	33	2413	472	243
Arrive On Green	0.63	0.63	0.02	0.71	0.16	0.16
Sat Flow, veh/h	3510	1525	1619	3510	2956	1525
Grp Volume(v), veh/h	857	27	18	1689	55	32
Grp Sat Flow(s),veh/h/ln	1710	1525	1619	1710	1478	1525
Q Serve(g_s), s	10.1	0.5	0.9	23.2	1.3	1.5
Cycle Q Clear(g_c), s	10.1	0.5	0.9	23.2	1.3	1.5
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2148	958	33	2413	472	243
V/C Ratio(X)	0.40	0.03	0.54	0.70	0.12	0.13
Avail Cap(c_a), veh/h	3520	1570	168	4070	472	243
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.5	5.7	39.2	6.9	29.1	29.2
Incr Delay (d2), s/veh	0.2	0.0	5.0	0.5	0.5	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.1	0.4	4.9	0.5	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.6	5.7	44.2	7.5	29.6	30.3
LnGrp LOS	A	A	D	A	C	C
Approach Vol, veh/h	884			1707	87	
Approach Delay, s/veh	7.6			7.8	29.8	
Approach LOS	A			A	C	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		18.0	6.3	56.6		62.8
Change Period (Y+Rc), s		5.1	4.6	5.8		5.8
Max Green Setting (Gmax), s		12.9	8.4	83.2		96.2
Max Q Clear Time (g_c+I1), s		3.5	2.9	12.1		25.2
Green Ext Time (p_c), s		0.1	0.0	10.0		31.8

Intersection Summary	
HCM 6th Ctrl Delay	8.5
HCM 6th LOS	A

Intersection	
Intersection Delay, s/veh	213.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	0	288	0	0	0	880	49	0	0	28	13
Future Vol, veh/h	18	0	288	0	0	0	880	49	0	0	28	13
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	19	0	303	0	0	0	926	52	0	0	29	14
Number of Lanes	1	0	1	0	0	0	1	2	0	0	2	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	3
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	3	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	3	0	2
HCM Control Delay	16.5	287.5	10.3
HCM LOS	C	F	B

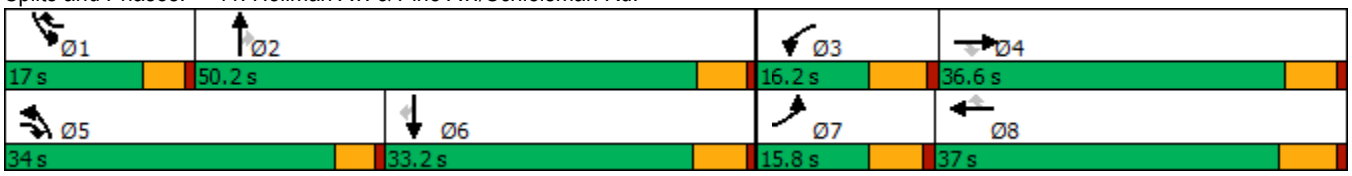
Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	0%	0%	0%
Vol Thru, %	0%	100%	100%	0%	0%	100%	100%	0%
Vol Right, %	0%	0%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	880	25	25	18	288	14	14	13
LT Vol	880	0	0	18	0	0	0	0
Through Vol	0	25	25	0	0	14	14	0
RT Vol	0	0	0	0	288	0	0	13
Lane Flow Rate	926	26	26	19	303	15	15	14
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	1.619	0.041	0.028	0.038	0.504	0.029	0.029	0.018
Departure Headway (Hd)	6.291	5.785	3.964	8.298	7.112	8.171	8.171	5.702
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	584	623	886	434	509	441	441	632
Service Time	3.991	3.485	1.763	5.998	4.812	5.871	5.871	3.402
HCM Lane V/C Ratio	1.586	0.042	0.029	0.044	0.595	0.034	0.034	0.022
HCM Control Delay	303.1	8.7	6.9	11.3	16.8	11.1	11.1	8.5
HCM Lane LOS	F	A	A	B	C	B	B	A
HCM 95th-tile Q	51.1	0.1	0.1	0.1	2.8	0.1	0.1	0.1

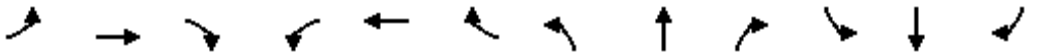
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	441	458	78	986	287	541	441	85	90	145	14
Future Volume (vph)	32	441	458	78	986	287	541	441	85	90	145	14
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	5	3	8	1	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	34.8	9.6	16.2	35.2	9.6	9.6	32.4	32.4	9.6	32.8	32.8
Total Split (s)	15.8	36.6	34.0	16.2	37.0	17.0	34.0	50.2	50.2	17.0	33.2	33.2
Total Split (%)	13.2%	30.5%	28.3%	13.5%	30.8%	14.2%	28.3%	41.8%	41.8%	14.2%	27.7%	27.7%
Yellow Time (s)	4.8	4.8	3.6	5.2	5.2	3.6	3.6	4.4	4.4	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	6.2	6.2	4.6	4.6	5.4	5.4	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 108.5
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 41: Hellman Av. & Pine Av./Schleisman Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	441	458	78	986	287	541	441	85	90	145	14
Future Volume (veh/h)	32	441	458	78	986	287	541	441	85	90	145	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1600	1800	1800	1600	1800	1800	1600	1800	1800	1600	1800	1800
Adj Flow Rate, veh/h	33	450	329	80	1006	180	552	450	44	92	148	11
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	267	1228	696	267	1246	457	611	1394	622	137	846	377
Arrive On Green	0.09	0.25	0.25	0.09	0.25	0.25	0.21	0.41	0.41	0.05	0.25	0.25
Sat Flow, veh/h	2956	4914	1525	2956	4914	1525	2956	3420	1525	2956	3420	1525
Grp Volume(v), veh/h	33	450	329	80	1006	180	552	450	44	92	148	11
Grp Sat Flow(s),veh/h/ln	1478	1638	1525	1478	1638	1525	1478	1710	1525	1478	1710	1525
Q Serve(g_s), s	1.1	8.4	16.6	2.8	21.3	10.4	20.2	9.9	1.9	3.4	3.8	0.6
Cycle Q Clear(g_c), s	1.1	8.4	16.6	2.8	21.3	10.4	20.2	9.9	1.9	3.4	3.8	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	267	1228	696	267	1246	457	611	1394	622	137	846	377
V/C Ratio(X)	0.12	0.37	0.47	0.30	0.81	0.39	0.90	0.32	0.07	0.67	0.17	0.03
Avail Cap(c_a), veh/h	267	1367	739	267	1367	495	785	1394	622	331	846	377
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.3	34.3	20.9	47.1	38.8	30.8	42.9	22.4	20.0	52.0	32.8	31.6
Incr Delay (d2), s/veh	0.3	0.3	0.7	0.9	3.7	0.8	10.2	0.6	0.2	2.1	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	3.2	5.6	1.0	8.5	3.7	7.9	3.9	0.7	1.3	1.5	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.6	34.6	21.6	48.0	42.5	31.6	53.1	23.0	20.2	54.1	33.2	31.7
LnGrp LOS	D	C	C	D	D	C	D	C	C	D	C	C
Approach Vol, veh/h		812			1266			1046			251	
Approach Delay, s/veh		29.8			41.3			38.7			40.8	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	50.9	16.2	33.9	27.5	33.2	15.8	34.3
Change Period (Y+Rc), s	4.6	* 5.8	6.2	* 6.2	4.6	5.8	5.8	6.2
Max Green Setting (Gmax), s	12.4	* 45	10.0	* 31	29.4	27.4	10.0	30.8
Max Q Clear Time (g_c+I1), s	5.4	11.9	4.8	18.6	22.2	5.8	3.1	23.3
Green Ext Time (p_c), s	0.1	4.3	0.1	4.3	0.7	1.0	0.0	4.8

Intersection Summary	
HCM 6th Ctrl Delay	37.7
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	268	729	788	279	180	468
Future Volume (vph)	268	729	788	279	180	468
Turn Type	Prot	pm+ov	NA	pm+ov	Prot	NA
Protected Phases	8	1	2	8	1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	36.3	11.0	46.3	36.3	11.0	11.0
Total Split (s)	36.3	27.0	56.7	36.3	27.0	83.7
Total Split (%)	30.3%	22.5%	47.3%	30.3%	22.5%	69.8%
Yellow Time (s)	4.3	4.0	4.3	4.3	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.0	5.3	5.3	5.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 110.3
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 42: Archibald Av. & Limonite Av.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	268	729	788	279	180	468
Future Volume (veh/h)	268	729	788	279	180	468
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	279	703	821	244	188	488
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	510	651	863	1185	221	1182
Arrive On Green	0.28	0.28	0.45	0.45	0.12	0.62
Sat Flow, veh/h	1810	1610	1900	1610	1810	1900
Grp Volume(v), veh/h	279	703	821	244	188	488
Grp Sat Flow(s),veh/h/ln	1810	1610	1900	1610	1810	1900
Q Serve(g_s), s	14.4	31.0	45.7	5.2	11.2	14.4
Cycle Q Clear(g_c), s	14.4	31.0	45.7	5.2	11.2	14.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	510	651	863	1185	221	1182
V/C Ratio(X)	0.55	1.08	0.95	0.21	0.85	0.41
Avail Cap(c_a), veh/h	510	651	888	1206	362	1359
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.5	32.8	28.9	4.5	47.3	10.6
Incr Delay (d2), s/veh	0.7	59.1	19.3	0.1	9.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	26.4	23.3	3.7	5.4	5.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	34.3	91.8	48.1	4.6	57.2	10.7
LnGrp LOS	C	F	D	A	E	B
Approach Vol, veh/h	982		1065			676
Approach Delay, s/veh	75.5		38.2			23.6
Approach LOS	E		D			C

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	18.4	55.3			73.7	36.3
Change Period (Y+Rc), s	5.0	5.3			* 5.3	5.3
Max Green Setting (Gmax), s	22.0	51.4			* 79	31.0
Max Q Clear Time (g_c+I1), s	13.2	47.7			16.4	33.0
Green Ext Time (p_c), s	0.3	2.3			1.6	0.0

Intersection Summary	
HCM 6th Ctrl Delay	48.0
HCM 6th LOS	D

Notes

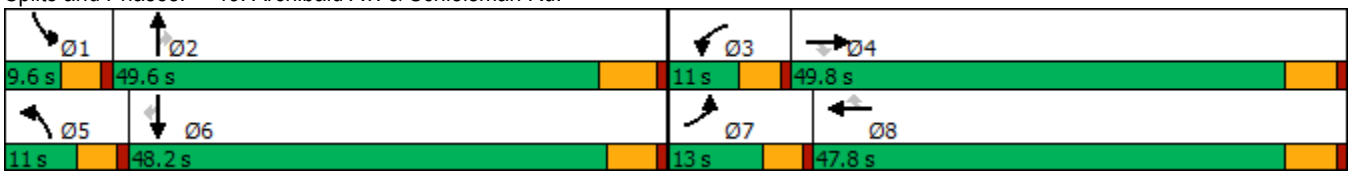
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

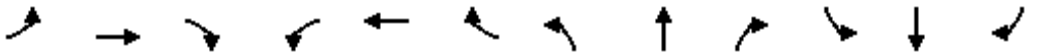
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	383	375	113	248	701	137	241	776	215	103	440	420
Future Volume (vph)	383	375	113	248	701	137	241	776	215	103	440	420
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	47.8	47.8	9.6	47.8	47.8	9.6	48.2	48.2	9.6	47.4	47.4
Total Split (s)	13.0	49.8	49.8	11.0	47.8	47.8	11.0	49.6	49.6	9.6	48.2	48.2
Total Split (%)	10.8%	41.5%	41.5%	9.2%	39.8%	39.8%	9.2%	41.3%	41.3%	8.0%	40.2%	40.2%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	5.2	5.2	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	6.2	6.2	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 106.8
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 43: Archibald Av. & Schleisman Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	383	375	113	248	701	137	241	776	215	103	440	420
Future Volume (veh/h)	383	375	113	248	701	137	241	776	215	103	440	420
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	426	417	62	276	779	75	268	862	166	114	489	345
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	279	2156	659	212	2058	631	212	1434	445	166	1365	418
Arrive On Green	0.08	0.42	0.42	0.06	0.40	0.40	0.06	0.28	0.28	0.05	0.26	0.26
Sat Flow, veh/h	3510	5187	1585	3510	5187	1590	3510	5187	1610	3510	5187	1588
Grp Volume(v), veh/h	426	417	62	276	779	75	268	862	166	114	489	345
Grp Sat Flow(s),veh/h/ln	1755	1729	1585	1755	1729	1590	1755	1729	1610	1755	1729	1588
Q Serve(g_s), s	8.4	5.4	2.5	6.4	11.3	3.2	6.4	15.3	8.8	3.4	8.1	21.7
Cycle Q Clear(g_c), s	8.4	5.4	2.5	6.4	11.3	3.2	6.4	15.3	8.8	3.4	8.1	21.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	279	2156	659	212	2058	631	212	1434	445	166	1365	418
V/C Ratio(X)	1.53	0.19	0.09	1.30	0.38	0.12	1.26	0.60	0.37	0.69	0.36	0.83
Avail Cap(c_a), veh/h	279	2156	659	212	2058	631	212	2127	660	166	2097	642
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.7	19.7	18.8	49.7	22.7	20.2	49.7	33.2	30.9	49.7	31.7	36.7
Incr Delay (d2), s/veh	255.6	0.2	0.3	165.2	0.5	0.4	150.3	0.4	0.5	9.5	0.2	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.4	2.1	0.9	7.6	4.4	1.2	7.1	6.1	3.3	1.6	3.2	8.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	304.3	19.9	19.1	214.9	23.2	20.6	200.0	33.6	31.4	59.2	31.9	42.0
LnGrp LOS	F	B	B	F	C	C	F	C	C	E	C	D
Approach Vol, veh/h		905			1130			1296			948	
Approach Delay, s/veh		153.7			69.9			67.8			38.8	
Approach LOS		F			E			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	35.5	11.0	49.8	11.0	34.1	13.0	47.8
Change Period (Y+Rc), s	4.6	6.2	4.6	5.8	4.6	* 6.2	4.6	5.8
Max Green Setting (Gmax), s	5.0	43.4	6.4	44.0	6.4	* 43	8.4	42.0
Max Q Clear Time (g_c+I1), s	5.4	17.3	8.4	7.4	8.4	23.7	10.4	13.3
Green Ext Time (p_c), s	0.0	6.3	0.0	2.9	0.0	4.0	0.0	5.6

Intersection Summary	
HCM 6th Ctrl Delay	80.1
HCM 6th LOS	F

Notes

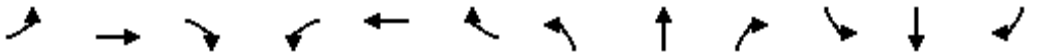
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	WBT	WBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	959	67	780	270	849	0
Future Volume (vph)	959	67	780	270	849	0
Turn Type	NA	Perm	NA	Perm	Perm	NA
Protected Phases	2		6			4
Permitted Phases		2		6	4	
Detector Phase	2	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	22.8	22.8	15.8	15.8
Total Split (s)	23.0	23.0	23.0	23.0	42.0	42.0
Total Split (%)	35.4%	35.4%	35.4%	35.4%	64.6%	64.6%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max	Max	None	None

Intersection Summary
Cycle Length: 65
Actuated Cycle Length: 65
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Central Av. & SR-71 SB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱↱				↰	✣	
Traffic Volume (veh/h)	0	959	67	0	780	270	0	0	0	849	0	826
Future Volume (veh/h)	0	959	67	0	780	270	0	0	0	849	0	826
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	0	1031	0	0	839	0				803	154	693
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1396		0	1396					994	165	744
Arrive On Green	0.00	0.27	0.00	0.00	0.27	0.00				0.55	0.55	0.55
Sat Flow, veh/h	0	5358	1610	0	5358	2834				1810	301	1355
Grp Volume(v), veh/h	0	1031	0	0	839	0				803	0	847
Grp Sat Flow(s),veh/h/ln	0	1729	1610	0	1729	1417				1810	0	1656
Q Serve(g_s), s	0.0	11.6	0.0	0.0	9.0	0.0				23.0	0.0	30.1
Cycle Q Clear(g_c), s	0.0	11.6	0.0	0.0	9.0	0.0				23.0	0.0	30.1
Prop In Lane	0.00		1.00	0.00		1.00				1.00		0.82
Lane Grp Cap(c), veh/h	0	1396		0	1396					994	0	910
V/C Ratio(X)	0.00	0.74		0.00	0.60					0.81	0.00	0.93
Avail Cap(c_a), veh/h	0	1396		0	1396					1025	0	938
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	21.3	0.0	0.0	20.4	0.0				11.7	0.0	13.3
Incr Delay (d2), s/veh	0.0	3.5	0.0	0.0	1.9	0.0				4.8	0.0	15.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.5	0.0	0.0	3.4	0.0				7.7	0.0	11.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	24.8	0.0	0.0	22.3	0.0				16.4	0.0	28.5
LnGrp LOS	A	C		A	C					B	A	C
Approach Vol, veh/h		1031	A		839	A					1650	
Approach Delay, s/veh		24.8			22.3						22.6	
Approach LOS		C			C						C	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		23.0		40.9		23.0						
Change Period (Y+Rc), s		5.8		5.8		5.8						
Max Green Setting (Gmax), s		17.2		36.2		17.2						
Max Q Clear Time (g_c+I1), s		13.6		32.1		11.0						
Green Ext Time (p_c), s		2.4		3.0		3.3						

Intersection Summary		
HCM 6th Ctrl Delay		23.2
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

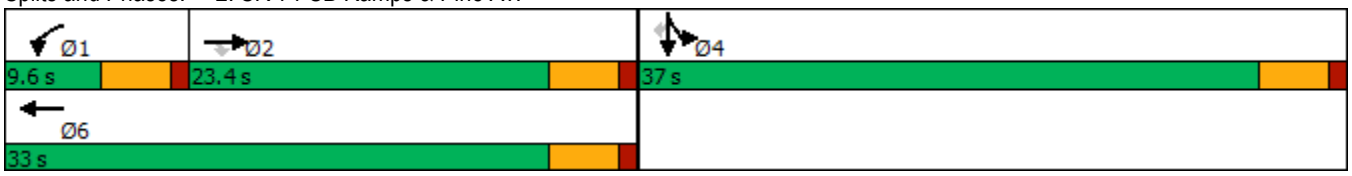
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

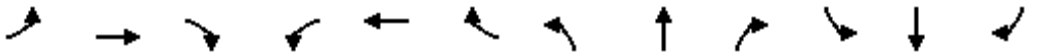
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	311	41	6	105	7	1000
Future Volume (vph)	311	41	6	105	7	1000
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	21.7	21.7	9.6	21.7	35.7	35.7
Total Split (s)	23.4	23.4	9.6	33.0	37.0	37.0
Total Split (%)	33.4%	33.4%	13.7%	47.1%	52.9%	52.9%
Yellow Time (s)	3.7	3.7	3.6	3.7	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7	4.6	4.7	4.7	4.7
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Max	Max

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 59.2
Natural Cycle: 70
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: SR-71 SB Ramps & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	311	41	6	105	0	0	0	0	13	7	1000
Future Volume (veh/h)	0	311	41	6	105	0	0	0	0	13	7	1000
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	327	19	6	111	0				14	7	796
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	416	352	14	1096	0				661	331	869
Arrive On Green	0.00	0.22	0.22	0.01	0.30	0.00				0.54	0.54	0.54
Sat Flow, veh/h	0	1900	1610	1810	3705	0				1226	613	1610
Grp Volume(v), veh/h	0	327	19	6	111	0				21	0	796
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1805	0				1839	0	1610
Q Serve(g_s), s	0.0	9.7	0.6	0.2	1.3	0.0				0.3	0.0	27.0
Cycle Q Clear(g_c), s	0.0	9.7	0.6	0.2	1.3	0.0				0.3	0.0	27.0
Prop In Lane	0.00		1.00	1.00		0.00				0.67		1.00
Lane Grp Cap(c), veh/h	0	416	352	14	1096	0				992	0	869
V/C Ratio(X)	0.00	0.79	0.05	0.42	0.10	0.00				0.02	0.00	0.92
Avail Cap(c_a), veh/h	0	593	503	151	1706	0				992	0	869
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	22.1	18.5	29.6	15.0	0.0				6.4	0.0	12.6
Incr Delay (d2), s/veh	0.0	5.7	0.1	7.0	0.1	0.0				0.0	0.0	15.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.5	0.2	0.1	0.5	0.0				0.1	0.0	11.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	27.8	18.6	36.6	15.0	0.0				6.5	0.0	28.5
LnGrp LOS	A	C	B	D	B	A				A	A	C
Approach Vol, veh/h		346			117						817	
Approach Delay, s/veh		27.3			16.1						27.9	
Approach LOS		C			B						C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	5.1	17.8		37.0		22.9
Change Period (Y+Rc), s	4.6	* 4.7		* 4.7		* 4.7
Max Green Setting (Gmax), s	5.0	* 19		* 32		* 28
Max Q Clear Time (g_c+I1), s	2.2	11.7		29.0		3.3
Green Ext Time (p_c), s	0.0	1.4		1.3		0.8

Intersection Summary	
HCM 6th Ctrl Delay	26.7
HCM 6th LOS	C

Notes

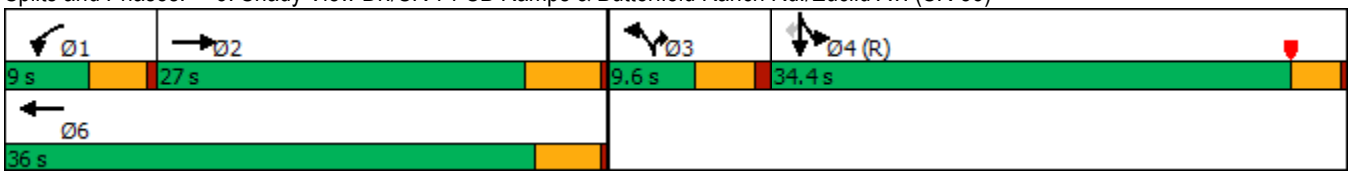
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

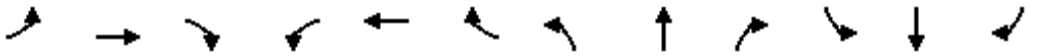
Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	841	121	253	17	147	629	66	67
Future Volume (vph)	841	121	253	17	147	629	66	67
Turn Type	NA	Prot	NA	Prot	Prot	Split	NA	Perm
Protected Phases	2	1	6	3	3	4	4	
Permitted Phases								4
Detector Phase	2	1	6	3	3	4	4	4
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	9.0	26.5	9.5	9.5	32.5	32.5	32.5
Total Split (s)	27.0	9.0	36.0	9.6	9.6	34.4	34.4	34.4
Total Split (%)	33.8%	11.3%	45.0%	12.0%	12.0%	43.0%	43.0%	43.0%
Yellow Time (s)	4.5	3.5	4.0	3.5	3.5	3.0	3.0	3.0
All-Red Time (s)	0.5	0.5	0.5	1.0	1.0	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	4.5	4.5	4.5	3.5	3.5	3.5
Lead/Lag	Lag	Lead		Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	None	None	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 4:SBTL, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 3: Shady View Dr./SR-71 SB Ramps & Butterfield Ranch Rd./Euclid Av. (SR-83)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	841	58	121	253	0	17	0	147	629	66	67
Future Volume (veh/h)	0	841	58	121	253	0	17	0	147	629	66	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	1900	0	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	876	48	126	264	0	18	0	94	704	0	43
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	947	52	113	1389		0	0	0	1842	0	820
Arrive On Green	0.00	0.27	0.27	0.02	0.13	0.00	0.00	0.00	0.00	0.51	0.00	0.51
Sat Flow, veh/h	0	3575	191	1810	3705	0		0		3619	0	1610
Grp Volume(v), veh/h	0	454	470	126	264	0		0.0		704	0	43
Grp Sat Flow(s),veh/h/ln	0	1805	1866	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	19.6	19.6	5.0	5.2	0.0				9.5	0.0	1.1
Cycle Q Clear(g_c), s	0.0	19.6	19.6	5.0	5.2	0.0				9.5	0.0	1.1
Prop In Lane	0.00		0.10	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	491	508	113	1389					1842	0	820
V/C Ratio(X)	0.00	0.92	0.92	1.11	0.19					0.38	0.00	0.05
Avail Cap(c_a), veh/h	0	496	513	113	1421					1842	0	820
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.86	0.86	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	28.3	28.3	39.2	23.8	0.0				12.0	0.0	9.9
Incr Delay (d2), s/veh	0.0	22.8	22.2	112.4	0.0	0.0				0.6	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	10.8	11.1	5.7	2.1	0.0				3.4	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	51.1	50.6	151.6	23.8	0.0				12.6	0.0	10.0
LnGrp LOS	A	D	D	F	C					B	A	B
Approach Vol, veh/h		924			390	A					747	
Approach Delay, s/veh		50.8			65.1						12.4	
Approach LOS		D			E						B	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.0	26.8		44.2		35.8						
Change Period (Y+Rc), s	4.0	5.0		3.5		* 5						
Max Green Setting (Gmax), s	5.0	22.0		30.9		* 32						
Max Q Clear Time (g_c+I1), s	7.0	21.6		11.5		7.2						
Green Ext Time (p_c), s	0.0	0.2		2.6		1.2						

Intersection Summary												
HCM 6th Ctrl Delay			39.6									
HCM 6th LOS			D									

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

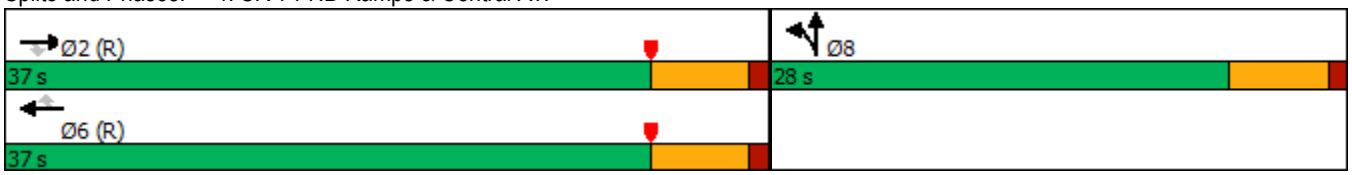
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	1383	425	909	671	141	0
Future Volume (vph)	1383	425	909	671	141	0
Turn Type	NA	Perm	NA	Perm	Split	NA
Protected Phases	2		6		8	8
Permitted Phases		2		6		
Detector Phase	2	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	15.8	15.8	22.8	22.8
Total Split (s)	37.0	37.0	37.0	37.0	28.0	28.0
Total Split (%)	56.9%	56.9%	56.9%	56.9%	43.1%	43.1%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 63.9 (98%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 4: SR-71 NB Ramps & Central Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰	↕				
Traffic Volume (veh/h)	0	1383	425	0	909	671	141	0	343	0	0	0
Future Volume (veh/h)	0	1383	425	0	909	671	141	0	343	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	0	1426	0	0	937	0	145	0	173			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	0	3466		0	3466		277	0	247			
Arrive On Green	0.00	0.67	0.00	0.00	0.67	0.00	0.15	0.00	0.15			
Sat Flow, veh/h	0	5358	1610	0	5358	1610	1810	0	1610			
Grp Volume(v), veh/h	0	1426	0	0	937	0	145	0	173			
Grp Sat Flow(s),veh/h/ln	0	1729	1610	0	1729	1610	1810	0	1610			
Q Serve(g_s), s	0.0	8.2	0.0	0.0	4.8	0.0	4.8	0.0	6.6			
Cycle Q Clear(g_c), s	0.0	8.2	0.0	0.0	4.8	0.0	4.8	0.0	6.6			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3466		0	3466		277	0	247			
V/C Ratio(X)	0.00	0.41		0.00	0.27		0.52	0.00	0.70			
Avail Cap(c_a), veh/h	0	3466		0	3466		618	0	550			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.50	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	4.9	0.0	0.0	4.4	0.0	25.3	0.0	26.1			
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.2	0.0	1.5	0.0	3.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	1.6	0.0	0.0	1.0	0.0	2.0	0.0	2.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	5.1	0.0	0.0	4.6	0.0	26.8	0.0	29.7			
LnGrp LOS	A	A		A	A		C	A	C			
Approach Vol, veh/h		1426	A		937	A		318				
Approach Delay, s/veh		5.1			4.6			28.4				
Approach LOS		A			A			C				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		49.2				49.2		15.8				
Change Period (Y+Rc), s		5.8				5.8		5.8				
Max Green Setting (Gmax), s		31.2				31.2		22.2				
Max Q Clear Time (g_c+I1), s		10.2				6.8		8.6				
Green Ext Time (p_c), s		9.9				6.4		1.1				

Intersection Summary	
HCM 6th Ctrl Delay	7.7
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	324	0	111	3	0	0
Future Vol, veh/h	324	0	111	3	0	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	377	0	129	3	0	0
Number of Lanes	2	0	1	1	0	0

Approach	EB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left		EB
Conflicting Lanes Left	0	2
Conflicting Approach Right	NB	
Conflicting Lanes Right	2	0
HCM Control Delay	8.8	9.2
HCM LOS	A	A

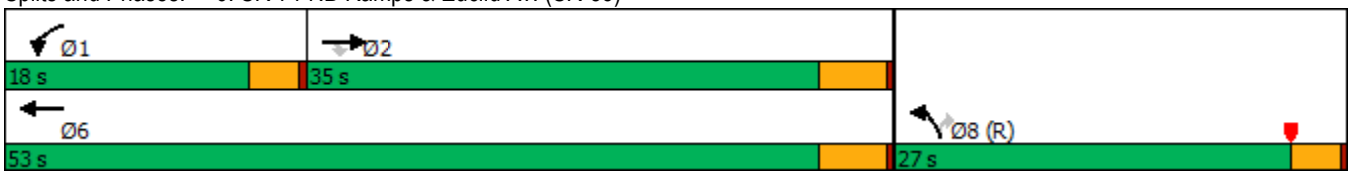
Lane	NBLn1	NBLn2	EBLn1	EBLn2
Vol Left, %	100%	95%	100%	100%
Vol Thru, %	0%	5%	0%	0%
Vol Right, %	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	57	57	162	162
LT Vol	57	54	162	162
Through Vol	0	3	0	0
RT Vol	0	0	0	0
Lane Flow Rate	66	67	188	188
Geometry Grp	7	7	7	7
Degree of Util (X)	0.107	0.108	0.282	0.193
Departure Headway (Hd)	5.837	5.81	5.392	3.688
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	615	617	669	976
Service Time	3.565	3.539	3.107	1.402
HCM Lane V/C Ratio	0.107	0.109	0.281	0.193
HCM Control Delay	9.3	9.2	10.2	7.3
HCM Lane LOS	A	A	B	A
HCM 95th-tile Q	0.4	0.4	1.2	0.7

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	806	150	355	938	127	907
Future Volume (vph)	806	150	355	938	127	907
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	32.5	32.5	8.5	9.5	8.5	8.5
Total Split (s)	35.0	35.0	18.0	53.0	27.0	27.0
Total Split (%)	43.8%	43.8%	22.5%	66.3%	33.8%	33.8%
Yellow Time (s)	4.0	4.0	3.0	4.0	3.0	3.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	3.5	4.5	3.5	3.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 9.5 (12%), Referenced to phase 4: and 8:NBL, Start of Yellow
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 6: SR-71 NB Ramps & Euclid Av. (SR-83)





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	806	150	355	938	127	907
Future Volume (veh/h)	806	150	355	938	127	907
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	937	0	413	1091	148	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1100		328	1912	1300	
Arrive On Green	0.41	0.00	0.18	0.53	0.37	0.00
Sat Flow, veh/h	3705	1610	1810	3705	3510	1610
Grp Volume(v), veh/h	937	0	413	1091	148	0
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805	1755	1610
Q Serve(g_s), s	18.9	0.0	14.5	16.3	2.2	0.0
Cycle Q Clear(g_c), s	18.9	0.0	14.5	16.3	2.2	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1100		328	1912	1300	
V/C Ratio(X)	0.85		1.26	0.57	0.11	
Avail Cap(c_a), veh/h	1376		328	2189	1300	
HCM Platoon Ratio	1.33	1.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.44	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.1	0.0	32.8	12.7	16.6	0.0
Incr Delay (d2), s/veh	1.9	0.0	139.0	0.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	0.0	18.4	5.1	0.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.0	0.0	171.8	12.9	16.7	0.0
LnGrp LOS	C		F	B	B	
Approach Vol, veh/h	937	A		1504	148	A
Approach Delay, s/veh	24.0			56.6	16.7	
Approach LOS	C			E	B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	18.0	28.9				46.9	33.1
Change Period (Y+Rc), s	3.5	4.5				4.5	3.5
Max Green Setting (Gmax), s	14.5	30.5				48.5	23.5
Max Q Clear Time (g_c+I1), s	16.5	20.9				18.3	4.2
Green Ext Time (p_c), s	0.0	3.5				7.8	0.2

Intersection Summary		
HCM 6th Ctrl Delay		42.5
HCM 6th LOS		D

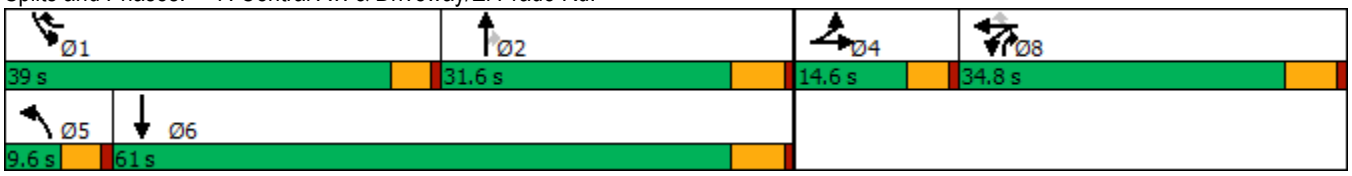
Notes

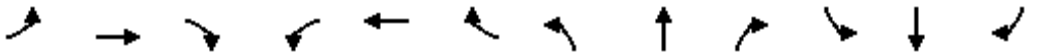
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	17	12	556	3	462	6	752	778	613	847
Future Volume (vph)	17	12	556	3	462	6	752	778	613	847
Turn Type	Split	NA	Split	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	4	4	8	8	1	5	2	8	1	6
Permitted Phases					8			2		
Detector Phase	4	4	8	8	1	5	2	8	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	34.8	34.8	9.6	9.6	27.8	34.8	9.6	24.8
Total Split (s)	14.6	14.6	34.8	34.8	39.0	9.6	31.6	34.8	39.0	61.0
Total Split (%)	12.2%	12.2%	29.0%	29.0%	32.5%	8.0%	26.3%	29.0%	32.5%	50.8%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	5.8	4.6	4.6	5.8	5.8	4.6	5.8
Lead/Lag					Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	None	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 112.5
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Central Av. & Driveway/El Prado Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	12	8	556	3	462	6	752	778	613	847	18
Future Volume (veh/h)	17	12	8	556	3	462	6	752	778	613	847	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	18	12	3	581	0	226	6	783	470	639	882	17
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	94	80	20	659	0	788	12	805	667	508	2687	52
Arrive On Green	0.06	0.06	0.06	0.20	0.00	0.20	0.01	0.24	0.24	0.31	0.54	0.54
Sat Flow, veh/h	1619	1390	347	3238	0	1523	1619	3420	1516	1619	4963	96
Grp Volume(v), veh/h	18	0	15	581	0	226	6	783	470	639	582	317
Grp Sat Flow(s),veh/h/ln	1619	0	1737	1619	0	1523	1619	1710	1516	1619	1638	1783
Q Serve(g_s), s	1.2	0.0	0.9	19.1	0.0	9.2	0.4	24.9	25.8	34.4	10.9	10.9
Cycle Q Clear(g_c), s	1.2	0.0	0.9	19.1	0.0	9.2	0.4	24.9	25.8	34.4	10.9	10.9
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	94	0	100	659	0	788	12	805	667	508	1774	965
V/C Ratio(X)	0.19	0.00	0.15	0.88	0.00	0.29	0.49	0.97	0.70	1.26	0.33	0.33
Avail Cap(c_a), veh/h	148	0	158	856	0	881	74	805	667	508	1774	965
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.2	0.0	49.1	42.4	0.0	15.0	54.2	41.6	24.5	37.6	14.0	14.0
Incr Delay (d2), s/veh	0.4	0.0	0.3	7.3	0.0	0.1	10.6	25.8	6.2	131.4	0.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.4	7.9	0.0	0.0	0.2	12.9	13.8	31.4	3.8	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.6	0.0	49.3	49.7	0.0	15.1	64.8	67.4	30.7	169.0	14.5	14.9
LnGrp LOS	D	A	D	D	A	B	E	E	C	F	B	B
Approach Vol, veh/h		33			807			1259			1538	
Approach Delay, s/veh		49.5			40.0			53.7			78.8	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	39.0	31.6		10.9	5.4	65.2		28.1				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		5.8				
Max Green Setting (Gmax), s	34.4	25.8		10.0	5.0	55.2		29.0				
Max Q Clear Time (g_c+I1), s	36.4	27.8		3.2	2.4	12.9		21.1				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	6.1		1.1				

Intersection Summary			
HCM 6th Ctrl Delay		61.2	
HCM 6th LOS		E	

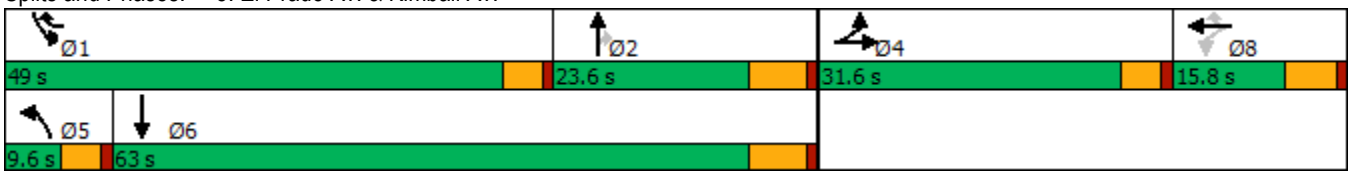
Notes

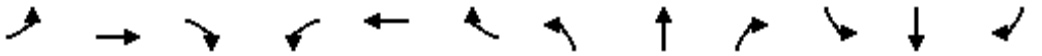
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	33	14	25	5	712	4	253	33	840	316
Future Volume (vph)	33	14	25	5	712	4	253	33	840	316
Turn Type	Split	NA	Perm	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	4	4		8	1	5	2		1	6
Permitted Phases			8		8			2		
Detector Phase	4	4	8	8	1	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	15.8	15.8	9.6	9.6	16.2	16.2	9.6	24.2
Total Split (s)	31.6	31.6	15.8	15.8	49.0	9.6	23.6	23.6	49.0	63.0
Total Split (%)	26.3%	26.3%	13.2%	13.2%	40.8%	8.0%	19.7%	19.7%	40.8%	52.5%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		5.8	4.6	4.6	6.2	6.2	4.6	6.2
Lead/Lag					Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 94.2
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: El Prado Av. & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	14	5	25	5	712	4	253	33	840	316	11
Future Volume (veh/h)	33	14	5	25	5	712	4	253	33	840	316	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	35	15	3	27	5	312	4	269	31	894	336	11
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	124	112	22	145	27	823	9	311	263	714	2054	67
Arrive On Green	0.08	0.08	0.08	0.10	0.10	0.10	0.01	0.17	0.17	0.44	0.61	0.61
Sat Flow, veh/h	1619	1456	291	1457	270	1518	1619	1800	1525	1619	3377	110
Grp Volume(v), veh/h	35	0	18	32	0	312	4	269	31	894	170	177
Grp Sat Flow(s),veh/h/ln	1619	0	1748	1727	0	1518	1619	1800	1525	1619	1710	1777
Q Serve(g_s), s	2.1	0.0	1.0	1.7	0.0	10.0	0.2	14.6	1.7	44.4	4.3	4.4
Cycle Q Clear(g_c), s	2.1	0.0	1.0	1.7	0.0	10.0	0.2	14.6	1.7	44.4	4.3	4.4
Prop In Lane	1.00		0.17	0.84		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	124	0	134	171	0	823	9	311	263	714	1040	1081
V/C Ratio(X)	0.28	0.00	0.13	0.19	0.00	0.38	0.47	0.87	0.12	1.25	0.16	0.16
Avail Cap(c_a), veh/h	434	0	468	171	0	823	80	311	263	714	1040	1081
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	0.0	43.4	41.6	0.0	13.4	50.0	40.5	35.2	28.2	8.6	8.6
Incr Delay (d2), s/veh	1.2	0.0	0.4	0.5	0.0	0.3	14.2	26.0	0.9	125.1	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.4	0.7	0.0	3.7	0.1	8.4	0.7	39.9	1.4	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.1	0.0	43.8	42.2	0.0	13.7	64.2	66.5	36.1	153.3	8.9	8.9
LnGrp LOS	D	A	D	D	A	B	E	E	D	F	A	A
Approach Vol, veh/h		53			344			304			1241	
Approach Delay, s/veh		44.7			16.3			63.4			112.9	
Approach LOS		D			B			E			F	

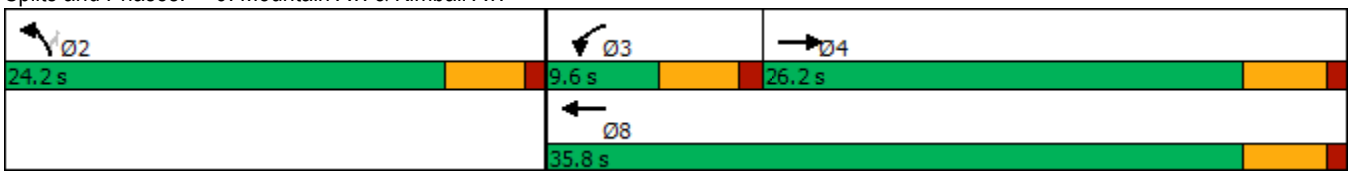
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	49.0	23.6		12.3	5.1	67.5		15.8				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		5.8				
Max Green Setting (Gmax), s	44.4	17.4		27.0	5.0	56.8		10.0				
Max Q Clear Time (g_c+I1), s	46.4	16.6		4.1	2.2	6.4		12.0				
Green Ext Time (p_c), s	0.0	0.1		0.1	0.0	1.8		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		86.2	
HCM 6th LOS		F	

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	907	22	651	103	80
Future Volume (vph)	907	22	651	103	80
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	4	3	8	2	
Permitted Phases					2
Detector Phase	4	3	8	2	2
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	24.7	9.6	14.7	23.6	23.6
Total Split (s)	26.2	9.6	35.8	24.2	24.2
Total Split (%)	43.7%	16.0%	59.7%	40.3%	40.3%
Yellow Time (s)	3.7	3.6	3.7	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.6	4.7	4.6	4.6
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	Max	None	Max	None	None

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 52.3
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 9: Mountain Av. & Kimball Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	907	39	22	651	103	80
Future Volume (veh/h)	907	39	22	651	103	80
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1800	1800	1700	1800	1700	1800
Adj Flow Rate, veh/h	975	40	24	700	111	67
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1696	70	46	2147	299	281
Arrive On Green	0.51	0.51	0.03	0.63	0.18	0.18
Sat Flow, veh/h	3438	137	1619	3510	1619	1525
Grp Volume(v), veh/h	498	517	24	700	111	67
Grp Sat Flow(s),veh/h/ln	1710	1775	1619	1710	1619	1525
Q Serve(g_s), s	10.0	10.0	0.7	4.7	3.0	1.9
Cycle Q Clear(g_c), s	10.0	10.0	0.7	4.7	3.0	1.9
Prop In Lane		0.08	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	866	899	46	2147	299	281
V/C Ratio(X)	0.57	0.57	0.52	0.33	0.37	0.24
Avail Cap(c_a), veh/h	866	899	163	2147	641	604
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.5	8.5	23.7	4.3	17.7	17.2
Incr Delay (d2), s/veh	2.8	2.7	3.4	0.4	0.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	3.0	0.3	0.8	1.0	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.3	11.2	27.1	4.7	18.5	17.7
LnGrp LOS	B	B	C	A	B	B
Approach Vol, veh/h	1015			724	178	
Approach Delay, s/veh	11.2			5.5	18.2	
Approach LOS	B			A	B	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		13.7	6.0	29.8		35.8
Change Period (Y+Rc), s		4.6	4.6	* 4.7		* 4.7
Max Green Setting (Gmax), s		19.6	5.0	* 22		* 31
Max Q Clear Time (g_c+I1), s		5.0	2.7	12.0		6.7
Green Ext Time (p_c), s		0.4	0.0	4.0		4.5

Intersection Summary	
HCM 6th Ctrl Delay	9.7
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	6.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	14	57	8	27	46	5
Future Vol, veh/h	14	57	8	27	46	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	17	68	10	32	55	6

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	142	26	0	0	42	0
Stage 1	26	-	-	-	-	-
Stage 2	116	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	856	1056	-	-	1580	-
Stage 1	1002	-	-	-	-	-
Stage 2	914	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	826	1056	-	-	1580	-
Mov Cap-2 Maneuver	793	-	-	-	-	-
Stage 1	1002	-	-	-	-	-
Stage 2	882	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	6.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	793	1056	1580	-
HCM Lane V/C Ratio	-	-	0.021	0.064	0.035	-
HCM Control Delay (s)	-	-	9.6	8.6	7.4	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.2	0.1	-

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	13	6	115	13	33	475
Future Vol, veh/h	13	6	115	13	33	475
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	15	7	134	15	38	552

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	770	142	0	0	149	0
Stage 1	142	-	-	-	-	-
Stage 2	628	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	372	911	-	-	1445	-
Stage 1	890	-	-	-	-	-
Stage 2	536	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	358	911	-	-	1445	-
Mov Cap-2 Maneuver	358	-	-	-	-	-
Stage 1	890	-	-	-	-	-
Stage 2	516	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.6	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	443	1445	-
HCM Lane V/C Ratio	-	-	0.05	0.027	-
HCM Control Delay (s)	-	-	13.6	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

Intersection	
Intersection Delay, s/veh	13.5
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1	0	103	488	1
Future Vol, veh/h	0	1	0	103	488	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	1	0	112	530	1
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	8.3	8.3	14.6
HCM LOS	A	A	B

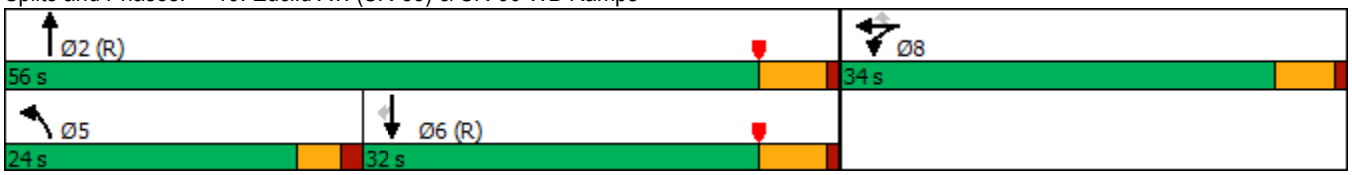
Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	100%
Vol Thru, %	100%	0%	0%
Vol Right, %	0%	100%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1	103	489
LT Vol	0	0	488
Through Vol	1	0	0
RT Vol	0	103	1
Lane Flow Rate	1	112	532
Geometry Grp	1	1	1
Degree of Util (X)	0.002	0.141	0.634
Departure Headway (Hd)	5.295	4.544	4.296
Convergence, Y/N	Yes	Yes	Yes
Cap	678	794	829
Service Time	3.306	2.545	2.378
HCM Lane V/C Ratio	0.001	0.141	0.642
HCM Control Delay	8.3	8.3	14.6
HCM Lane LOS	A	A	B
HCM 95th-tile Q	0	0.5	4.6

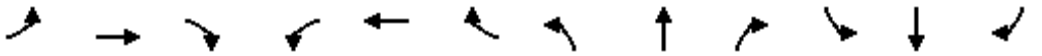
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	580	6	392	233	1034	967	473
Future Volume (vph)	580	6	392	233	1034	967	473
Turn Type	Split	NA	Perm	Prot	NA	NA	Perm
Protected Phases	8	8		5	2	6	
Permitted Phases			8				6
Detector Phase	8	8	8	5	2	6	6
Switch Phase							
Minimum Initial (s)	6.0	6.0	6.0	5.0	10.0	10.0	10.0
Minimum Split (s)	11.0	11.0	11.0	9.5	22.5	22.5	22.5
Total Split (s)	34.0	34.0	34.0	24.0	56.0	32.0	32.0
Total Split (%)	37.8%	37.8%	37.8%	26.7%	62.2%	35.6%	35.6%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.5	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.5	5.5	5.5	5.5
Lead/Lag				Lead		Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 63 (70%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 19: Euclid Av. (SR-83) & SR-60 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	580	6	392	233	1034	0	0	967	473
Future Volume (veh/h)	0	0	0	580	6	392	233	1034	0	0	967	473
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				677	0	153	243	1077	0	0	1007	288
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				786	0	349	275	2405	0	0	1677	748
Arrive On Green				0.22	0.00	0.22	0.30	1.00	0.00	0.00	0.46	0.46
Sat Flow, veh/h				3619	0	1608	1810	3705	0	0	3705	1610
Grp Volume(v), veh/h				677	0	153	243	1077	0	0	1007	288
Grp Sat Flow(s),veh/h/ln				1810	0	1608	1810	1805	0	0	1805	1610
Q Serve(g_s), s				16.2	0.0	7.4	11.5	0.0	0.0	0.0	18.6	10.5
Cycle Q Clear(g_c), s				16.2	0.0	7.4	11.5	0.0	0.0	0.0	18.6	10.5
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				786	0	349	275	2405	0	0	1677	748
V/C Ratio(X)				0.86	0.00	0.44	0.88	0.45	0.00	0.00	0.60	0.39
Avail Cap(c_a), veh/h				1166	0	518	392	2405	0	0	1677	748
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.60	0.60	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				33.9	0.0	30.5	30.6	0.0	0.0	0.0	17.9	15.7
Incr Delay (d2), s/veh				3.1	0.0	0.3	7.9	0.4	0.0	0.0	1.6	1.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.0	0.0	2.7	4.6	0.1	0.0	0.0	7.4	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				37.0	0.0	30.8	38.5	0.4	0.0	0.0	19.5	17.2
LnGrp LOS				D	A	C	D	A	A	A	B	B
Approach Vol, veh/h					830			1320			1295	
Approach Delay, s/veh					35.9			7.4			19.0	
Approach LOS					D			A			B	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	65.5		18.2	47.3		24.5						
Change Period (Y+Rc), s	5.5		4.5	5.5		5.0						
Max Green Setting (Gmax), s	50.5		19.5	26.5		29.0						
Max Q Clear Time (g_c+I1), s	2.0		13.5	20.6		18.2						
Green Ext Time (p_c), s	14.1		0.2	4.2		1.3						

Intersection Summary		
HCM 6th Ctrl Delay	18.6	
HCM 6th LOS	B	

Notes

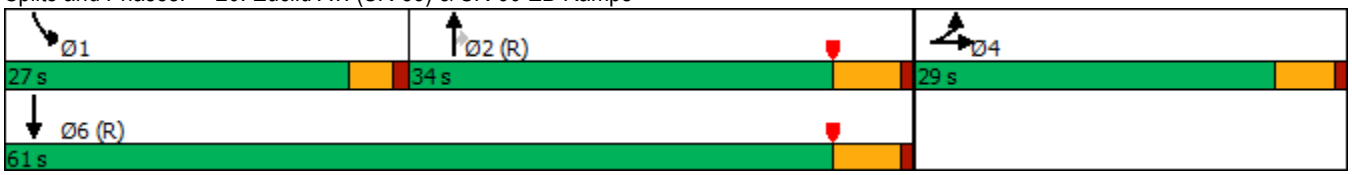
User approved volume balancing among the lanes for turning movement.

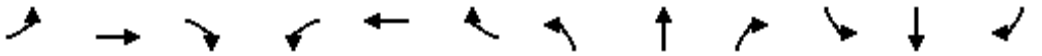
Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	400	3	868	551	361	1187
Future Volume (vph)	400	3	868	551	361	1187
Turn Type	Split	NA	NA	Perm	Prot	NA
Protected Phases	4	4	2		1	6
Permitted Phases				2		
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	6.0	6.0	10.0	10.0	5.0	10.0
Minimum Split (s)	11.0	11.0	22.5	22.5	9.0	22.5
Total Split (s)	29.0	29.0	34.0	34.0	27.0	61.0
Total Split (%)	32.2%	32.2%	37.8%	37.8%	30.0%	67.8%
Yellow Time (s)	4.0	4.0	4.5	4.5	3.0	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.5	5.5	4.0	5.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Min	C-Min	None	C-Min

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 20: Euclid Av. (SR-83) & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	400	3	306	0	0	0	0	868	551	361	1187	0
Future Volume (veh/h)	400	3	306	0	0	0	0	868	551	361	1187	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	328	115	245				0	886	368	368	1211	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	428	128	273				0	1387	604	395	2334	0
Arrive On Green	0.24	0.24	0.24				0.00	0.38	0.38	0.44	1.00	0.00
Sat Flow, veh/h	1810	541	1152				0	3705	1572	1810	3705	0
Grp Volume(v), veh/h	328	0	360				0	886	368	368	1211	0
Grp Sat Flow(s),veh/h/ln	1810	0	1693				0	1805	1572	1810	1805	0
Q Serve(g_s), s	15.2	0.0	18.6				0.0	18.0	16.9	17.4	0.0	0.0
Cycle Q Clear(g_c), s	15.2	0.0	18.6				0.0	18.0	16.9	17.4	0.0	0.0
Prop In Lane	1.00		0.68				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	428	0	401				0	1387	604	395	2334	0
V/C Ratio(X)	0.77	0.00	0.90				0.00	0.64	0.61	0.93	0.52	0.00
Avail Cap(c_a), veh/h	483	0	451				0	1387	604	462	2334	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.71	0.71	0.62	0.62	0.00
Uniform Delay (d), s/veh	32.0	0.0	33.3				0.0	22.6	22.3	24.8	0.0	0.0
Incr Delay (d2), s/veh	5.4	0.0	17.9				0.0	1.6	3.2	16.0	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	0.0	9.1				0.0	7.4	6.3	6.8	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.4	0.0	51.2				0.0	24.2	25.5	40.8	0.5	0.0
LnGrp LOS	D	A	D				A	C	C	D	A	A
Approach Vol, veh/h		688						1254			1579	
Approach Delay, s/veh		44.6						24.6			9.9	
Approach LOS		D						C			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	23.6	40.1		26.3		63.7
Change Period (Y+Rc), s	4.0	5.5		5.0		5.5
Max Green Setting (Gmax), s	23.0	28.5		24.0		55.5
Max Q Clear Time (g_c+I1), s	19.4	20.0		20.6		2.0
Green Ext Time (p_c), s	0.2	5.5		0.7		17.4

Intersection Summary	
HCM 6th Ctrl Delay	21.9
HCM 6th LOS	C

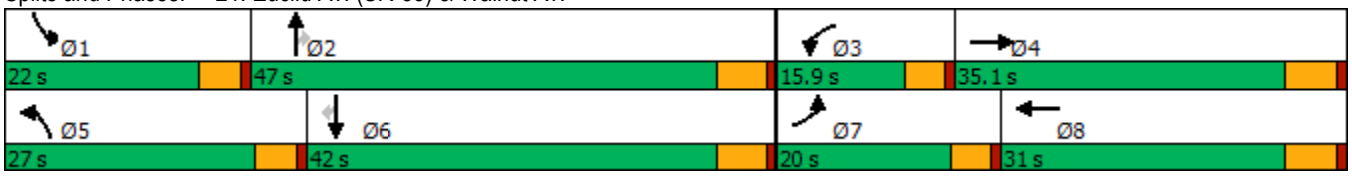
Notes

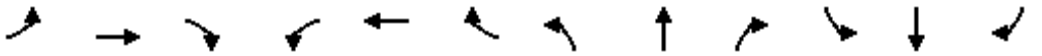
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	103	356	67	356	178	1158	70	253	1061	141
Future Volume (vph)	103	356	67	356	178	1158	70	253	1061	141
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.8	9.6	29.8	9.6	27.4	27.4	9.6	29.4	29.4
Total Split (s)	20.0	35.1	15.9	31.0	27.0	47.0	47.0	22.0	42.0	42.0
Total Split (%)	16.7%	29.3%	13.3%	25.8%	22.5%	39.2%	39.2%	18.3%	35.0%	35.0%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 108.6
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 21: Euclid Av. (SR-83) & Walnut Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	356	133	67	356	135	178	1158	70	253	1061	141
Future Volume (veh/h)	103	356	133	67	356	135	178	1158	70	253	1061	141
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1600	1800	1800
Adj Flow Rate, veh/h	110	379	118	71	379	118	189	1232	47	269	1129	96
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	135	553	170	89	479	147	219	2038	632	330	1922	596
Arrive On Green	0.08	0.22	0.22	0.05	0.19	0.19	0.14	0.41	0.41	0.11	0.39	0.39
Sat Flow, veh/h	1619	2567	788	1619	2561	786	1619	4914	1523	2956	4914	1524
Grp Volume(v), veh/h	110	251	246	71	251	246	189	1232	47	269	1129	96
Grp Sat Flow(s),veh/h/ln	1619	1710	1645	1619	1710	1637	1619	1638	1523	1478	1638	1524
Q Serve(g_s), s	6.7	13.5	13.9	4.3	14.0	14.4	11.5	19.6	1.9	8.9	18.2	4.1
Cycle Q Clear(g_c), s	6.7	13.5	13.9	4.3	14.0	14.4	11.5	19.6	1.9	8.9	18.2	4.1
Prop In Lane	1.00		0.48	1.00		0.48	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	135	368	354	89	320	306	219	2038	632	330	1922	596
V/C Ratio(X)	0.82	0.68	0.69	0.80	0.79	0.80	0.86	0.60	0.07	0.82	0.59	0.16
Avail Cap(c_a), veh/h	249	500	480	182	430	411	362	2038	632	513	1922	596
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.2	36.2	36.3	46.9	38.9	39.0	42.5	22.9	17.7	43.5	24.1	19.8
Incr Delay (d2), s/veh	4.5	2.2	2.7	6.1	6.7	8.1	5.8	1.3	0.2	2.9	1.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	5.6	5.6	1.8	6.2	6.2	4.8	7.4	0.7	3.3	6.9	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.7	38.4	39.0	53.0	45.6	47.1	48.3	24.3	17.9	46.5	25.4	20.4
LnGrp LOS	D	D	D	D	D	D	D	C	B	D	C	C
Approach Vol, veh/h		607			568			1468			1494	
Approach Delay, s/veh		40.7			47.2			27.1			28.9	
Approach LOS		D			D			C			C	

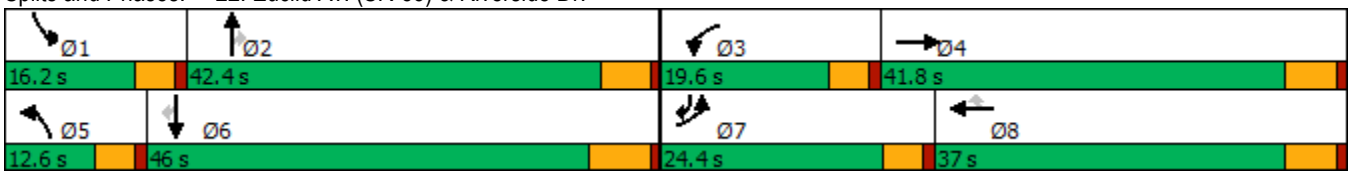
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.8	47.0	10.1	27.4	18.2	44.6	13.0	24.5
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	17.4	41.6	11.3	29.3	22.4	36.6	15.4	25.2
Max Q Clear Time (g_c+I1), s	10.9	21.6	6.3	15.9	13.5	20.2	8.7	16.4
Green Ext Time (p_c), s	0.3	8.6	0.0	2.2	0.2	7.2	0.1	1.8

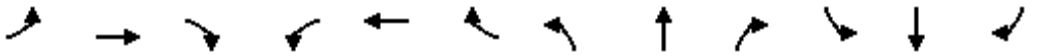
Intersection Summary	
HCM 6th Ctrl Delay	32.5
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	145	440	178	393	62	63	975	230	134	880	185
Future Volume (vph)	145	440	178	393	62	63	975	230	134	880	185
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4	3	8		5	2		1	6	7
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	25.8	9.6	31.8	31.8	9.6	30.4	30.4	9.6	34.5	9.6
Total Split (s)	24.4	41.8	19.6	37.0	37.0	12.6	42.4	42.4	16.2	46.0	24.4
Total Split (%)	20.3%	34.8%	16.3%	30.8%	30.8%	10.5%	35.3%	35.3%	13.5%	38.3%	20.3%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 119.7
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Euclid Av. (SR-83) & Riverside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	440	71	178	393	62	63	975	230	134	880	185
Future Volume (veh/h)	145	440	71	178	393	62	63	975	230	134	880	185
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	151	458	49	185	409	49	66	1016	186	140	917	102
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	175	475	51	201	1070	477	82	1045	466	155	1199	693
Arrive On Green	0.11	0.30	0.30	0.12	0.31	0.31	0.05	0.31	0.31	0.10	0.35	0.35
Sat Flow, veh/h	1619	1598	171	1619	3420	1524	1619	3420	1525	1619	3420	1506
Grp Volume(v), veh/h	151	0	507	185	409	49	66	1016	186	140	917	102
Grp Sat Flow(s),veh/h/ln	1619	0	1769	1619	1710	1524	1619	1710	1525	1619	1710	1506
Q Serve(g_s), s	11.1	0.0	34.2	13.7	11.3	2.8	4.9	35.5	11.7	10.4	28.8	4.8
Cycle Q Clear(g_c), s	11.1	0.0	34.2	13.7	11.3	2.8	4.9	35.5	11.7	10.4	28.8	4.8
Prop In Lane	1.00		0.10	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	175	0	526	201	1070	477	82	1045	466	155	1199	693
V/C Ratio(X)	0.86	0.00	0.96	0.92	0.38	0.10	0.80	0.97	0.40	0.90	0.76	0.15
Avail Cap(c_a), veh/h	265	0	526	201	1070	477	107	1045	466	155	1199	693
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.1	0.0	41.9	52.5	32.5	29.5	56.9	41.5	33.3	54.2	34.9	19.0
Incr Delay (d2), s/veh	11.3	0.0	30.2	41.7	0.2	0.1	21.4	21.9	2.5	44.1	4.7	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	0.0	18.7	7.7	4.6	1.0	2.4	17.2	4.5	6.1	12.4	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.4	0.0	72.1	94.2	32.7	29.6	78.2	63.5	35.8	98.3	39.6	19.5
LnGrp LOS	E	A	E	F	C	C	E	E	D	F	D	B
Approach Vol, veh/h		658			643			1268			1159	
Approach Delay, s/veh		70.3			50.2			60.2			44.9	
Approach LOS		E			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.2	43.5	19.6	41.8	10.7	49.0	17.7	43.7
Change Period (Y+Rc), s	4.6	* 6.5	4.6	5.8	4.6	6.5	4.6	5.8
Max Green Setting (Gmax), s	11.6	* 37	15.0	36.0	8.0	39.5	19.8	31.2
Max Q Clear Time (g_c+I1), s	12.4	37.5	15.7	36.2	6.9	30.8	13.1	13.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	4.1	0.1	2.4

Intersection Summary	
HCM 6th Ctrl Delay	55.5
HCM 6th LOS	E

Notes

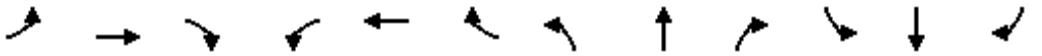
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	93	273	47	75	108	39	1163	219	24	999	69
Future Volume (vph)	93	273	47	75	108	39	1163	219	24	999	69
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	28.8	28.8	28.8	33.8	33.8	9.6	24.2	24.2	9.6	31.5	31.5
Total Split (s)	44.0	44.0	44.0	44.0	44.0	12.4	65.0	65.0	11.0	63.6	63.6
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	10.3%	54.2%	54.2%	9.2%	53.0%	53.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	3.6	4.2	4.2	3.6	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8		5.8	4.6	5.2	5.2	4.6	6.5	6.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 103
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: Euclid Av. (SR-83) & Chino Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	273	47	75	108	9	39	1163	219	24	999	69
Future Volume (veh/h)	93	273	47	75	108	9	39	1163	219	24	999	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	100	294	28	81	116	6	42	1251	164	26	1074	41
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	268	490	415	119	153	7	53	1875	819	40	1847	807
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.55	0.55	0.02	0.54	0.54
Sat Flow, veh/h	1218	1800	1525	269	562	25	1619	3420	1494	1619	3420	1494
Grp Volume(v), veh/h	100	294	28	203	0	0	42	1251	164	26	1074	41
Grp Sat Flow(s),veh/h/ln	1218	1800	1525	856	0	0	1619	1710	1494	1619	1710	1494
Q Serve(g_s), s	0.0	15.5	1.5	11.5	0.0	0.0	2.8	28.4	6.1	1.7	23.0	1.4
Cycle Q Clear(g_c), s	13.4	15.5	1.5	27.0	0.0	0.0	2.8	28.4	6.1	1.7	23.0	1.4
Prop In Lane	1.00		1.00	0.40		0.03	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	268	490	415	279	0	0	53	1875	819	40	1847	807
V/C Ratio(X)	0.37	0.60	0.07	0.73	0.00	0.00	0.79	0.67	0.20	0.64	0.58	0.05
Avail Cap(c_a), veh/h	363	630	534	389	0	0	116	1875	819	95	1847	807
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.8	34.6	29.5	41.5	0.0	0.0	52.4	17.6	12.5	52.7	16.8	11.9
Incr Delay (d2), s/veh	0.9	1.2	0.1	4.2	0.0	0.0	9.1	1.9	0.5	6.2	1.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	6.7	0.5	5.5	0.0	0.0	1.2	10.1	1.9	0.7	8.1	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.6	35.7	29.5	45.7	0.0	0.0	61.5	19.5	13.1	58.9	18.2	12.0
LnGrp LOS	C	D	C	D	A	A	E	B	B	E	B	B
Approach Vol, veh/h		422			203			1457			1141	
Approach Delay, s/veh		35.1			45.7			20.0			18.9	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	66.3		35.5	8.2	65.4		35.5				
Change Period (Y+Rc), s	4.6	* 6.5		5.8	4.6	6.5		5.8				
Max Green Setting (Gmax), s	6.4	* 60		38.2	7.8	57.1		38.2				
Max Q Clear Time (g_c+I1), s	3.7	30.4		17.5	4.8	25.0		29.0				
Green Ext Time (p_c), s	0.0	10.1		1.9	0.0	7.9		0.7				

Intersection Summary		
HCM 6th Ctrl Delay		23.2
HCM 6th LOS		C

Notes

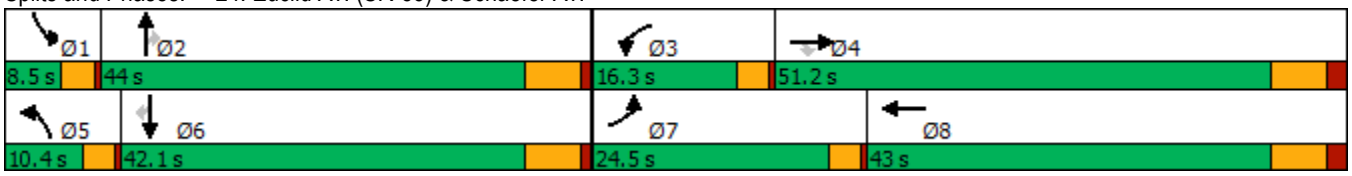
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

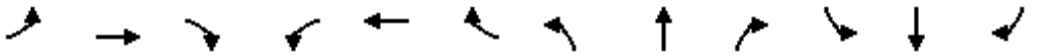
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	280	276	178	76	64	82	1090	80	28	1016	111
Future Volume (vph)	280	276	178	76	64	82	1090	80	28	1016	111
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.5	42.0	42.0	13.5	43.0	8.5	33.0	33.0	8.5	28.0	28.0
Total Split (s)	24.5	51.2	51.2	16.3	43.0	10.4	44.0	44.0	8.5	42.1	42.1
Total Split (%)	20.4%	42.7%	42.7%	13.6%	35.8%	8.7%	36.7%	36.7%	7.1%	35.1%	35.1%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	7.0	7.0	3.5	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 94.3
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Euclid Av. (SR-83) & Schaefer Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	280	276	178	76	64	25	82	1090	80	28	1016	111
Future Volume (veh/h)	280	276	178	76	64	25	82	1090	80	28	1016	111
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	283	279	139	77	65	20	83	1101	63	28	1026	82
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	322	350	296	172	135	41	103	1382	617	48	1265	564
Arrive On Green	0.20	0.19	0.19	0.11	0.10	0.10	0.06	0.40	0.40	0.03	0.37	0.37
Sat Flow, veh/h	1619	1800	1525	1619	1321	406	1619	3420	1525	1619	3420	1525
Grp Volume(v), veh/h	283	279	139	77	0	85	83	1101	63	28	1026	82
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1619	0	1727	1619	1710	1525	1619	1710	1525
Q Serve(g_s), s	12.8	11.1	6.1	3.4	0.0	3.5	3.8	21.3	1.9	1.3	20.3	2.7
Cycle Q Clear(g_c), s	12.8	11.1	6.1	3.4	0.0	3.5	3.8	21.3	1.9	1.3	20.3	2.7
Prop In Lane	1.00		1.00	1.00		0.24	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	322	350	296	172	0	176	103	1382	617	48	1265	564
V/C Ratio(X)	0.88	0.80	0.47	0.45	0.00	0.48	0.81	0.80	0.10	0.59	0.81	0.15
Avail Cap(c_a), veh/h	452	1057	896	275	0	826	148	1727	770	108	1640	732
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.3	28.9	26.9	31.6	0.0	31.9	34.8	19.7	13.9	36.1	21.3	15.8
Incr Delay (d2), s/veh	10.7	3.1	0.9	0.7	0.0	1.5	12.0	2.1	0.1	4.2	2.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	4.7	2.1	1.3	0.0	1.4	1.7	7.3	0.6	0.5	7.1	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.0	32.1	27.7	32.2	0.0	33.4	46.8	21.8	14.0	40.3	23.8	15.9
LnGrp LOS	D	C	C	C	A	C	D	C	B	D	C	B
Approach Vol, veh/h		701			162			1247			1136	
Approach Delay, s/veh		34.4			32.9			23.1			23.6	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.7	36.4	11.5	21.6	8.3	33.8	18.5	14.7
Change Period (Y+Rc), s	3.5	6.0	3.5	7.0	3.5	6.0	3.5	7.0
Max Green Setting (Gmax), s	5.0	38.0	12.8	44.2	6.9	36.1	21.0	36.0
Max Q Clear Time (g_c+I1), s	3.3	23.3	5.4	13.1	5.8	22.3	14.8	5.5
Green Ext Time (p_c), s	0.0	6.1	0.0	1.5	0.0	5.5	0.2	0.3

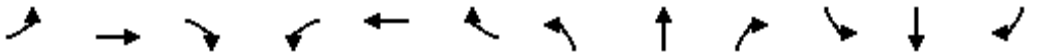
Intersection Summary	
HCM 6th Ctrl Delay	26.2
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	265	463	279	39	252	139	1042	68	82	1092	175
Future Volume (vph)	265	463	279	39	252	139	1042	68	82	1092	175
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	46.0	46.0	46.0	49.0	49.0	8.5	29.0	29.0	8.5	40.0	40.0
Total Split (s)	52.0	52.0	52.0	52.0	52.0	17.0	54.8	54.8	13.2	51.0	51.0
Total Split (%)	43.3%	43.3%	43.3%	43.3%	43.3%	14.2%	45.7%	45.7%	11.0%	42.5%	42.5%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 114.3
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 25: Euclid Av. (SR-83) & Edison Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	265	463	279	39	252	34	139	1042	68	82	1092	175
Future Volume (veh/h)	265	463	279	39	252	34	139	1042	68	82	1092	175
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	279	487	212	41	265	30	146	1097	64	86	1149	152
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	336	695	589	175	612	69	170	1391	619	106	1255	560
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.11	0.41	0.41	0.07	0.37	0.37
Sat Flow, veh/h	1040	1800	1525	717	1586	179	1619	3420	1522	1619	3420	1525
Grp Volume(v), veh/h	279	487	212	41	0	295	146	1097	64	86	1149	152
Grp Sat Flow(s),veh/h/ln	1040	1800	1525	717	0	1765	1619	1710	1522	1619	1710	1525
Q Serve(g_s), s	30.7	26.5	11.5	5.9	0.0	14.3	10.3	32.6	3.0	6.1	37.3	8.2
Cycle Q Clear(g_c), s	45.0	26.5	11.5	32.5	0.0	14.3	10.3	32.6	3.0	6.1	37.3	8.2
Prop In Lane	1.00		1.00	1.00		0.10	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	336	695	589	175	0	682	170	1391	619	106	1255	560
V/C Ratio(X)	0.83	0.70	0.36	0.23	0.00	0.43	0.86	0.79	0.10	0.81	0.92	0.27
Avail Cap(c_a), veh/h	336	695	589	175	0	682	188	1433	637	135	1321	589
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.2	30.1	25.5	43.7	0.0	26.3	51.3	30.2	21.4	53.7	35.1	25.9
Incr Delay (d2), s/veh	16.1	3.1	0.4	0.7	0.0	0.4	26.7	3.0	0.1	19.9	9.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	11.5	4.1	1.1	0.0	5.9	5.3	12.9	1.0	3.0	16.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.3	33.2	25.8	44.4	0.0	26.8	78.0	33.2	21.5	73.6	45.0	26.2
LnGrp LOS	E	C	C	D	A	C	E	C	C	E	D	C
Approach Vol, veh/h		978			336			1307			1387	
Approach Delay, s/veh		39.1			28.9			37.6			44.7	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.1	53.4		52.0	15.7	48.8		52.0				
Change Period (Y+Rc), s	3.5	6.0		7.0	3.5	6.0		7.0				
Max Green Setting (Gmax), s	9.7	48.8		45.0	13.5	45.0		45.0				
Max Q Clear Time (g_c+I1), s	8.1	34.6		47.0	12.3	39.3		34.5				
Green Ext Time (p_c), s	0.0	6.0		0.0	0.0	3.4		1.3				

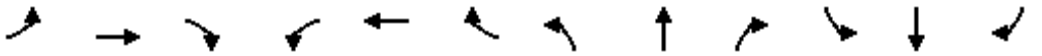
Intersection Summary												
HCM 6th Ctrl Delay			39.7									
HCM 6th LOS			D									

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	37	157	202	8	21	102	1076	17	44	1239	62
Future Volume (vph)	37	157	202	8	21	102	1076	17	44	1239	62
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	46.8	46.8	46.8	46.8	46.8	8.5	30.7	30.7	8.5	37.7	37.7
Total Split (s)	46.8	46.8	46.8	46.8	46.8	14.0	63.2	63.2	10.0	59.2	59.2
Total Split (%)	39.0%	39.0%	39.0%	39.0%	39.0%	11.7%	52.7%	52.7%	8.3%	49.3%	49.3%
Yellow Time (s)	4.3	4.3	4.3	4.3	4.3	3.0	4.7	4.7	3.0	4.7	4.7
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.8	4.8	3.5	5.7	5.7	3.5	5.7	5.7
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 83.5
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 26: Euclid Av. (SR-83) & Eucalyptus Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	157	202	8	21	9	102	1076	17	44	1239	62
Future Volume (veh/h)	37	157	202	8	21	9	102	1076	17	44	1239	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	42	176	111	9	24	7	115	1209	18	49	1392	58
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	287	258	219	171	192	56	144	1987	886	75	1841	804
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.09	0.58	0.58	0.05	0.54	0.54
Sat Flow, veh/h	1322	1800	1525	1048	1339	391	1619	3420	1525	1619	3420	1494
Grp Volume(v), veh/h	42	176	111	9	0	31	115	1209	18	49	1392	58
Grp Sat Flow(s),veh/h/ln	1322	1800	1525	1048	0	1730	1619	1710	1525	1619	1710	1494
Q Serve(g_s), s	1.7	5.7	4.1	0.5	0.0	1.0	4.2	14.0	0.3	1.8	19.3	1.1
Cycle Q Clear(g_c), s	2.7	5.7	4.1	6.2	0.0	1.0	4.2	14.0	0.3	1.8	19.3	1.1
Prop In Lane	1.00		1.00	1.00		0.23	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	287	258	219	171	0	248	144	1987	886	75	1841	804
V/C Ratio(X)	0.15	0.68	0.51	0.05	0.00	0.13	0.80	0.61	0.02	0.65	0.76	0.07
Avail Cap(c_a), veh/h	1008	1240	1051	742	0	1191	279	3225	1438	173	3000	1311
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.0	24.8	24.1	27.7	0.0	22.8	27.3	8.3	5.4	28.6	11.0	6.8
Incr Delay (d2), s/veh	0.2	2.4	1.4	0.1	0.0	0.2	7.4	0.3	0.0	7.0	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.3	1.4	0.1	0.0	0.4	1.7	3.0	0.1	0.8	4.6	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.1	27.2	25.5	27.8	0.0	23.0	34.7	8.6	5.4	35.6	11.6	6.8
LnGrp LOS	C	C	C	C	A	C	C	A	A	D	B	A
Approach Vol, veh/h		329			40			1342			1499	
Approach Delay, s/veh		26.2			24.0			10.8			12.2	
Approach LOS		C			C			B			B	

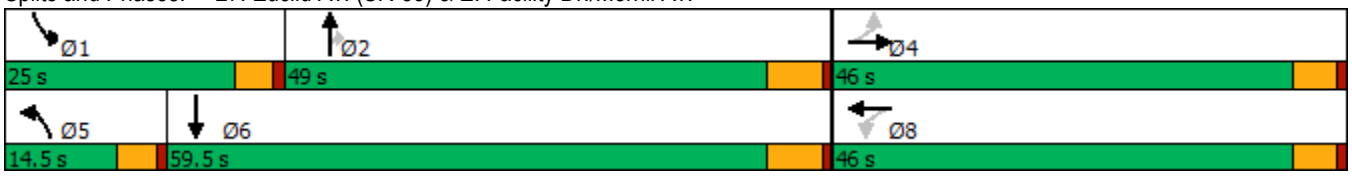
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.3	41.1		13.5	8.9	38.5		13.5				
Change Period (Y+Rc), s	3.5	5.7		4.8	3.5	5.7		4.8				
Max Green Setting (Gmax), s	6.5	57.5		42.0	10.5	53.5		42.0				
Max Q Clear Time (g_c+I1), s	3.8	16.0		7.7	6.2	21.3		8.2				
Green Ext Time (p_c), s	0.0	9.7		1.1	0.1	11.5		0.1				

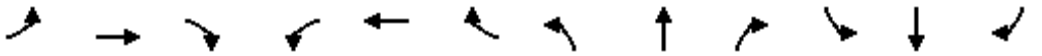
Intersection Summary			
HCM 6th Ctrl Delay		13.2	
HCM 6th LOS		B	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	11	29	183	2	4	1136	224	251	1155
Future Volume (vph)	11	29	183	2	4	1136	224	251	1155
Turn Type	Perm	NA	Perm	NA	Prot	NA	Perm	Prot	NA
Protected Phases		4		8	5	2		1	6
Permitted Phases	4		8				2		
Detector Phase	4	4	8	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	15.0	15.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	10.0	10.0	46.0	46.0	14.5	28.0	28.0	14.5	28.0
Total Split (s)	46.0	46.0	46.0	46.0	14.5	49.0	49.0	25.0	59.5
Total Split (%)	38.3%	38.3%	38.3%	38.3%	12.1%	40.8%	40.8%	20.8%	49.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.5	5.0	5.0	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	4.5	6.0	6.0	4.5	6.0
Lead/Lag					Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 109.2
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 27: Euclid Av. (SR-83) & E. Facility Dr./Merrill Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	29	12	183	2	136	4	1136	224	251	1155	1
Future Volume (veh/h)	11	29	12	183	2	136	4	1136	224	251	1155	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	12	32	12	201	2	139	4	1248	181	276	1269	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	106	262	89	277	2	153	17	1380	615	304	1985	0
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.01	0.40	0.40	0.19	0.58	0.00
Sat Flow, veh/h	246	1027	347	864	9	598	1619	3420	1525	1619	3510	0
Grp Volume(v), veh/h	56	0	0	342	0	0	4	1248	181	276	1269	0
Grp Sat Flow(s),veh/h/ln	1621	0	0	1470	0	0	1619	1710	1525	1619	1710	0
Q Serve(g_s), s	0.0	0.0	0.0	20.2	0.0	0.0	0.2	34.5	8.1	16.8	24.9	0.0
Cycle Q Clear(g_c), s	2.5	0.0	0.0	22.7	0.0	0.0	0.2	34.5	8.1	16.8	24.9	0.0
Prop In Lane	0.21		0.21	0.59		0.41	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	457	0	0	432	0	0	17	1380	615	304	1985	0
V/C Ratio(X)	0.12	0.00	0.00	0.79	0.00	0.00	0.24	0.90	0.29	0.91	0.64	0.00
Avail Cap(c_a), veh/h	699	0	0	650	0	0	161	1460	651	329	1985	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	28.9	0.0	0.0	36.2	0.0	0.0	49.4	28.2	20.3	40.1	14.1	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.0	0.0	0.0	2.6	8.1	0.3	25.6	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	7.8	0.0	0.0	0.1	14.0	2.6	8.4	8.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.9	0.0	0.0	38.1	0.0	0.0	52.0	36.3	20.6	65.7	14.8	0.0
LnGrp LOS	C	A	A	D	A	A	D	D	C	E	B	A
Approach Vol, veh/h		56			342			1433			1545	
Approach Delay, s/veh		28.9			38.1			34.3			23.9	
Approach LOS		C			D			C			C	

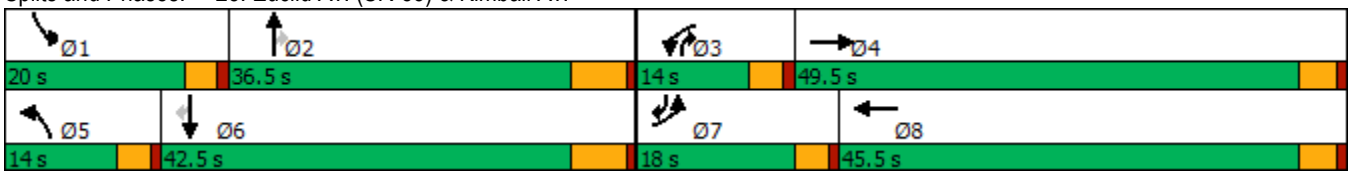
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.4	46.6		30.7	5.6	64.5		30.7				
Change Period (Y+Rc), s	4.5	6.0		5.0	4.5	6.0		5.0				
Max Green Setting (Gmax), s	20.5	43.0		41.0	10.0	53.5		41.0				
Max Q Clear Time (g_c+I1), s	18.8	36.5		4.5	2.2	26.9		24.7				
Green Ext Time (p_c), s	0.1	4.1		0.2	0.0	9.2		1.1				

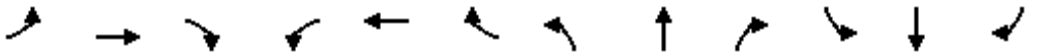
Intersection Summary												
HCM 6th Ctrl Delay			29.9									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	344	743	58	305	60	802	36	412	725	228
Future Volume (vph)	344	743	58	305	60	802	36	412	725	228
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	3	8	5	2	3	1	6	7
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	7
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	14.0	49.5	14.0	45.5	14.0	36.0	14.0	9.0	33.0	14.0
Total Split (s)	18.0	49.5	14.0	45.5	14.0	36.5	14.0	20.0	42.5	18.0
Total Split (%)	15.0%	41.3%	11.7%	37.9%	11.7%	30.4%	11.7%	16.7%	35.4%	15.0%
Yellow Time (s)	3.0	3.5	3.0	3.5	3.0	5.0	3.0	3.0	5.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.5	4.0	4.5	4.0	6.0	4.0	4.0	6.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	None	Min	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 104.5
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 28: Euclid Av. (SR-83) & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	344	743	45	58	305	165	60	802	36	412	725	228
Future Volume (veh/h)	344	743	45	58	305	165	60	802	36	412	725	228
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1600	1800	1800	1700	1800	1800	1700	1800	1800	1600	1800	1800
Adj Flow Rate, veh/h	355	766	43	60	314	132	62	827	22	425	747	137
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	410	945	53	134	546	225	136	950	550	478	1217	754
Arrive On Green	0.14	0.29	0.29	0.08	0.23	0.23	0.08	0.28	0.28	0.16	0.36	0.36
Sat Flow, veh/h	2956	3292	185	1619	2362	973	1619	3420	1525	2956	3420	1524
Grp Volume(v), veh/h	355	398	411	60	225	221	62	827	22	425	747	137
Grp Sat Flow(s),veh/h/ln	1478	1710	1767	1619	1710	1625	1619	1710	1525	1478	1710	1524
Q Serve(g_s), s	11.4	21.0	21.0	3.4	11.3	11.7	3.5	22.3	0.9	13.6	17.5	4.8
Cycle Q Clear(g_c), s	11.4	21.0	21.0	3.4	11.3	11.7	3.5	22.3	0.9	13.6	17.5	4.8
Prop In Lane	1.00		0.10	1.00		0.60	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	410	491	507	134	395	375	136	950	550	478	1217	754
V/C Ratio(X)	0.87	0.81	0.81	0.45	0.57	0.59	0.46	0.87	0.04	0.89	0.61	0.18
Avail Cap(c_a), veh/h	427	793	820	167	723	687	167	1076	606	488	1287	785
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.9	32.1	32.1	42.4	33.0	33.2	42.3	33.4	20.1	39.8	25.7	13.6
Incr Delay (d2), s/veh	15.5	3.3	3.2	0.9	0.5	0.5	0.9	7.2	0.0	17.1	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	8.6	8.8	1.4	4.5	4.4	1.4	9.4	0.3	5.7	6.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.4	35.4	35.3	43.3	33.5	33.7	43.2	40.6	20.2	56.9	26.5	13.7
LnGrp LOS	E	D	D	D	C	C	D	D	C	E	C	B
Approach Vol, veh/h		1164			506			911			1309	
Approach Delay, s/veh		41.8			34.8			40.3			35.1	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.7	32.9	12.0	32.3	12.1	40.5	17.5	26.9
Change Period (Y+Rc), s	4.0	6.0	4.0	4.5	4.0	6.0	4.0	4.5
Max Green Setting (Gmax), s	16.0	30.5	10.0	45.0	10.0	36.5	14.0	41.0
Max Q Clear Time (g_c+I1), s	15.6	24.3	5.4	23.0	5.5	19.5	13.4	13.7
Green Ext Time (p_c), s	0.0	2.6	0.0	4.6	0.0	4.5	0.1	1.5

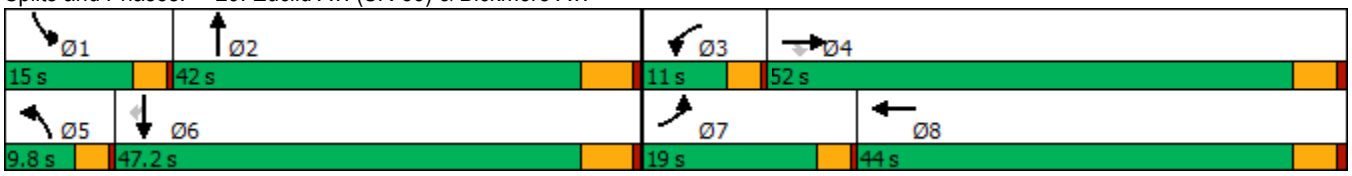
Intersection Summary	
HCM 6th Ctrl Delay	38.3
HCM 6th LOS	D

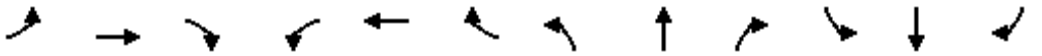
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	115	96	55	35	21	22	617	75	631	134
Future Volume (vph)	115	96	55	35	21	22	617	75	631	134
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.5	44.0	44.0	8.5	44.0	8.5	26.5	8.5	30.5	30.5
Total Split (s)	19.0	52.0	52.0	11.0	44.0	9.8	42.0	15.0	47.2	47.2
Total Split (%)	15.8%	43.3%	43.3%	9.2%	36.7%	8.2%	35.0%	12.5%	39.3%	39.3%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	3.0	4.5	3.0	4.5	4.5
All-Red Time (s)	0.5	1.0	1.0	0.5	1.0	0.5	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.5	3.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 66
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 29: Euclid Av. (SR-83) & Bickmore Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	96	55	35	21	49	22	617	73	75	631	134
Future Volume (veh/h)	115	96	55	35	21	49	22	617	73	75	631	134
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	125	104	45	38	23	25	24	671	56	82	686	114
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	156	300	254	69	89	97	47	933	78	120	1151	514
Arrive On Green	0.10	0.17	0.17	0.04	0.11	0.11	0.03	0.29	0.29	0.07	0.34	0.34
Sat Flow, veh/h	1619	1800	1525	1619	789	857	1619	3196	266	1619	3420	1525
Grp Volume(v), veh/h	125	104	45	38	0	48	24	359	368	82	686	114
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1619	0	1646	1619	1710	1752	1619	1710	1525
Q Serve(g_s), s	3.1	2.1	1.0	0.9	0.0	1.1	0.6	7.7	7.8	2.0	6.9	2.2
Cycle Q Clear(g_c), s	3.1	2.1	1.0	0.9	0.0	1.1	0.6	7.7	7.8	2.0	6.9	2.2
Prop In Lane	1.00		1.00	1.00		0.52	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	156	300	254	69	0	186	47	499	511	120	1151	514
V/C Ratio(X)	0.80	0.35	0.18	0.55	0.00	0.26	0.51	0.72	0.72	0.69	0.60	0.22
Avail Cap(c_a), veh/h	609	2053	1740	295	0	1558	248	1515	1552	452	3462	1544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.2	15.2	14.7	19.3	0.0	16.7	19.7	13.1	13.1	18.6	11.3	9.8
Incr Delay (d2), s/veh	3.6	0.3	0.1	2.5	0.0	0.3	3.1	0.7	0.7	2.6	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.7	0.3	0.3	0.0	0.4	0.2	2.0	2.0	0.7	1.6	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.8	15.4	14.9	21.8	0.0	17.0	22.8	13.8	13.8	21.2	11.5	9.9
LnGrp LOS	C	B	B	C	A	B	C	B	B	C	B	A
Approach Vol, veh/h		274			86			751			882	
Approach Delay, s/veh		18.3			19.1			14.1			12.2	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	17.5	5.3	11.9	4.7	19.4	7.5	9.7
Change Period (Y+Rc), s	3.5	5.5	3.5	5.0	3.5	5.5	3.5	5.0
Max Green Setting (Gmax), s	11.5	36.5	7.5	47.0	6.3	41.7	15.5	39.0
Max Q Clear Time (g_c+I1), s	4.0	9.8	2.9	4.1	2.6	8.9	5.1	3.1
Green Ext Time (p_c), s	0.0	2.3	0.0	0.4	0.0	2.8	0.1	0.1

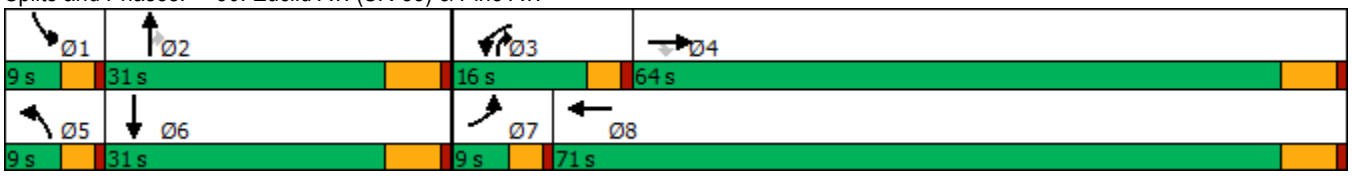
Intersection Summary	
HCM 6th Ctrl Delay	14.0
HCM 6th LOS	B

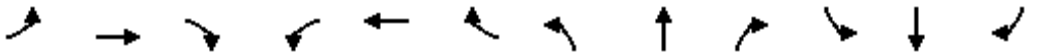
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	5	424	90	517	64	54	661	1061	50	689
Future Volume (vph)	5	424	90	517	64	54	661	1061	50	689
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4		3	8	5	2	3	1	6
Permitted Phases			4					2		
Detector Phase	7	4	4	3	8	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.0	43.0	43.0	9.0	45.0	9.0	11.0	9.0	9.0	29.0
Total Split (s)	9.0	64.0	64.0	16.0	71.0	9.0	31.0	16.0	9.0	31.0
Total Split (%)	7.5%	53.3%	53.3%	13.3%	59.2%	7.5%	25.8%	13.3%	7.5%	25.8%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0	3.0	3.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	4.0	6.0	4.0	4.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 87.8
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 30: Euclid Av. (SR-83) & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	424	90	517	64	22	54	661	1061	50	689	4
Future Volume (veh/h)	5	424	90	517	64	22	54	661	1061	50	689	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1600	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	5	433	0	528	65	20	55	674	666	51	703	4
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	11	527		415	563	173	69	999	660	66	1013	6
Arrive On Green	0.01	0.29	0.00	0.14	0.43	0.43	0.04	0.29	0.29	0.04	0.29	0.29
Sat Flow, veh/h	1619	1800	1525	2956	1321	406	1619	3420	1525	1619	3487	20
Grp Volume(v), veh/h	5	433	0	528	0	85	55	674	666	51	345	362
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1478	0	1727	1619	1710	1525	1619	1710	1796
Q Serve(g_s), s	0.3	19.2	0.0	12.0	0.0	2.5	2.9	14.9	25.0	2.7	15.3	15.3
Cycle Q Clear(g_c), s	0.3	19.2	0.0	12.0	0.0	2.5	2.9	14.9	25.0	2.7	15.3	15.3
Prop In Lane	1.00		1.00	1.00		0.24	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	11	527		415	0	737	69	999	660	66	497	522
V/C Ratio(X)	0.47	0.82		1.27	0.00	0.12	0.80	0.67	1.01	0.77	0.69	0.69
Avail Cap(c_a), veh/h	95	1220		415	0	1312	95	999	660	95	500	525
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.4	28.2	0.0	36.8	0.0	14.8	40.6	26.7	24.3	40.6	27.0	27.0
Incr Delay (d2), s/veh	11.6	4.6	0.0	140.9	0.0	0.1	19.4	1.5	37.5	12.2	3.4	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	8.2	0.0	12.1	0.0	0.9	1.4	5.6	18.2	1.2	6.0	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.0	32.7	0.0	177.6	0.0	14.9	60.0	28.2	61.8	52.8	30.4	30.3
LnGrp LOS	D	C		F	A	B	E	C	F	D	C	C
Approach Vol, veh/h		438	A		613			1395			758	
Approach Delay, s/veh		33.0			155.1			45.5			31.9	
Approach LOS		C			F			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.5	31.0	16.0	31.1	7.6	30.9	4.6	42.5
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	5.0	25.0	12.0	58.0	5.0	25.0	5.0	65.0
Max Q Clear Time (g_c+I1), s	4.7	27.0	14.0	21.2	4.9	17.3	2.3	4.5
Green Ext Time (p_c), s	0.0	0.0	0.0	3.9	0.0	1.5	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	61.5
HCM 6th LOS	E

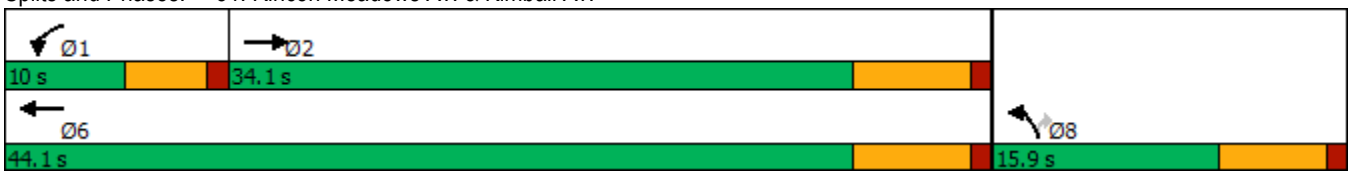
Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	1006	29	452	40	18
Future Volume (vph)	1006	29	452	40	18
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	2	1	6	8	
Permitted Phases					8
Detector Phase	2	1	6	8	8
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	26.2	9.6	16.2	15.8	15.8
Total Split (s)	34.1	10.0	44.1	15.9	15.9
Total Split (%)	56.8%	16.7%	73.5%	26.5%	26.5%
Yellow Time (s)	5.2	3.6	5.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	6.2	5.8	5.8
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	None	None	None	Max	Max

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 48.2
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 31: Rincon Meadows Av. & Kimball Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1006	73	29	452	40	18
Future Volume (veh/h)	1006	73	29	452	40	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1800	1800	1700	1800	1700	1800
Adj Flow Rate, veh/h	1048	68	30	471	42	9
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1372	89	55	988	334	314
Arrive On Green	0.42	0.42	0.03	0.55	0.21	0.21
Sat Flow, veh/h	3350	212	1619	1800	1619	1525
Grp Volume(v), veh/h	550	566	30	471	42	9
Grp Sat Flow(s),veh/h/ln	1710	1762	1619	1800	1619	1525
Q Serve(g_s), s	13.4	13.4	0.9	7.8	1.0	0.2
Cycle Q Clear(g_c), s	13.4	13.4	0.9	7.8	1.0	0.2
Prop In Lane		0.12	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	720	742	55	988	334	314
V/C Ratio(X)	0.76	0.76	0.54	0.48	0.13	0.03
Avail Cap(c_a), veh/h	974	1003	178	1392	334	314
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.1	12.1	23.3	6.8	15.9	15.5
Incr Delay (d2), s/veh	2.5	2.4	8.0	0.4	0.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	3.9	0.4	1.6	0.4	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	14.6	14.5	31.3	7.1	16.6	15.7
LnGrp LOS	B	B	C	A	B	B
Approach Vol, veh/h	1116			501	51	
Approach Delay, s/veh	14.6			8.6	16.5	
Approach LOS	B			A	B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	6.3	26.8				33.1	15.9
Change Period (Y+Rc), s	4.6	6.2				6.2	5.8
Max Green Setting (Gmax), s	5.4	27.9				37.9	10.1
Max Q Clear Time (g_c+I1), s	2.9	15.4				9.8	3.0
Green Ext Time (p_c), s	0.0	5.2				2.6	0.0

Intersection Summary			
HCM 6th Ctrl Delay		12.8	
HCM 6th LOS		B	

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	903	43	370	89	20
Future Volume (vph)	903	43	370	89	20
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	2	1	6	8	
Permitted Phases					8
Detector Phase	2	1	6	8	8
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	23.2	9.6	16.2	15.4	15.4
Total Split (s)	33.4	11.0	44.4	15.6	15.6
Total Split (%)	55.7%	18.3%	74.0%	26.0%	26.0%
Yellow Time (s)	5.2	3.6	5.2	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	6.2	5.4	5.4
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	None	None	None	Max	Max

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 46.8
Natural Cycle: 55
Control Type: Actuated-Uncoordinated

Splits and Phases: 33: Mill Creek Av. & Kimball Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	903	117	43	370	89	20
Future Volume (veh/h)	903	117	43	370	89	20
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1800	1800	1700	1800	1700	1800
Adj Flow Rate, veh/h	931	113	44	381	92	8
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1238	150	75	982	344	324
Arrive On Green	0.40	0.40	0.05	0.55	0.21	0.21
Sat Flow, veh/h	3160	373	1619	1800	1619	1525
Grp Volume(v), veh/h	518	526	44	381	92	8
Grp Sat Flow(s),veh/h/ln	1710	1733	1619	1800	1619	1525
Q Serve(g_s), s	12.5	12.5	1.3	5.9	2.3	0.2
Cycle Q Clear(g_c), s	12.5	12.5	1.3	5.9	2.3	0.2
Prop In Lane		0.22	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	690	699	75	982	344	324
V/C Ratio(X)	0.75	0.75	0.59	0.39	0.27	0.02
Avail Cap(c_a), veh/h	970	983	216	1434	344	324
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.3	12.3	22.4	6.3	15.8	14.9
Incr Delay (d2), s/veh	2.1	2.1	2.7	0.3	1.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	3.5	0.5	1.2	0.9	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	14.4	14.3	25.1	6.5	17.7	15.1
LnGrp LOS	B	B	C	A	B	B
Approach Vol, veh/h	1044			425	100	
Approach Delay, s/veh	14.3			8.5	17.4	
Approach LOS	B			A	B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	6.8	25.5				32.4	15.6
Change Period (Y+Rc), s	4.6	6.2				6.2	5.4
Max Green Setting (Gmax), s	6.4	27.2				38.2	10.2
Max Q Clear Time (g_c+I1), s	3.3	14.5				7.9	4.3
Green Ext Time (p_c), s	0.0	4.9				2.1	0.1

Intersection Summary			
HCM 6th Ctrl Delay		12.9	
HCM 6th LOS		B	

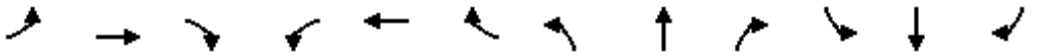
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	37	1452	23	15	519	30	43	25	31	9
Future Volume (vph)	37	1452	23	15	519	30	43	25	31	9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	NA
Protected Phases	7	4		3	8			2		6
Permitted Phases			4			8	2		6	
Detector Phase	7	4	4	3	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	16.2	9.6	23.2	23.2	15.8	15.8	15.2	15.2
Total Split (s)	14.0	87.0	87.0	12.0	85.0	85.0	21.0	21.0	21.0	21.0
Total Split (%)	11.7%	72.5%	72.5%	10.0%	70.8%	70.8%	17.5%	17.5%	17.5%	17.5%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	5.2	4.8	4.8	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	6.2	5.8	5.8	5.2	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 110.5
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 34: Chino Corona Rd. & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	1452	23	15	519	30	43	25	44	31	9	34
Future Volume (veh/h)	37	1452	23	15	519	30	43	25	44	31	9	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	41	1596	0	16	570	25	47	27	39	34	10	23
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	53	2529		28	1304	1105	161	61	88	133	44	102
Arrive On Green	0.03	0.74	0.00	0.02	0.72	0.72	0.09	0.09	0.09	0.09	0.09	0.09
Sat Flow, veh/h	1619	3420	1525	1619	1800	1525	1320	666	961	1281	485	1115
Grp Volume(v), veh/h	41	1596	0	16	570	25	47	0	66	34	0	33
Grp Sat Flow(s),veh/h/ln	1619	1710	1525	1619	1800	1525	1320	0	1627	1281	0	1599
Q Serve(g_s), s	2.7	24.9	0.0	1.1	14.0	0.5	3.7	0.0	4.2	2.8	0.0	2.1
Cycle Q Clear(g_c), s	2.7	24.9	0.0	1.1	14.0	0.5	5.8	0.0	4.2	7.0	0.0	2.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.59	1.00		0.70
Lane Grp Cap(c), veh/h	53	2529		28	1304	1105	161	0	148	133	0	146
V/C Ratio(X)	0.78	0.63		0.56	0.44	0.02	0.29	0.00	0.45	0.25	0.00	0.23
Avail Cap(c_a), veh/h	139	2529		110	1304	1105	224	0	226	202	0	231
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	52.5	7.0	0.0	53.3	6.1	4.2	48.8	0.0	47.0	50.4	0.0	46.1
Incr Delay (d2), s/veh	8.8	1.2	0.0	6.3	1.1	0.0	1.0	0.0	2.1	1.0	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	6.6	0.0	0.5	4.2	0.1	1.2	0.0	1.7	0.9	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.3	8.2	0.0	59.5	7.1	4.3	49.8	0.0	49.1	51.4	0.0	46.9
LnGrp LOS	E	A		E	A	A	D	A	D	D	A	D
Approach Vol, veh/h		1637	A		611			113			67	
Approach Delay, s/veh		9.5			8.4			49.4			49.1	
Approach LOS		A			A			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.8	6.5	87.0		15.8	8.2	85.4				
Change Period (Y+Rc), s		5.8	4.6	6.2		* 5.8	4.6	6.2				
Max Green Setting (Gmax), s		15.2	7.4	80.8		* 16	9.4	78.8				
Max Q Clear Time (g_c+I1), s		7.8	3.1	26.9		9.0	4.7	16.0				
Green Ext Time (p_c), s		0.2	0.0	16.8		0.1	0.0	3.7				

Intersection Summary	
HCM 6th Ctrl Delay	12.2
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	1	0	15	0	0	1	42	1	0
Future Vol, veh/h	0	0	0	1	0	15	0	0	1	42	1	0
Peak Hour Factor	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	2	0	28	0	0	2	78	2	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	0	6.6	6.4	7.6
HCM LOS	-	A	A	A

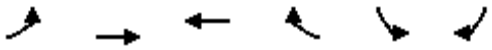
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	6%	98%
Vol Thru, %	0%	100%	0%	2%
Vol Right, %	100%	0%	94%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	1	0	16	43
LT Vol	0	0	1	42
Through Vol	0	0	0	1
RT Vol	1	0	15	0
Lane Flow Rate	2	0	30	80
Geometry Grp	1	1	1	1
Degree of Util (X)	0.002	0	0.029	0.092
Departure Headway (Hd)	3.41	4.065	3.492	4.148
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	1048	0	1020	868
Service Time	1.434	2.109	1.533	2.154
HCM Lane V/C Ratio	0.002	0	0.029	0.092
HCM Control Delay	6.4	7.1	6.6	7.6
HCM Lane LOS	A	N	A	A
HCM 95th-tile Q	0	0	0.1	0.3

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	25	1502	539	114	24
Future Volume (vph)	25	1502	539	114	24
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	7	4	8	6	
Permitted Phases					6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	14.7	14.7
Total Split (s)	15.0	94.0	79.0	26.0	26.0
Total Split (%)	12.5%	78.3%	65.8%	21.7%	21.7%
Yellow Time (s)	3.6	4.8	4.8	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.7	4.7
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 67.9
Natural Cycle: 50
Control Type: Actuated-Uncoordinated

Splits and Phases: 36: Pine Av. & West Preserve Loop





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	25	1502	539	49	114	24
Future Volume (veh/h)	25	1502	539	49	114	24
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1700	1800
Adj Flow Rate, veh/h	26	1565	561	46	119	21
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	46	2374	1910	156	242	228
Arrive On Green	0.03	0.69	0.60	0.60	0.15	0.15
Sat Flow, veh/h	1619	3510	3291	262	1619	1525
Grp Volume(v), veh/h	26	1565	299	308	119	21
Grp Sat Flow(s),veh/h/ln	1619	1710	1710	1753	1619	1525
Q Serve(g_s), s	1.1	17.3	5.7	5.8	4.5	0.8
Cycle Q Clear(g_c), s	1.1	17.3	5.7	5.8	4.5	0.8
Prop In Lane	1.00			0.15	1.00	1.00
Lane Grp Cap(c), veh/h	46	2374	1021	1046	242	228
V/C Ratio(X)	0.56	0.66	0.29	0.29	0.49	0.09
Avail Cap(c_a), veh/h	251	4501	1868	1915	515	485
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.1	5.8	6.6	6.6	26.2	24.6
Incr Delay (d2), s/veh	10.2	0.5	0.2	0.2	1.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.9	1.4	1.4	1.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	42.3	6.2	6.8	6.8	27.7	24.8
LnGrp LOS	D	A	A	A	C	C
Approach Vol, veh/h		1591	607		140	
Approach Delay, s/veh		6.8	6.8		27.3	
Approach LOS		A	A		C	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	52.3	14.7	6.5	45.8
Change Period (Y+Rc), s	5.8	4.7	4.6	5.8
Max Green Setting (Gmax), s	88.2	21.3	10.4	73.2
Max Q Clear Time (g_c+I1), s	19.3	6.5	3.1	7.8
Green Ext Time (p_c), s	27.2	0.3	0.0	5.5

Intersection Summary	
HCM 6th Ctrl Delay	8.0
HCM 6th LOS	A

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	802	77	364	64	41
Future Volume (vph)	802	77	364	64	41
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	2	1	6	8	
Permitted Phases					8
Detector Phase	2	1	6	8	8
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	32.2	9.6	16.2	14.6	14.6
Total Split (s)	33.3	12.1	45.4	14.6	14.6
Total Split (%)	55.5%	20.2%	75.7%	24.3%	24.3%
Yellow Time (s)	5.2	3.6	5.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	6.2	4.6	4.6
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	None	None	None	Max	Max

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 48
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 37: Main St. & Kimball Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	802	132	77	364	64	41
Future Volume (veh/h)	802	132	77	364	64	41
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1800	1800	1700	1800	1700	1800
Adj Flow Rate, veh/h	818	129	79	371	65	18
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1128	178	112	989	351	330
Arrive On Green	0.38	0.38	0.07	0.55	0.22	0.22
Sat Flow, veh/h	3049	467	1619	1800	1619	1525
Grp Volume(v), veh/h	473	474	79	371	65	18
Grp Sat Flow(s),veh/h/ln	1710	1715	1619	1800	1619	1525
Q Serve(g_s), s	10.9	10.9	2.2	5.4	1.5	0.4
Cycle Q Clear(g_c), s	10.9	10.9	2.2	5.4	1.5	0.4
Prop In Lane		0.27	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	652	654	112	989	351	330
V/C Ratio(X)	0.73	0.73	0.71	0.37	0.19	0.05
Avail Cap(c_a), veh/h	1003	1006	263	1528	351	330
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.2	12.2	21.0	5.9	14.8	14.3
Incr Delay (d2), s/veh	1.6	1.6	3.1	0.2	1.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	3.0	0.8	1.0	0.6	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.8	13.8	24.1	6.1	15.9	14.7
LnGrp LOS	B	B	C	A	B	B
Approach Vol, veh/h	947			450	83	
Approach Delay, s/veh	13.8			9.3	15.7	
Approach LOS	B			A	B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	7.8	23.8				31.6	14.6
Change Period (Y+Rc), s	4.6	6.2				6.2	4.6
Max Green Setting (Gmax), s	7.5	27.1				39.2	10.0
Max Q Clear Time (g_c+I1), s	4.2	12.9				7.4	3.5
Green Ext Time (p_c), s	0.0	4.6				2.0	0.1

Intersection Summary		
HCM 6th Ctrl Delay		12.5
HCM 6th LOS		B

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	137	670	37	16	256	41	1	13	21	60	15	174
Future Vol, veh/h	137	670	37	16	256	41	1	13	21	60	15	174
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	310	-	-	120	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	141	691	38	16	264	42	1	13	22	62	15	179

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	306	0	0	729	0	0	1406	1330	365	951	1328	285
Stage 1	-	-	-	-	-	-	992	992	-	317	317	-
Stage 2	-	-	-	-	-	-	414	338	-	634	1011	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.5	6.9	7.3	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1266	-	-	884	-	-	109	156	638	229	157	759
Stage 1	-	-	-	-	-	-	267	326	-	698	658	-
Stage 2	-	-	-	-	-	-	620	644	-	439	320	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1266	-	-	884	-	-	71	136	638	191	137	759
Mov Cap-2 Maneuver	-	-	-	-	-	-	155	222	-	277	220	-
Stage 1	-	-	-	-	-	-	237	290	-	621	646	-
Stage 2	-	-	-	-	-	-	454	632	-	359	284	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	0.5	16.2	20.5
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	357	1266	-	-	884	-	-	484
HCM Lane V/C Ratio	0.101	0.112	-	-	0.019	-	-	0.53
HCM Control Delay (s)	16.2	8.2	-	-	9.2	-	-	20.5
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.3	0.4	-	-	0.1	-	-	3.1

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1566	49	17	568	20	13
Future Volume (vph)	1566	49	17	568	20	13
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	35.8	35.8	9.6	15.8	10.1	10.1
Total Split (s)	94.0	94.0	13.0	107.0	13.0	13.0
Total Split (%)	78.3%	78.3%	10.8%	89.2%	10.8%	10.8%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.1	5.1
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 73.9
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 39: East Preserve Loop & Pine Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1566	49	17	568	20	13
Future Volume (veh/h)	1566	49	17	568	20	13
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1800	1800	1700	1800	1600	1800
Adj Flow Rate, veh/h	1631	51	18	592	21	5
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	2338	1043	33	2607	295	152
Arrive On Green	0.68	0.68	0.02	0.76	0.10	0.10
Sat Flow, veh/h	3510	1525	1619	3510	2956	1525
Grp Volume(v), veh/h	1631	51	18	592	21	5
Grp Sat Flow(s),veh/h/ln	1710	1525	1619	1710	1478	1525
Q Serve(g_s), s	22.8	0.9	0.9	3.9	0.5	0.2
Cycle Q Clear(g_c), s	22.8	0.9	0.9	3.9	0.5	0.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2338	1043	33	2607	295	152
V/C Ratio(X)	0.70	0.05	0.54	0.23	0.07	0.03
Avail Cap(c_a), veh/h	3813	1701	172	4376	295	152
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.6	4.1	38.4	2.7	32.3	32.2
Incr Delay (d2), s/veh	0.5	0.0	4.9	0.1	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	0.2	0.4	0.5	0.2	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.1	4.1	43.3	2.8	32.7	32.6
LnGrp LOS	A	A	D	A	C	C
Approach Vol, veh/h	1682			610	26	
Approach Delay, s/veh	8.0			4.0	32.7	
Approach LOS	A			A	C	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		13.0	6.2	59.9		66.1
Change Period (Y+Rc), s		5.1	4.6	5.8		5.8
Max Green Setting (Gmax), s		7.9	8.4	88.2		101.2
Max Q Clear Time (g_c+I1), s		2.5	2.9	24.8		5.9
Green Ext Time (p_c), s		0.0	0.0	29.2		6.0

Intersection Summary	
HCM 6th Ctrl Delay	7.2
HCM 6th LOS	A

Intersection	
Intersection Delay, s/veh	77.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	0	733	0	0	0	288	19	0	0	45	91
Future Vol, veh/h	14	0	733	0	0	0	288	19	0	0	45	91
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	15	0	772	0	0	0	303	20	0	0	47	96
Number of Lanes	1	0	1	0	0	0	1	2	0	0	2	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	3
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	3	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	3	0	2
HCM Control Delay	113.1	22.5	10
HCM LOS	F	C	A

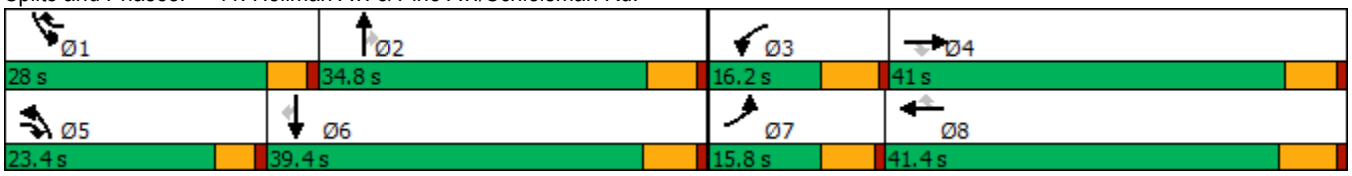
Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	0%	0%	0%
Vol Thru, %	0%	100%	100%	0%	0%	100%	100%	0%
Vol Right, %	0%	0%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	288	10	10	14	733	23	23	91
LT Vol	288	0	0	14	0	0	0	0
Through Vol	0	10	10	0	0	23	23	0
RT Vol	0	0	0	0	733	0	0	91
Lane Flow Rate	303	10	10	15	772	24	24	96
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.632	0.019	0.015	0.027	1.177	0.05	0.05	0.137
Departure Headway (Hd)	7.996	7.48	5.724	6.687	5.491	8.164	8.164	5.661
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	455	481	629	539	664	441	441	637
Service Time	5.696	5.18	3.424	4.387	3.191	5.864	5.864	3.361
HCM Lane V/C Ratio	0.666	0.021	0.016	0.028	1.163	0.054	0.054	0.151
HCM Control Delay	23.4	10.3	8.5	9.6	115.1	11.3	11.3	9.3
HCM Lane LOS	C	B	A	A	F	B	B	A
HCM 95th-tile Q	4.3	0.1	0	0.1	25.7	0.2	0.2	0.5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	1124	421	36	455	131	142	125	56	380	300	33
Future Volume (vph)	21	1124	421	36	455	131	142	125	56	380	300	33
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	5	3	8	1	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	34.8	9.6	16.2	35.2	9.6	9.6	32.4	32.4	9.6	32.8	32.8
Total Split (s)	15.8	41.0	23.4	16.2	41.4	28.0	23.4	34.8	34.8	28.0	39.4	39.4
Total Split (%)	13.2%	34.2%	19.5%	13.5%	34.5%	23.3%	19.5%	29.0%	29.0%	23.3%	32.8%	32.8%
Yellow Time (s)	4.8	4.8	3.6	5.2	5.2	3.6	3.6	4.4	4.4	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	6.2	6.2	4.6	4.6	5.4	5.4	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 106.2
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 41: Hellman Av. & Pine Av./Schleisman Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	1124	421	36	455	131	142	125	56	380	300	33
Future Volume (veh/h)	21	1124	421	36	455	131	142	125	56	380	300	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1600	1800	1800	1600	1800	1800	1600	1800	1800	1600	1800	1800
Adj Flow Rate, veh/h	22	1196	259	38	484	78	151	133	33	404	319	16
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	262	1444	553	262	1461	690	203	891	397	459	1187	529
Arrive On Green	0.09	0.29	0.29	0.09	0.30	0.30	0.07	0.26	0.26	0.16	0.35	0.35
Sat Flow, veh/h	2956	4914	1525	2956	4914	1525	2956	3420	1525	2956	3420	1525
Grp Volume(v), veh/h	22	1196	259	38	484	78	151	133	33	404	319	16
Grp Sat Flow(s),veh/h/ln	1478	1638	1525	1478	1638	1525	1478	1710	1525	1478	1710	1525
Q Serve(g_s), s	0.8	25.6	14.7	1.3	8.7	3.3	5.7	3.4	1.8	15.1	7.6	0.8
Cycle Q Clear(g_c), s	0.8	25.6	14.7	1.3	8.7	3.3	5.7	3.4	1.8	15.1	7.6	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	262	1444	553	262	1461	690	203	891	397	459	1187	529
V/C Ratio(X)	0.08	0.83	0.47	0.15	0.33	0.11	0.74	0.15	0.08	0.88	0.27	0.03
Avail Cap(c_a), veh/h	262	1532	580	262	1532	713	492	891	397	613	1187	529
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.2	37.2	27.6	47.5	30.9	17.8	51.6	32.1	31.6	46.7	26.5	24.3
Incr Delay (d2), s/veh	0.2	4.0	0.9	0.4	0.2	0.1	2.0	0.4	0.4	9.2	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	10.2	5.2	0.5	3.3	1.1	2.1	1.4	0.7	5.9	3.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.4	41.2	28.5	47.9	31.1	17.9	53.6	32.5	32.0	55.8	27.1	24.4
LnGrp LOS	D	D	C	D	C	B	D	C	C	E	C	C
Approach Vol, veh/h		1477			600			317			739	
Approach Delay, s/veh		39.1			30.5			42.5			42.7	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.1	35.2	16.2	39.4	12.4	45.0	15.8	39.8
Change Period (Y+Rc), s	4.6	* 5.8	6.2	* 6.2	4.6	5.8	5.8	6.2
Max Green Setting (Gmax), s	23.4	* 29	10.0	* 35	18.8	33.6	10.0	35.2
Max Q Clear Time (g_c+I1), s	17.1	5.4	3.3	27.6	7.7	9.6	2.8	10.7
Green Ext Time (p_c), s	0.4	1.1	0.0	5.5	0.2	2.6	0.0	4.5

Intersection Summary	
HCM 6th Ctrl Delay	38.6
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	333	227	516	328	519	840
Future Volume (vph)	333	227	516	328	519	840
Turn Type	Prot	pm+ov	NA	pm+ov	Prot	NA
Protected Phases	8	1	2	8	1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	36.3	11.0	46.3	36.3	11.0	11.0
Total Split (s)	36.3	37.0	46.7	36.3	37.0	83.7
Total Split (%)	30.3%	30.8%	38.9%	30.3%	30.8%	69.8%
Yellow Time (s)	4.3	4.0	4.3	4.3	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.0	5.3	5.3	5.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 105.6
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 42: Archibald Av. & Limonite Av.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	333	227	516	328	519	840
Future Volume (veh/h)	333	227	516	328	519	840
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	340	182	527	314	530	857
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	376	834	615	844	561	1300
Arrive On Green	0.21	0.21	0.32	0.32	0.31	0.68
Sat Flow, veh/h	1810	1610	1900	1576	1810	1900
Grp Volume(v), veh/h	340	182	527	314	530	857
Grp Sat Flow(s),veh/h/ln	1810	1610	1900	1576	1810	1900
Q Serve(g_s), s	18.0	6.0	25.5	11.5	28.1	25.5
Cycle Q Clear(g_c), s	18.0	6.0	25.5	11.5	28.1	25.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	376	834	615	844	561	1300
V/C Ratio(X)	0.90	0.22	0.86	0.37	0.94	0.66
Avail Cap(c_a), veh/h	571	1008	801	999	590	1522
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.0	12.9	31.1	13.5	33.1	8.9
Incr Delay (d2), s/veh	9.5	0.0	7.8	0.3	23.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	1.9	12.0	5.8	14.8	7.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	47.5	12.9	38.9	13.8	56.7	9.4
LnGrp LOS	D	B	D	B	E	A
Approach Vol, veh/h	522		841			1387
Approach Delay, s/veh	35.4		29.5			27.5
Approach LOS	D		C			C

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	35.5	37.1			72.5	25.7
Change Period (Y+Rc), s	5.0	5.3			* 5.3	5.3
Max Green Setting (Gmax), s	32.0	41.4			* 79	31.0
Max Q Clear Time (g_c+I1), s	30.1	27.5			27.5	20.0
Green Ext Time (p_c), s	0.4	4.3			3.5	0.4

Intersection Summary	
HCM 6th Ctrl Delay	29.6
HCM 6th LOS	C

Notes

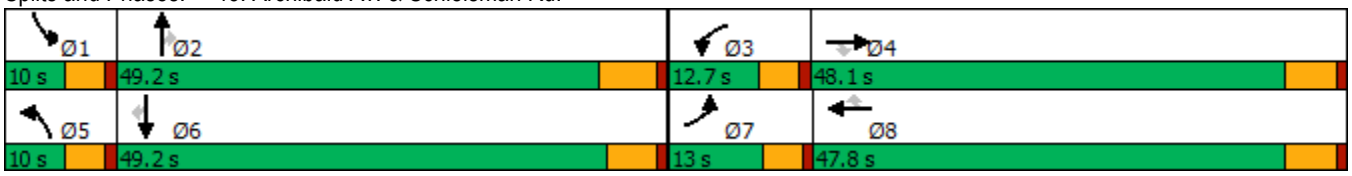
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

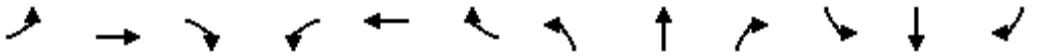
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	372	993	172	108	308	55	178	593	109	160	641	300
Future Volume (vph)	372	993	172	108	308	55	178	593	109	160	641	300
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	47.8	47.8	9.6	47.8	47.8	9.6	48.2	48.2	9.6	47.4	47.4
Total Split (s)	13.0	48.1	48.1	12.7	47.8	47.8	10.0	49.2	49.2	10.0	49.2	49.2
Total Split (%)	10.8%	40.1%	40.1%	10.6%	39.8%	39.8%	8.3%	41.0%	41.0%	8.3%	41.0%	41.0%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	5.2	5.2	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	6.2	6.2	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 99.3
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 43: Archibald Av. & Schleisman Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	372	993	172	108	308	55	178	593	109	160	641	300
Future Volume (veh/h)	372	993	172	108	308	55	178	593	109	160	641	300
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	380	1013	94	110	314	30	182	605	74	163	654	192
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	307	2467	766	173	2269	703	197	1028	319	197	1028	318
Arrive On Green	0.09	0.48	0.48	0.05	0.44	0.44	0.06	0.20	0.20	0.06	0.20	0.20
Sat Flow, veh/h	3510	5187	1610	3510	5187	1608	3510	5187	1610	3510	5187	1603
Grp Volume(v), veh/h	380	1013	94	110	314	30	182	605	74	163	654	192
Grp Sat Flow(s),veh/h/ln	1755	1729	1610	1755	1729	1608	1755	1729	1610	1755	1729	1603
Q Serve(g_s), s	8.4	12.2	3.1	3.0	3.5	1.0	5.0	10.2	3.7	4.4	11.1	10.5
Cycle Q Clear(g_c), s	8.4	12.2	3.1	3.0	3.5	1.0	5.0	10.2	3.7	4.4	11.1	10.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	307	2467	766	173	2269	703	197	1028	319	197	1028	318
V/C Ratio(X)	1.24	0.41	0.12	0.64	0.14	0.04	0.92	0.59	0.23	0.83	0.64	0.60
Avail Cap(c_a), veh/h	307	2467	766	296	2269	703	197	2323	721	197	2366	731
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.8	16.4	14.0	44.8	16.2	15.5	45.1	34.9	32.4	44.8	35.3	35.1
Incr Delay (d2), s/veh	131.6	0.5	0.3	1.4	0.1	0.1	42.0	0.5	0.4	22.7	0.7	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	4.5	1.1	1.3	1.3	0.4	3.2	4.1	1.4	2.5	4.4	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	175.5	16.9	14.4	46.2	16.3	15.6	87.1	35.5	32.7	67.6	36.0	36.9
LnGrp LOS	F	B	B	D	B	B	F	D	C	E	D	D
Approach Vol, veh/h		1487			454			861			1009	
Approach Delay, s/veh		57.3			23.5			46.2			41.3	
Approach LOS		E			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	25.2	9.3	51.5	10.0	25.2	13.0	47.8
Change Period (Y+Rc), s	4.6	6.2	4.6	5.8	4.6	* 6.2	4.6	5.8
Max Green Setting (Gmax), s	5.4	43.0	8.1	42.3	5.4	* 44	8.4	42.0
Max Q Clear Time (g_c+I1), s	6.4	12.2	5.0	14.2	7.0	13.1	10.4	5.5
Green Ext Time (p_c), s	0.0	4.1	0.0	7.7	0.0	5.0	0.0	2.1

Intersection Summary	
HCM 6th Ctrl Delay	46.5
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 3.3:

EXISTING (2019) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

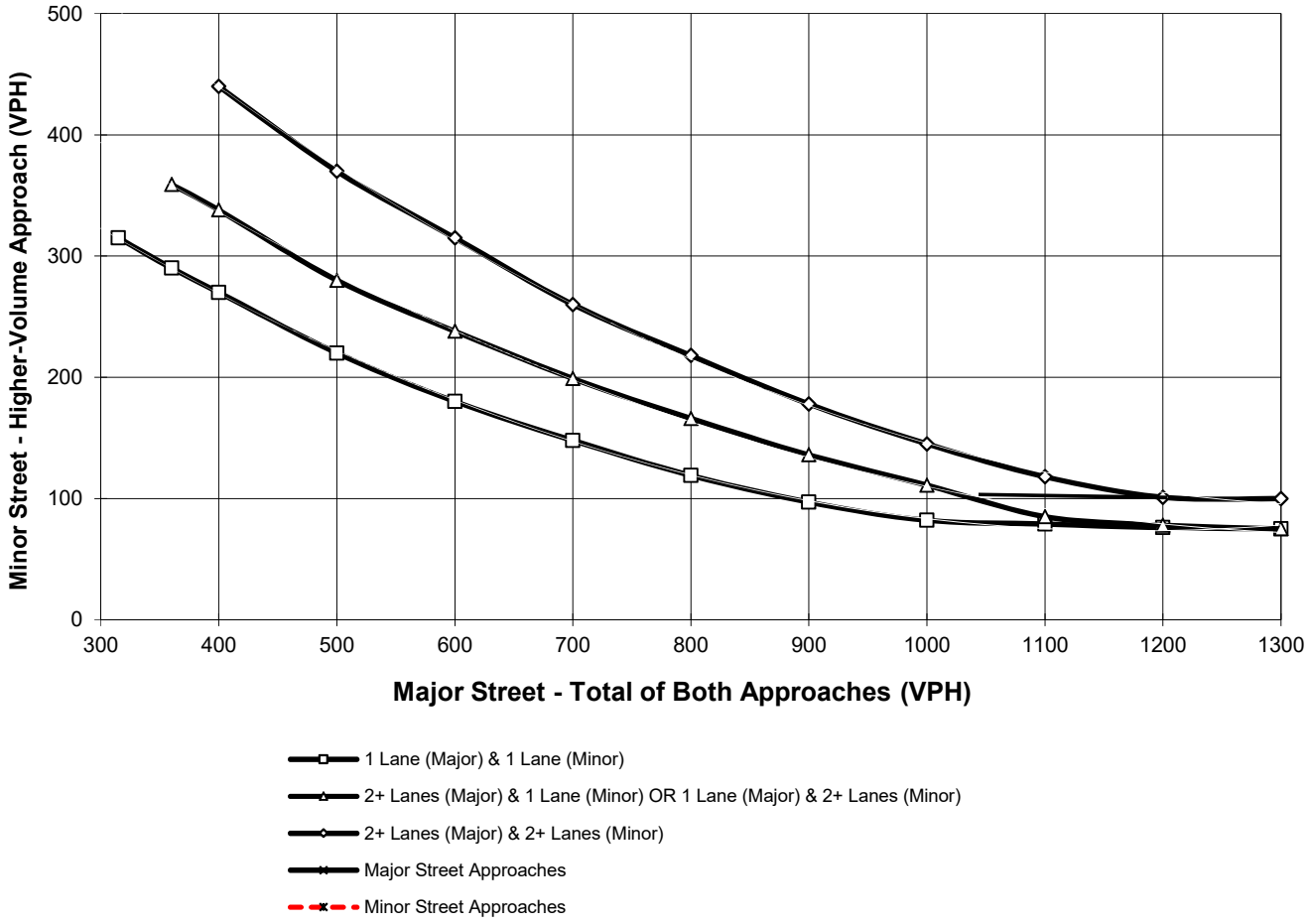
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2019) Conditions - Weekday AM Peak Hour**

Major Street Name = **Pine Av**
Total of Both Approaches (VPH) = **66**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **SR-71 NB Ramps**
High Volume Approach (VPH) = **445**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

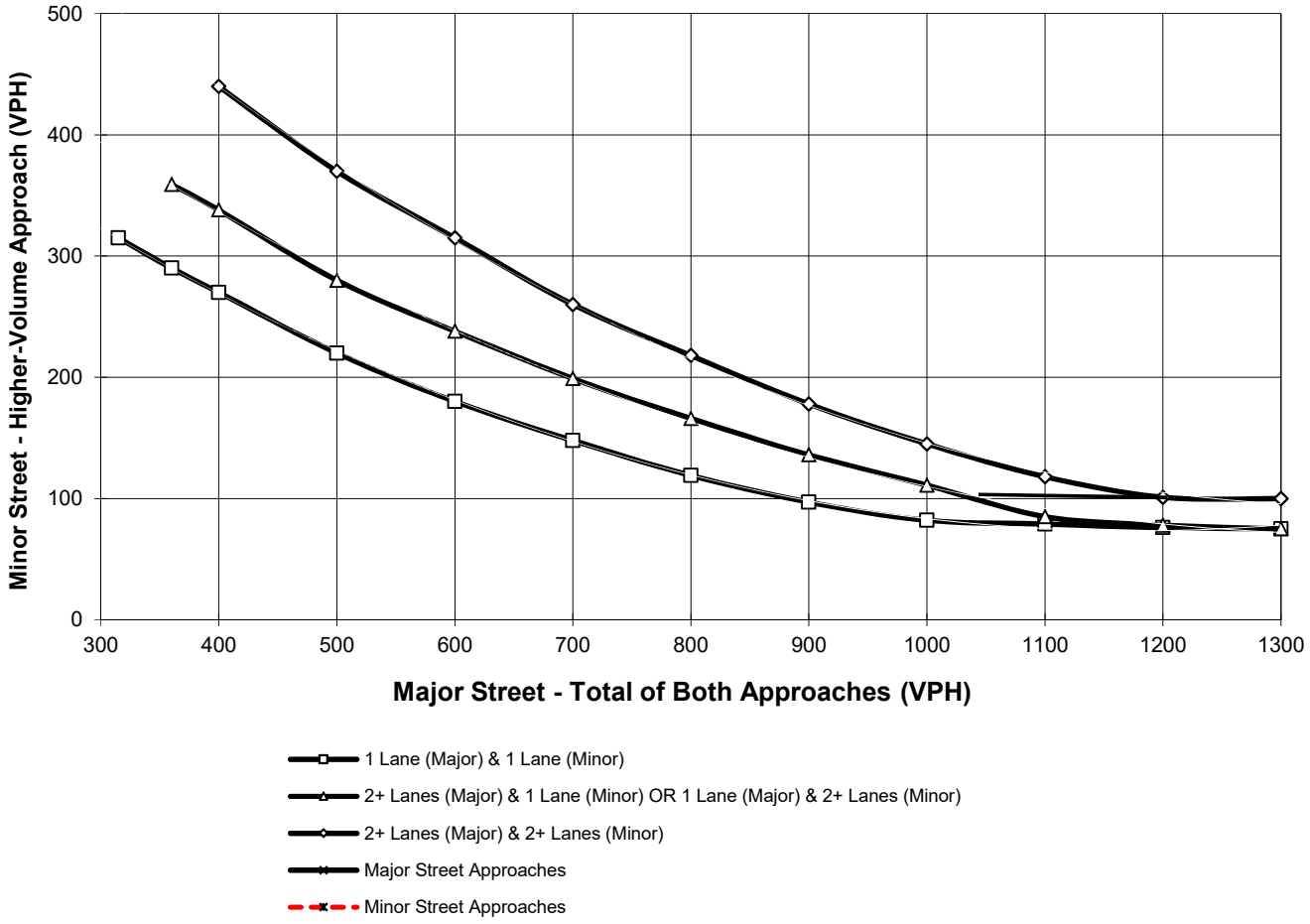
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2019) Conditions - Weekday AM Peak Hour**

Major Street Name = **Bickmore Av** Total of Both Approaches (VPH) = **57**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Mountain Av** High Volume Approach (VPH) = **229**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

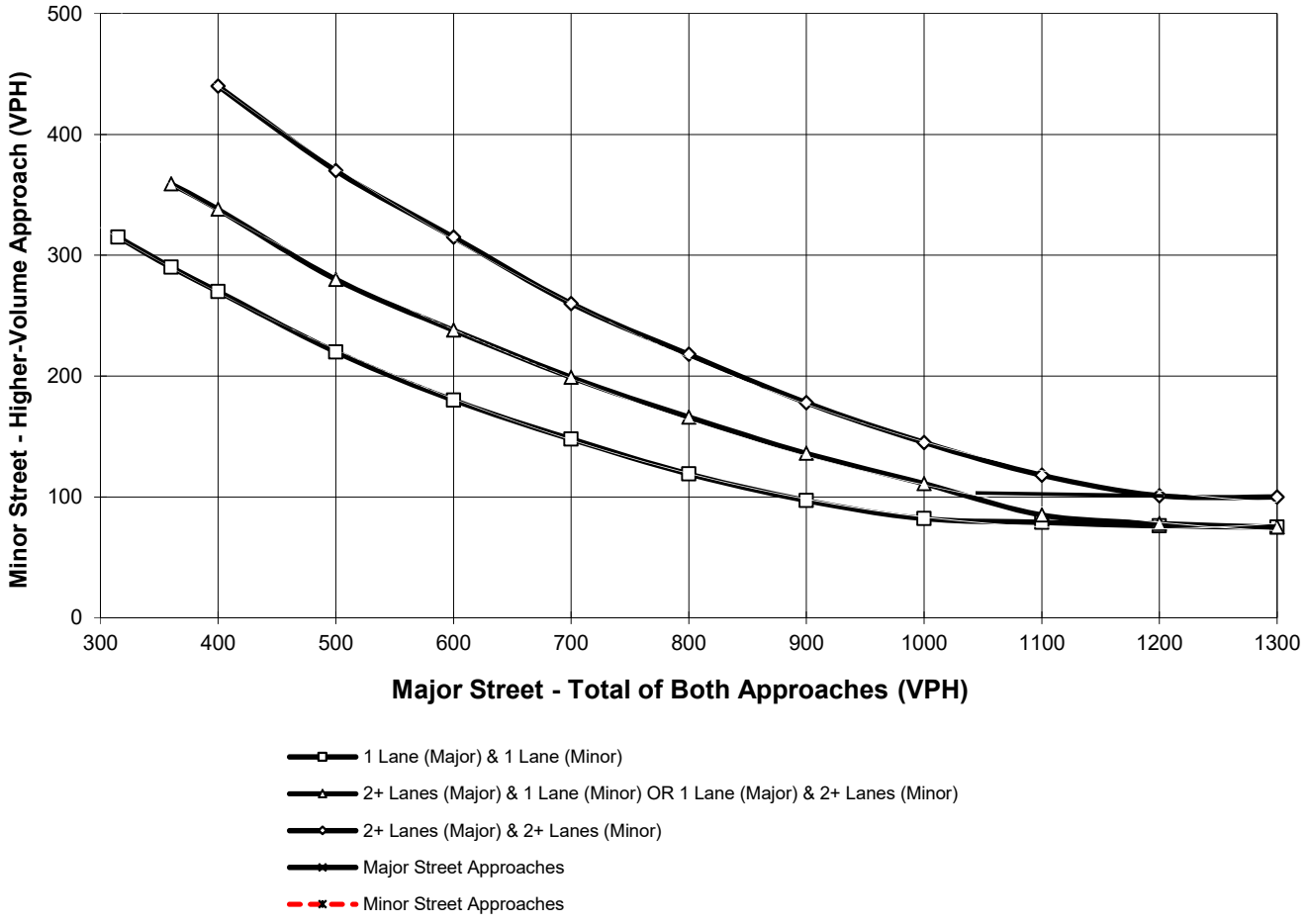
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2019) Conditions - Weekday PM Peak Hour**

Major Street Name = **El Prado Rd** — Total of Both Approaches (VPH) = **19**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Mountain Av** — High Volume Approach (VPH) = **507**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

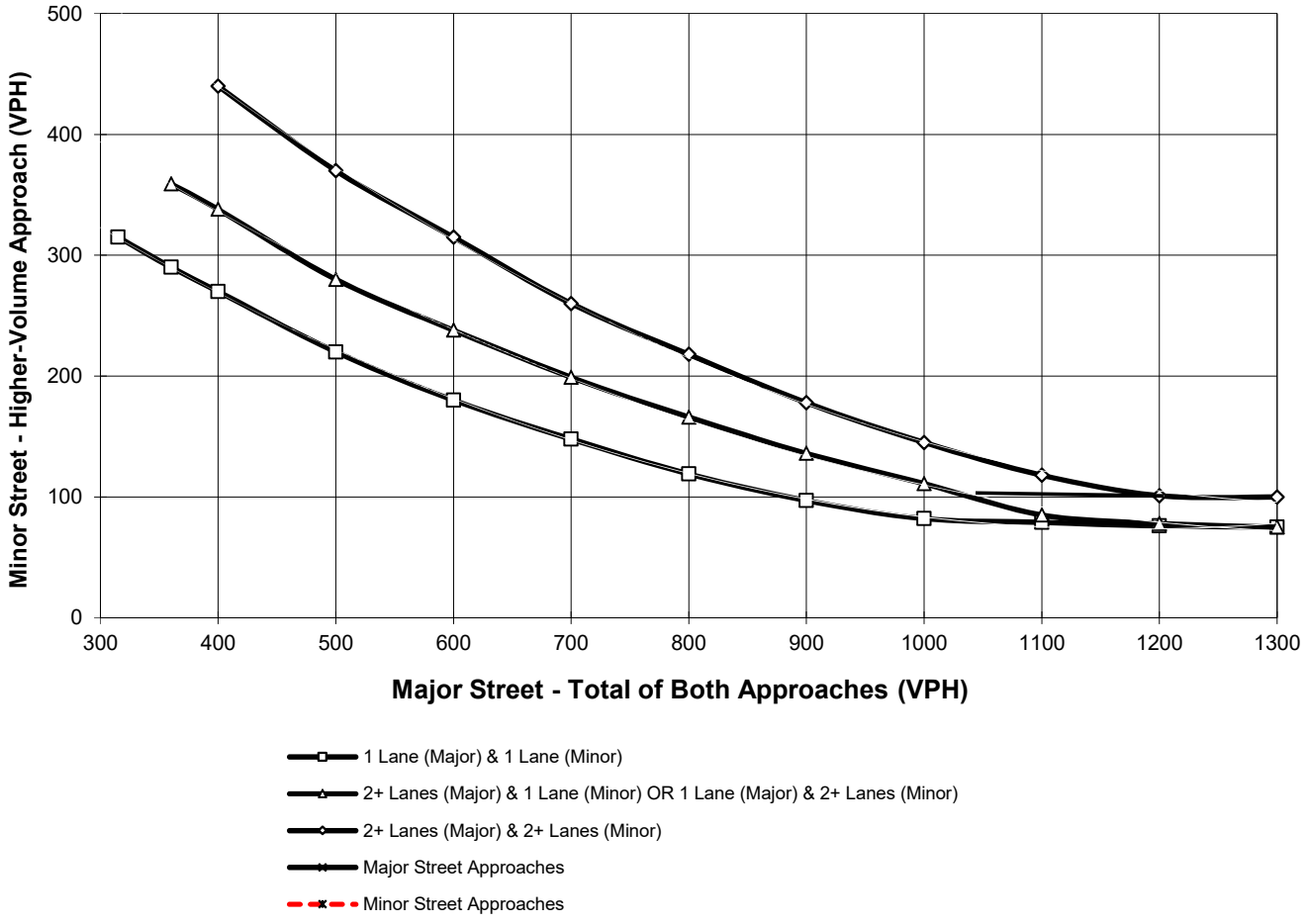
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2019) Conditions - Weekday PM Peak Hour**

Major Street Name = **El Prado Rd** — Total of Both Approaches (VPH) = **104**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Pine Av** — High Volume Approach (VPH) = **489**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

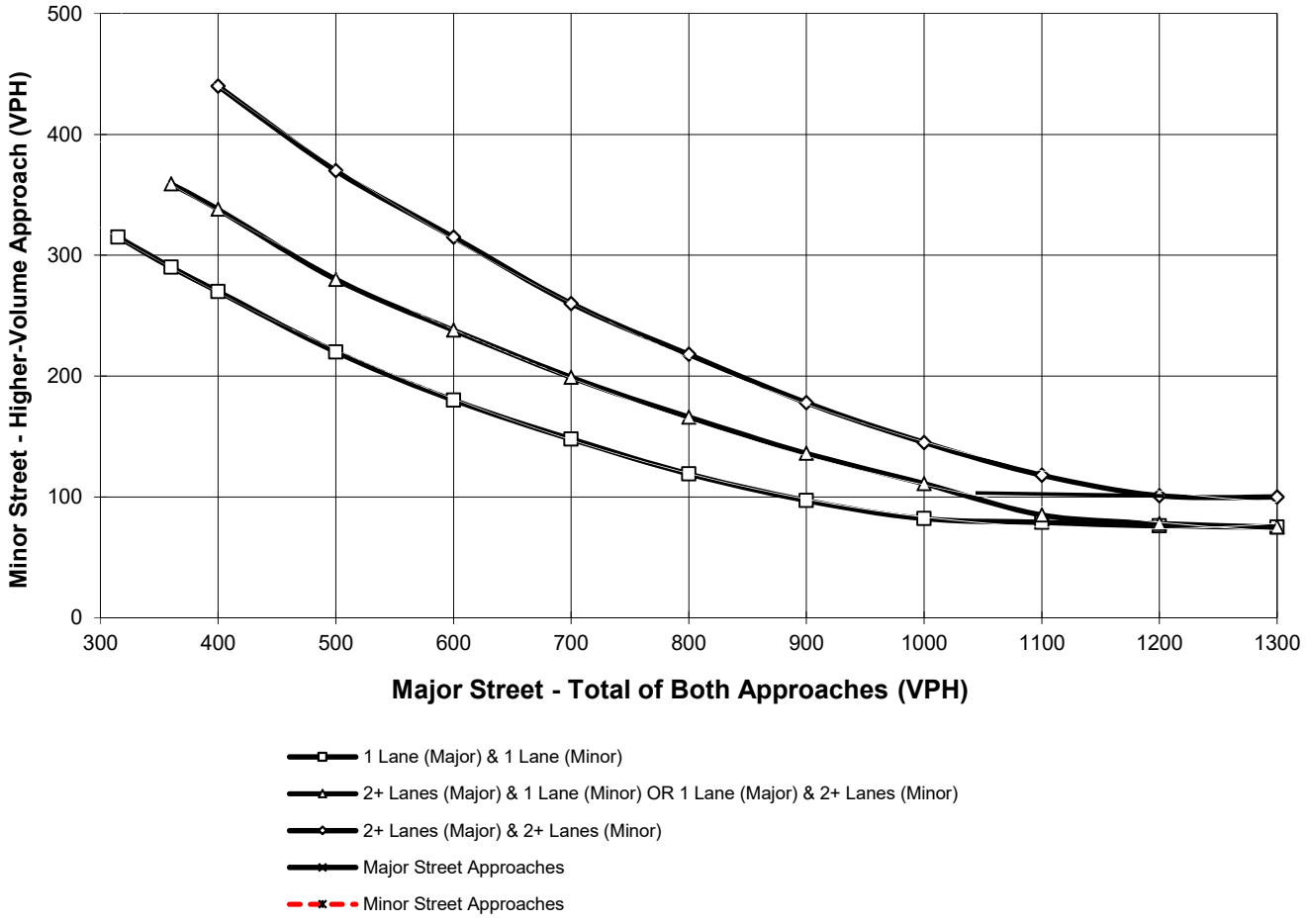
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2019) Conditions - Weekday AM Peak Hour**

Major Street Name = **Cucamonga Av** — Total of Both Approaches (VPH) = **30**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Chino Corona Rd** — High Volume Approach (VPH) = **92**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

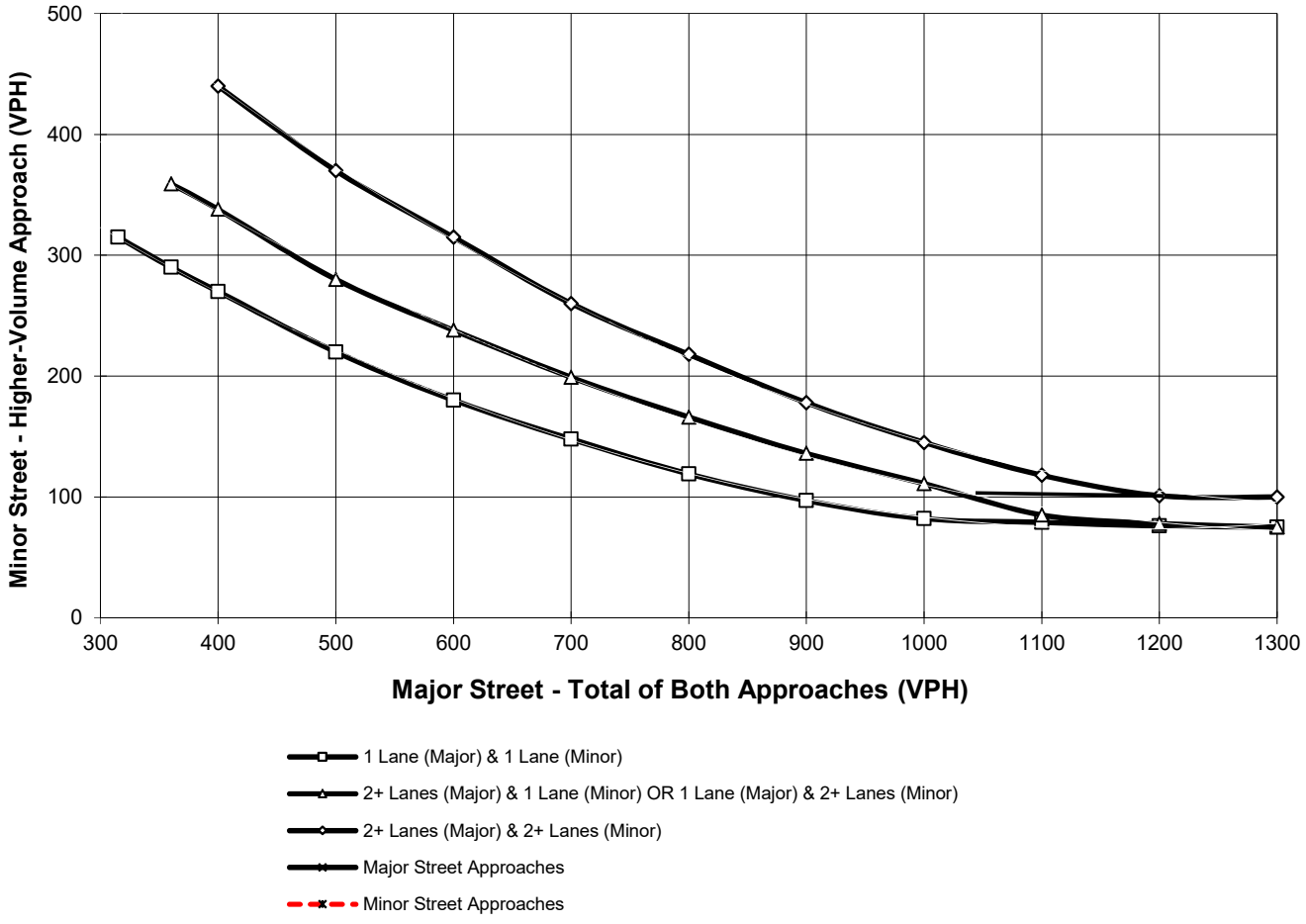
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2019) Conditions - Weekday PM Peak Hour**

Major Street Name = **Kimball Av** — Total of Both Approaches (VPH) = **284**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Flight Av** — High Volume Approach (VPH) = **844**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

APPENDIX 3.4:

EXISTING (2019) CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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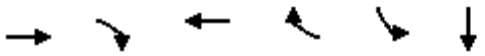
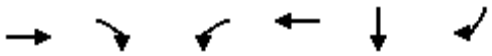


Lane Group	EBT	EBR	WBT	WBR	SBL	SBT
Lane Group Flow (vph)	1590	106	778	207	474	430
v/c Ratio	0.69	0.14	0.34	0.15	0.77	0.70
Control Delay	16.2	3.6	12.2	2.6	26.0	19.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.2	3.6	12.2	2.6	26.0	19.6
Queue Length 50th (ft)	165	0	66	0	152	107
Queue Length 95th (ft)	236	24	101	17	245	191
Internal Link Dist (ft)	970		693			1282
Turn Bay Length (ft)		175				
Base Capacity (vph)	2306	758	2306	1342	791	766
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.14	0.34	0.15	0.60	0.56

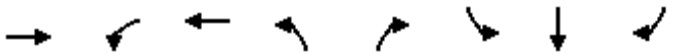
Intersection Summary



Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	510	37	3	66	8	208
v/c Ratio	0.85	0.06	0.02	0.05	0.01	0.23
Control Delay	36.5	0.2	28.7	13.3	9.3	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.5	0.2	28.7	13.3	9.3	2.5
Queue Length 50th (ft)	167	0	1	8	1	0
Queue Length 95th (ft)	#365	0	8	18	8	29
Internal Link Dist (ft)	1415			361	1338	
Turn Bay Length (ft)			150			725
Base Capacity (vph)	606	582	145	1712	916	916
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.06	0.02	0.04	0.01	0.23

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	731	199	281	19	294	333	335	41
v/c Ratio	0.89	0.62	0.17	0.12	0.87	0.66	0.66	0.07
Control Delay	43.8	42.2	18.2	36.4	38.0	31.1	31.1	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.8	42.2	18.2	36.4	38.0	31.1	31.1	0.2
Queue Length 50th (ft)	183	91	46	9	37	157	158	0
Queue Length 95th (ft)	#276	#247	80	29	#178	215	215	0
Internal Link Dist (ft)	980		1139				1358	
Turn Bay Length (ft)		200				1000		255
Base Capacity (vph)	855	320	1672	155	339	640	645	693
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.62	0.17	0.12	0.87	0.52	0.52	0.06

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBT	WBR	NBL	NBT
Lane Group Flow (vph)	1251	884	911	1108	67	450
v/c Ratio	0.51	0.73	0.37	0.83	0.11	0.79
Control Delay	14.1	5.9	12.7	8.7	12.5	27.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.1	5.9	12.7	8.7	12.5	27.1
Queue Length 50th (ft)	120	0	80	3	17	146
Queue Length 95th (ft)	185	60	128	#277	34	207
Internal Link Dist (ft)	693		840			1223
Turn Bay Length (ft)						
Base Capacity (vph)	2448	1208	2448	1338	778	722
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.73	0.37	0.83	0.09	0.62

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	445	0	60	6	0	0
Future Vol, veh/h	445	0	60	6	0	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	517	0	70	7	0	0
Number of Lanes	2	0	1	1	0	0

Approach	EB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left		EB
Conflicting Lanes Left	0	2
Conflicting Approach Right	NB	
Conflicting Lanes Right	2	0
HCM Control Delay	9.3	9.1
HCM LOS	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2
Vol Left, %	100%	82%	100%	100%
Vol Thru, %	0%	18%	0%	0%
Vol Right, %	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	33	33	223	223
LT Vol	33	27	223	223
Through Vol	0	6	0	0
RT Vol	0	0	0	0
Lane Flow Rate	38	38	259	259
Geometry Grp	7	7	7	7
Degree of Util (X)	0.065	0.064	0.376	0.254
Departure Headway (Hd)	6.098	6.007	5.236	3.533
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	589	598	691	1019
Service Time	3.821	3.729	2.947	1.244
HCM Lane V/C Ratio	0.065	0.064	0.375	0.254
HCM Control Delay	9.2	9.1	11.1	7.4
HCM Lane LOS	A	A	B	A
HCM 95th-tile Q	0.2	0.2	1.8	1



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	699	307	787	976	46	667
v/c Ratio	0.70	0.50	0.98	0.35	0.10	0.86
Control Delay	26.4	8.8	52.3	3.3	33.6	17.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.4	8.8	52.3	3.3	33.6	17.5
Queue Length 50th (ft)	162	43	374	63	10	11
Queue Length 95th (ft)	m180	m69	#620	45	27	#203
Internal Link Dist (ft)	1139			2865	1665	
Turn Bay Length (ft)		100	300			420
Base Capacity (vph)	1263	712	800	3023	481	776
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.43	0.98	0.32	0.10	0.86

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	371	364	334	354	960	1007	500
v/c Ratio	0.83	0.84	0.68	0.86	0.43	0.81	0.57
Control Delay	47.9	47.3	25.4	38.9	17.0	35.9	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.9	47.3	25.4	38.9	17.0	35.9	5.4
Queue Length 50th (ft)	203	196	107	169	253	290	0
Queue Length 95th (ft)	306	#316	202	m#276	330	#447	77
Internal Link Dist (ft)		1410			440	1540	
Turn Bay Length (ft)	400		400	285			
Base Capacity (vph)	514	496	547	471	2251	1240	883
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.73	0.61	0.75	0.43	0.81	0.57

Intersection Summary

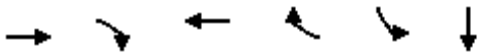
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	382	348	876	691	382	1237
v/c Ratio	0.88	0.78	0.70	0.72	0.89	0.54
Control Delay	54.9	37.2	29.9	8.4	52.7	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.4
Total Delay	54.9	37.2	29.9	8.4	52.7	5.4
Queue Length 50th (ft)	211	149	238	22	158	55
Queue Length 95th (ft)	#363	#260	312	146	m#296	96
Internal Link Dist (ft)		1071	1060			440
Turn Bay Length (ft)	900					
Base Capacity (vph)	476	485	1260	960	461	2276
Starvation Cap Reductn	0	0	0	0	0	462
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.72	0.70	0.72	0.83	0.68

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

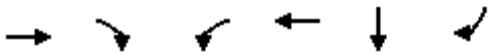


Lane Group	EBT	EBR	WBT	WBR	SBL	SBT
Lane Group Flow (vph)	1031	72	839	290	822	979
v/c Ratio	0.75	0.15	0.61	0.31	0.86	1.11
Control Delay	26.0	6.4	23.2	3.8	24.2	81.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.0	6.4	23.2	3.8	24.2	81.5
Queue Length 50th (ft)	136	0	106	0	263	~471
Queue Length 95th (ft)	181	26	144	27	#516	#698
Internal Link Dist (ft)	970		693			1282
Turn Bay Length (ft)		175				
Base Capacity (vph)	1372	468	1372	946	955	885
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.15	0.61	0.31	0.86	1.11

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

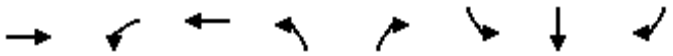
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	327	43	6	111	21	1053
v/c Ratio	0.67	0.09	0.04	0.11	0.02	0.85
Control Delay	27.4	0.8	28.7	14.8	8.4	12.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.4	0.8	28.7	14.8	8.4	12.7
Queue Length 50th (ft)	98	0	2	14	3	46
Queue Length 95th (ft)	206	3	13	29	16	#456
Internal Link Dist (ft)	1415			361	1338	
Turn Bay Length (ft)			150			725
Base Capacity (vph)	606	582	153	1743	1018	1237
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.07	0.04	0.06	0.02	0.85

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	936	126	264	18	153	360	364	70
v/c Ratio	0.91	0.57	0.16	0.16	0.62	0.66	0.66	0.12
Control Delay	43.1	44.4	24.1	38.8	19.1	29.9	29.8	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.1	44.4	24.1	38.8	19.1	29.9	29.8	0.4
Queue Length 50th (ft)	240	62	56	9	0	167	169	0
Queue Length 95th (ft)	#376	#173	98	29	#65	230	232	1
Internal Link Dist (ft)	980		1139				1358	
Turn Bay Length (ft)		200				1000		255
Base Capacity (vph)	1026	221	1675	115	246	662	670	711
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.57	0.16	0.16	0.62	0.54	0.54	0.10

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBT	WBR	NBL	NBT
Lane Group Flow (vph)	1426	438	937	692	130	369
v/c Ratio	0.51	0.41	0.33	0.58	0.27	0.80
Control Delay	10.9	2.5	9.4	3.2	18.4	31.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.9	2.5	9.4	3.2	18.4	31.5
Queue Length 50th (ft)	123	0	71	0	41	121
Queue Length 95th (ft)	178	41	108	50	75	204
Internal Link Dist (ft)	693		840			1223
Turn Bay Length (ft)						
Base Capacity (vph)	2812	1056	2812	1192	585	557
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.41	0.33	0.58	0.22	0.66

Intersection Summary

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	324	0	111	3	0	0
Future Vol, veh/h	324	0	111	3	0	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	377	0	129	3	0	0
Number of Lanes	2	0	1	1	0	0

Approach	EB	NB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left		EB
Conflicting Lanes Left	0	2
Conflicting Approach Right	NB	
Conflicting Lanes Right	2	0
HCM Control Delay	8.8	9.2
HCM LOS	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2
Vol Left, %	100%	95%	100%	100%
Vol Thru, %	0%	5%	0%	0%
Vol Right, %	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	57	57	162	162
LT Vol	57	54	162	162
Through Vol	0	3	0	0
RT Vol	0	0	0	0
Lane Flow Rate	66	67	188	188
Geometry Grp	7	7	7	7
Degree of Util (X)	0.107	0.108	0.282	0.193
Departure Headway (Hd)	5.837	5.81	5.392	3.688
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	615	617	669	976
Service Time	3.565	3.539	3.107	1.402
HCM Lane V/C Ratio	0.107	0.109	0.281	0.193
HCM Control Delay	9.3	9.2	10.2	7.3
HCM Lane LOS	A	A	B	A
HCM 95th-tile Q	0.4	0.4	1.2	0.7



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	937	174	413	1091	148	1055
v/c Ratio	0.81	0.29	1.26	0.55	0.12	1.28
Control Delay	26.3	7.4	171.8	12.8	18.7	155.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.3	7.4	171.8	12.8	18.7	155.1
Queue Length 50th (ft)	172	16	~263	163	26	~555
Queue Length 95th (ft)	m214	m23	#406	195	44	#732
Internal Link Dist (ft)	1139			2865	1665	
Turn Bay Length (ft)		100	300			420
Base Capacity (vph)	1263	644	327	2075	1238	823
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.27	1.26	0.53	0.12	1.28

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	350	350	318	243	1077	1007	493
v/c Ratio	0.78	0.81	0.70	0.77	0.48	0.70	0.53
Control Delay	43.2	44.0	29.4	39.9	19.9	28.6	4.7
Queue Delay	0.0	0.0	0.0	0.0	1.1	0.0	0.0
Total Delay	43.2	44.0	29.4	39.9	21.0	28.6	4.7
Queue Length 50th (ft)	190	190	123	125	312	256	0
Queue Length 95th (ft)	276	284	207	m184	417	#422	72
Internal Link Dist (ft)		1410			404	1540	
Turn Bay Length (ft)				285			400
Base Capacity (vph)	552	528	545	391	2247	1435	939
Starvation Cap Reductn	0	0	0	0	851	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.66	0.58	0.62	0.77	0.70	0.53

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	367	356	886	562	368	1211
v/c Ratio	0.88	0.81	0.68	0.61	0.88	0.52
Control Delay	56.0	40.0	28.6	5.3	49.8	4.5
Queue Delay	1.4	0.8	0.0	0.0	0.0	0.3
Total Delay	57.4	40.8	28.6	5.3	49.8	4.9
Queue Length 50th (ft)	205	152	238	0	118	43
Queue Length 95th (ft)	#352	#288	311	76	#321	88
Internal Link Dist (ft)		1071	1124			404
Turn Bay Length (ft)	900					
Base Capacity (vph)	457	474	1310	928	461	2312
Starvation Cap Reductn	0	0	0	0	0	496
Spillback Cap Reductn	20	20	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.78	0.68	0.61	0.80	0.67

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

APPENDIX 3.5:

EXISTING (2019) CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	CS	Date	2/13/2019
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2019)
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-71 SB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	17
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Southbound, N of Central	4275	3
2	Diverge	Diverge	Central SB Off-Ramp	1500	3
3	Basic	Basic	Cetnral SB Off-Ramp to Loop On-Ramp	1125	3
4	Merge	Merge	Central SB Loop On-Ramp	1500	3
5	Basic	Basic	Central SB Loop On-Ramp to On-Ramp	1025	3
6	Merge	Merge	Central SB On-Ramp	1500	3
7	Basic	Basic	Southbound, Central to Pine	5500	2
8	Diverge	Diverge	Pine SB Off-Ramp	1500	2
9	Basic	Basic	Pine SB Off-Ramp to On-Ramp	2315	2
10	Merge	Merge	Pine SB On-Ramp	1500	2
11	Basic	Basic	Southbound, Pine to Euclid	4500	2
12	Diverge	Diverge	Euclid SB Off-Ramp	1500	2
13	Basic	Basic	Euclid SB Off-Ramp to Loop On-Ramp	1460	2
14	Merge	Merge	Euclid SB Loop On-Ramp	1500	2
15	Basic	Basic	Euclid SB Loop On-Ramp to On-Ramp	1200	2
16	Merge	Merge	Euclid SB On-Ramp	1500	2
17	Basic	Basic	Southbound, S of Euclid	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.914	1946	7131	0.27	67.7	9.6	A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	

1	0.92	0.92	0.914	0.909	1946	863	7200	2100	0.27	0.41	62.0	59.5	10.5	16.4	B
Segment 3: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.931		1067		7116		0.15		67.2		5.3		A
Segment 4: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.931	0.840	1274	207	7200	1900	0.18	0.11	64.0	61.3	6.6	9.5	A
Segment 5: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.914		1277		7116		0.18		67.2		6.3		A
Segment 6: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.914	0.980	1379	102	7200	2100	0.19	0.05	64.5	61.6	7.1	10.0	A
Segment 7: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.922		1375		4726		0.29		66.3		10.4		A
Segment 8: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.922	0.943	1375	206	4800	2100	0.29	0.10	61.1	61.1	11.3	14.5	B
Segment 9: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.914		1174		4718		0.25		65.9		8.9		A
Segment 10: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.914	0.943	1214	40	4800	2100	0.25	0.02	61.7	61.7	9.8	12.5	B
Segment 11: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.914		1215		4726		0.26		66.3		9.2		A
Segment 12: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**

	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.914	0.917	1215	750	4800	2100	0.25	0.36	59.8	59.8	10.2	13.4	B

Segment 13: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.931	454	4744	0.10	67.2	3.4	A

Segment 14: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.931	0.885	980	526	4800	1900	0.20	0.28	61.4	61.4	8.0	9.7	A

Segment 15: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.899	988	4744	0.21	67.2	7.4	A

Segment 16: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.899	0.926	1719	731	4800	2100	0.36	0.35	61.5	61.5	14.0	15.8	B

Segment 17: Basic

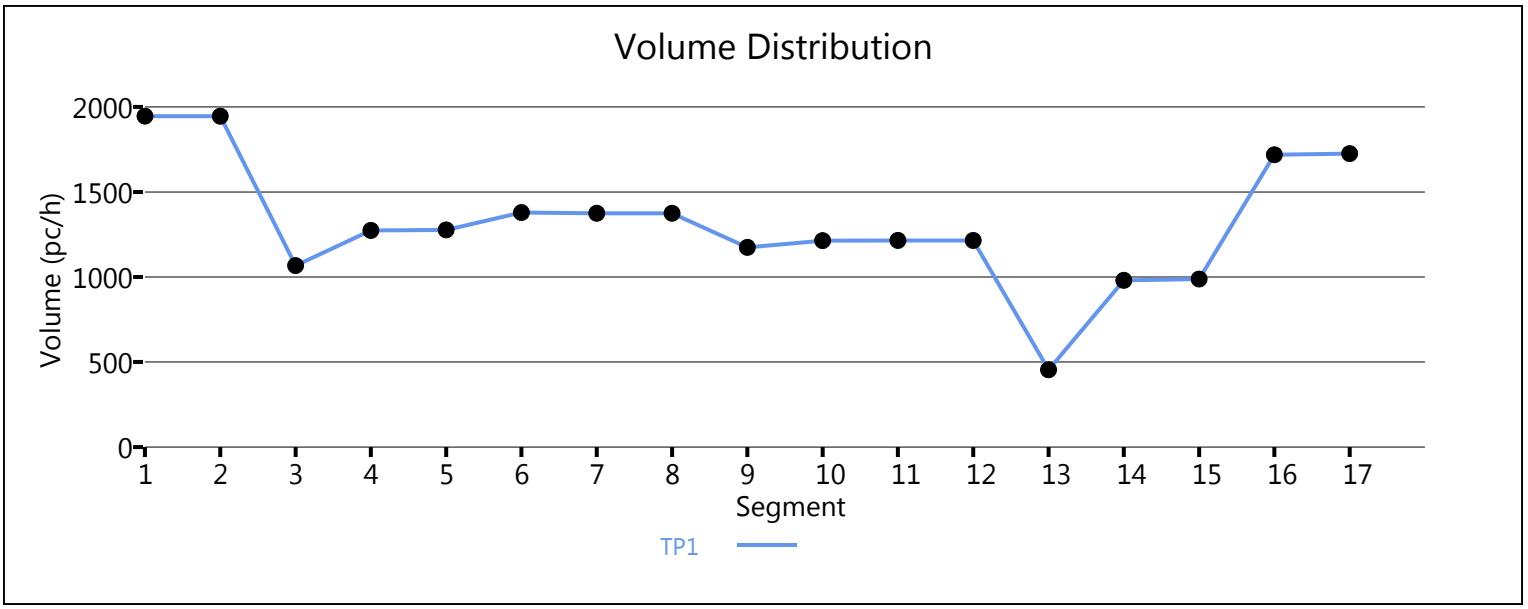
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.907	1726	4554	0.38	57.7	15.0	B

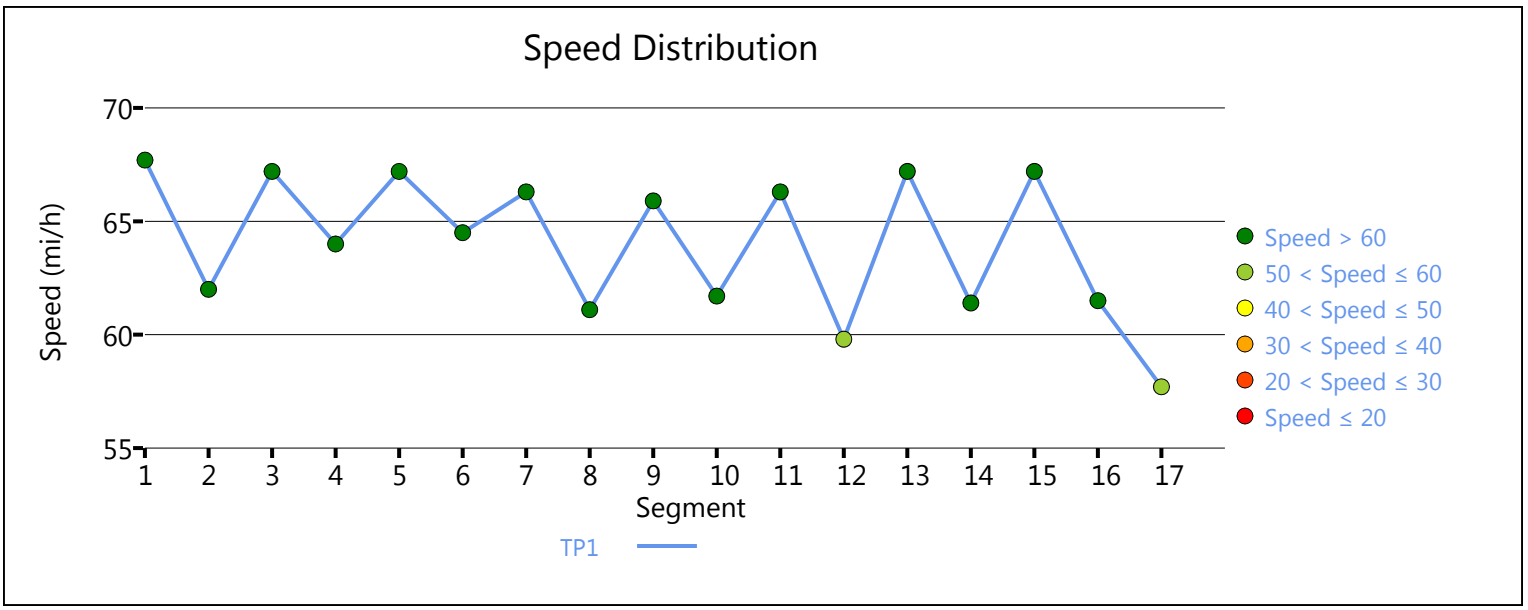
Facility Time Period Results

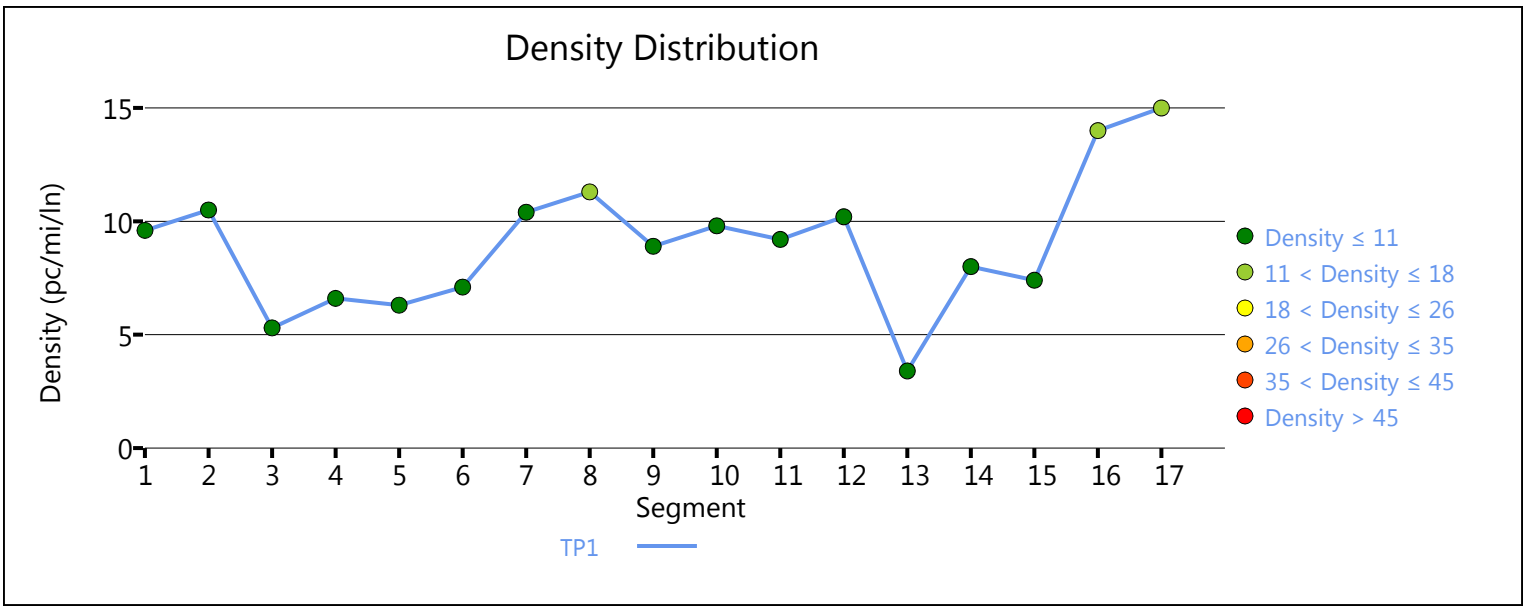
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	63.6	9.7	8.9	6.9	A

Facility Overall Results

Space Mean Speed, mi/h	63.6	Density, veh/mi/ln	8.9
Average Travel Time, min	6.9	Density, pc/mi/ln	9.7







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HCS7 Freeway Facilities Report

Project Information

Analyst	CS	Date	2/13/2019
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2019)
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-71 NB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	15
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Northbound, S of Euclid	5280	3
2	Diverge	Basic	Euclid NB Off-Ramp	1500	3
3	Basic	Basic	Euclid NB Off-Ramp to On-Ramp	1500	2
4	Merge	Merge	Euclid NB On-Ramp	1500	2
5	Basic	Basic	Northbound, Euclid to Pine	4500	2
6	Diverge	Diverge	Pine NB Off-Ramp	1500	2
7	Basic	Basic	Pine NB Off-Ramp to On-Ramp	2225	2
8	Merge	Basic	Pine NB On-Ramp	1500	2
9	Basic	Basic	Northbound, Pine to Central	5500	3
10	Diverge	Diverge	Central NB Off-Ramp	1500	3
11	Basic	Basic	Central NB Off-Ramp to Loop On-Ramp	1050	3
12	Merge	Merge	Central NB Loop On-Ramp	1500	3
13	Basic	Basic	Central NB Loop On-Ramp to On-Ramp	1040	3
14	Merge	Merge	Central NB On-Ramp	1500	3
15	Basic	Basic	Northbound, N of Central	4275	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.763	1879	6831	0.28	57.7	10.8	A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.763	0.909	1879	713	7200	4200	0.26	0.17	70.0	-	8.9	-	A

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.676		1163		4754		0.24		67.7		8.6		A
Segment 4: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.676	0.943	2290	1127	4800	1900	0.48	0.59	60.9	60.9	18.8	18.6	B
Segment 5: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.806		2294		4736		0.48		66.8		17.2		B
Segment 6: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.806	0.952	2294	73	4800	2100	0.48	0.03	61.5	61.5	18.7	22.7	C
Segment 7: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.806		2208		4726		0.47		66.3		16.7		B
Segment 8: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.806	0.980	2696	488	4800	2100	0.46	0.23	70.0	-	15.8	-	B
Segment 9: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.833		2710		7089		0.38		66.3		13.6		B
Segment 10: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.833	0.943	2710	496	7200	2100	0.38	0.24	64.1	60.4	14.1	20.4	C
Segment 11: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.813		2202		7116		0.31		67.2		10.9		A
Segment 12: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.813	0.971	3055	853	7200	1900	0.42	0.45	62.9	60.8	16.2	18.7	B

Segment 13: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.855	3063	7116	0.43	67.2	15.2	B

Segment 14: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.855	0.935	4127	1064	7200	2100	0.57	0.51	62.3	60.3	22.1	24.6	C

Segment 15: Basic

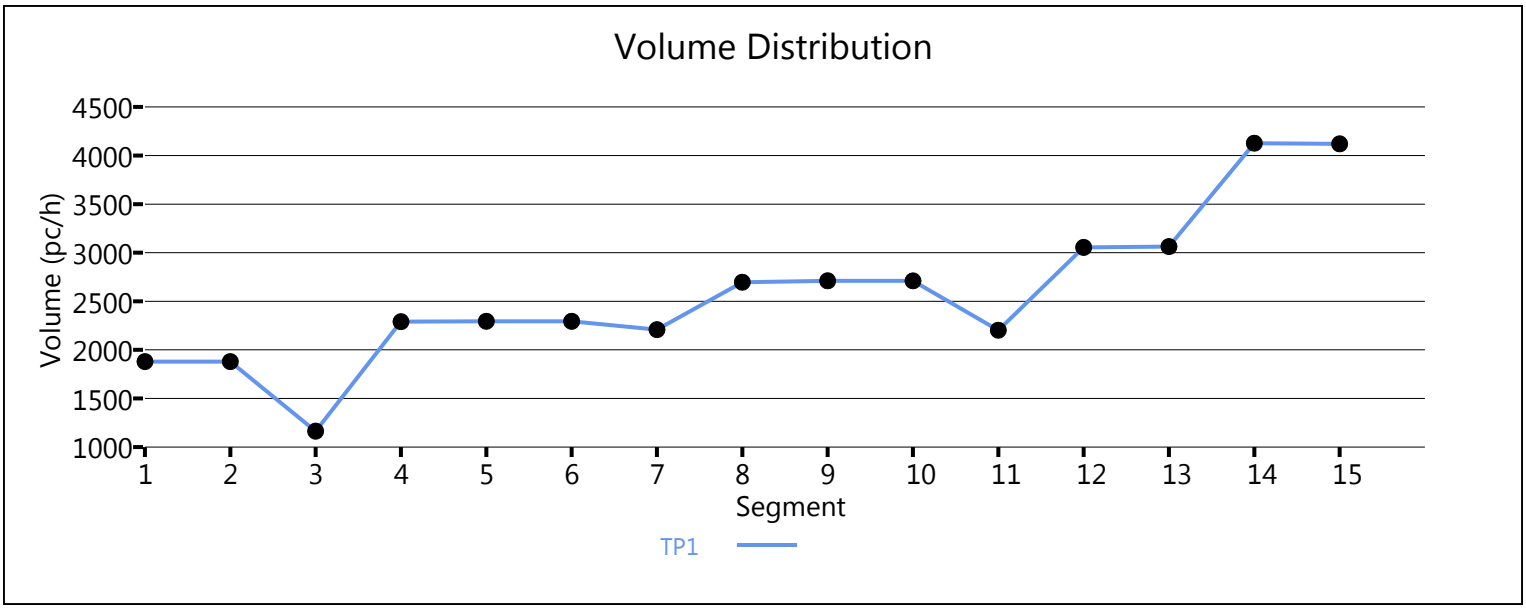
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.877	4120	7131	0.58	67.6	20.3	C

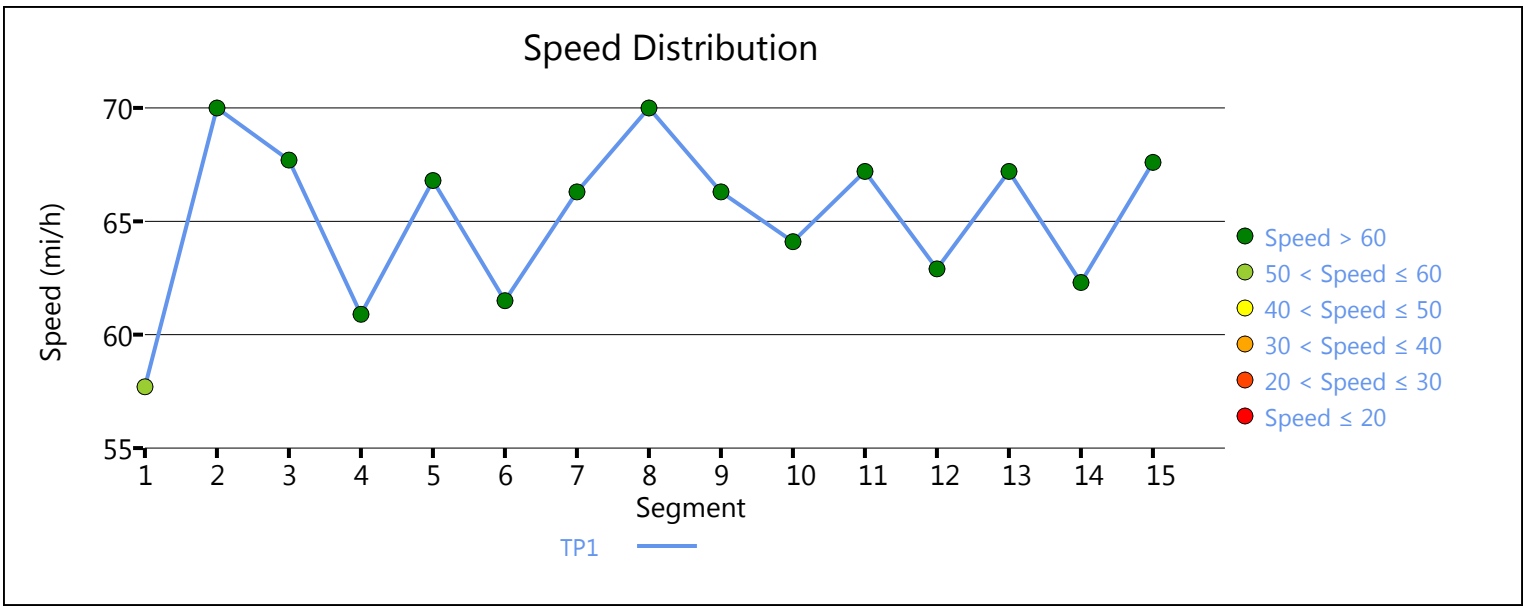
Facility Time Period Results

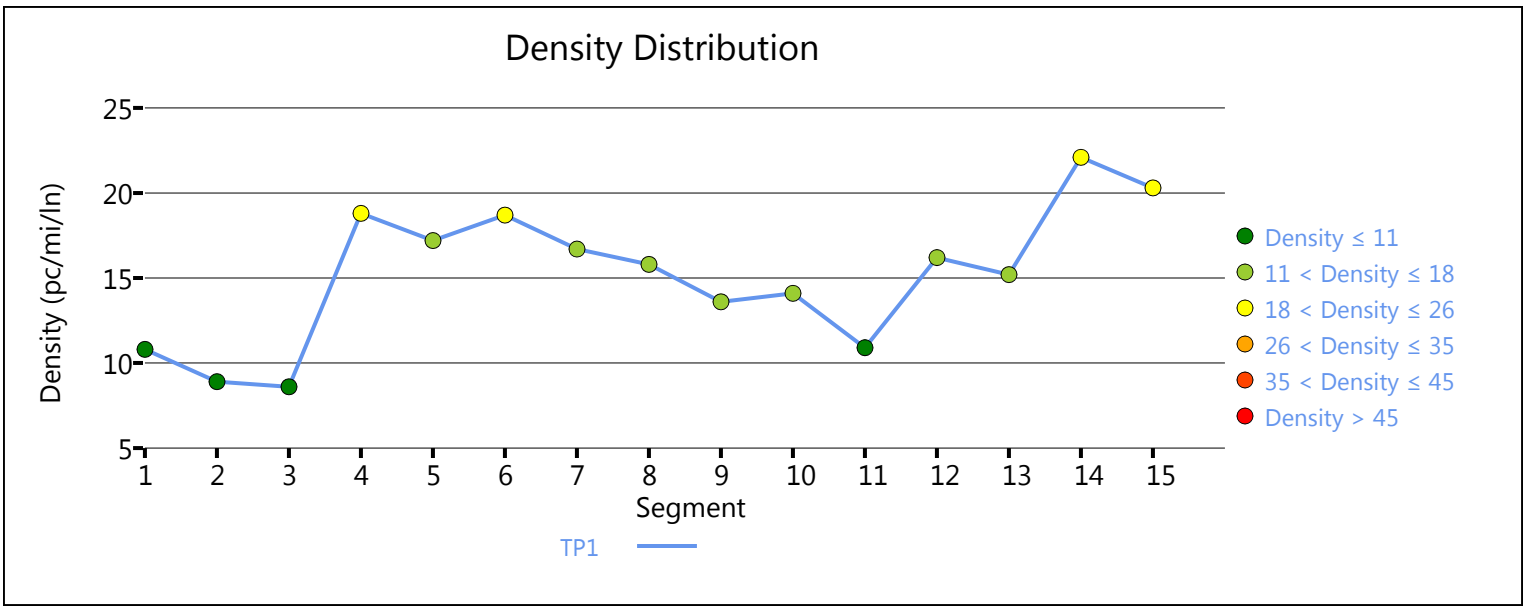
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.0	15.1	12.3	6.3	B

Facility Overall Results

Space Mean Speed, mi/h	65.0	Density, veh/mi/ln	12.3
Average Travel Time, min	6.3	Density, pc/mi/ln	15.1







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HCS7 Freeway Facilities Report

Project Information

Analyst	CP	Date	3/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2019)
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-60 WB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Euclid	2500	4
2	Diverge	Diverge	Off-Ramp at Euclid	1500	4
3	Basic	Basic	Between	2200	4
4	Merge	Merge	On-Ramp at Euclid	1500	4
5	Basic	Basic	West of Euclid	1500	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	8336	9548	0.87	60.3	34.6	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.952	0.820	8336	1021	9600	2100	0.87	0.49	65.1	59.1	32.0	36.3	E

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	7311	9548	0.77	64.7	28.3	D

Segment 4: Merge

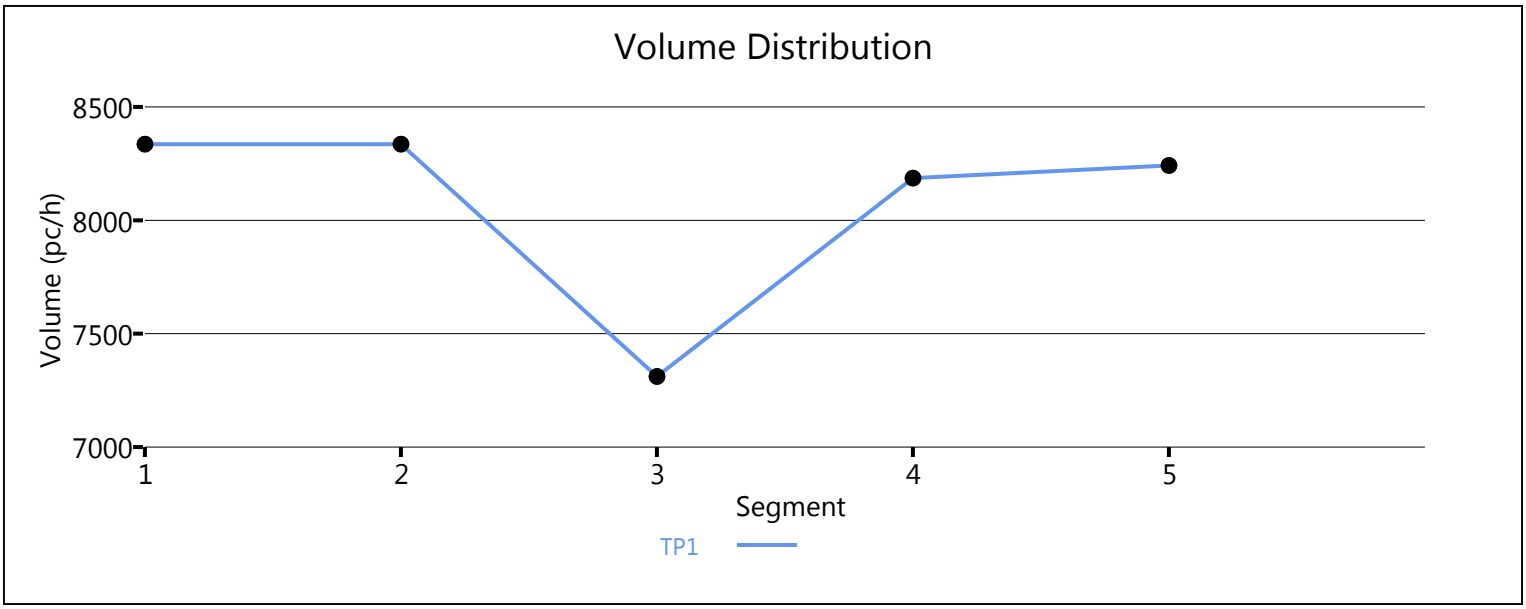
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.855	8186	875	9600	2100	0.85	0.42	61.3	58.6	33.4	28.6	D

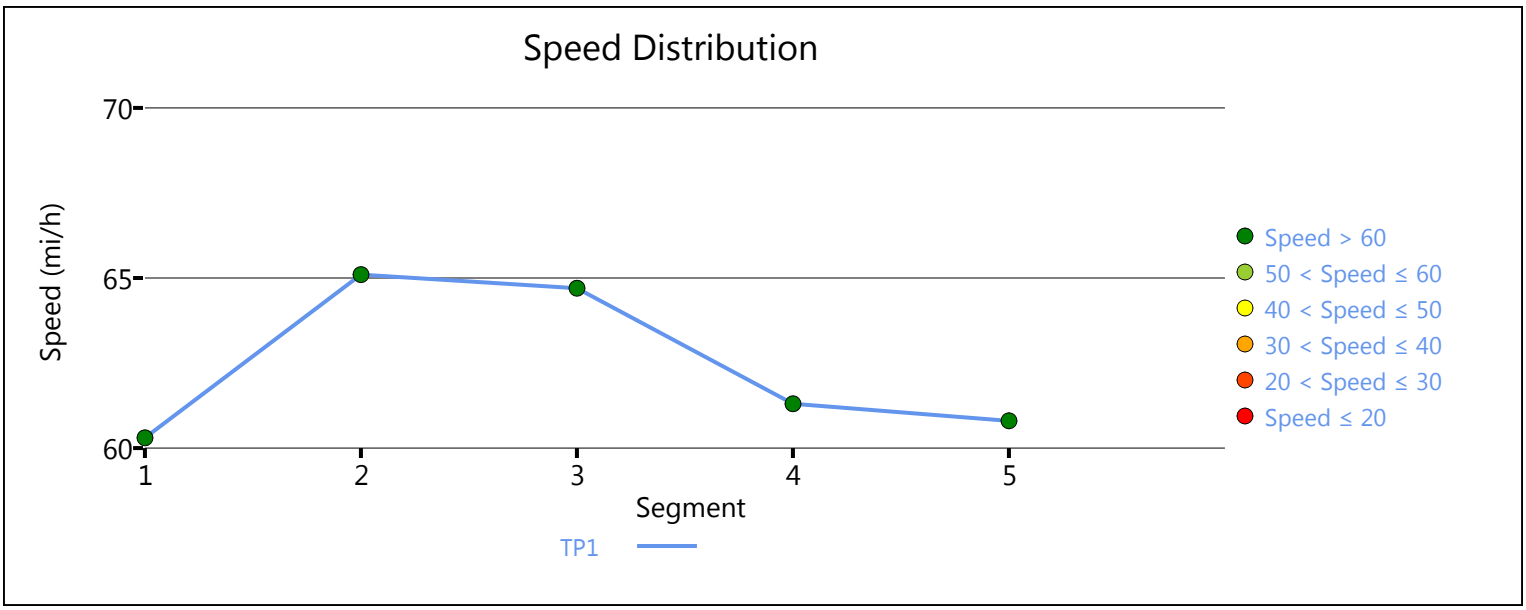
Segment 5: Basic

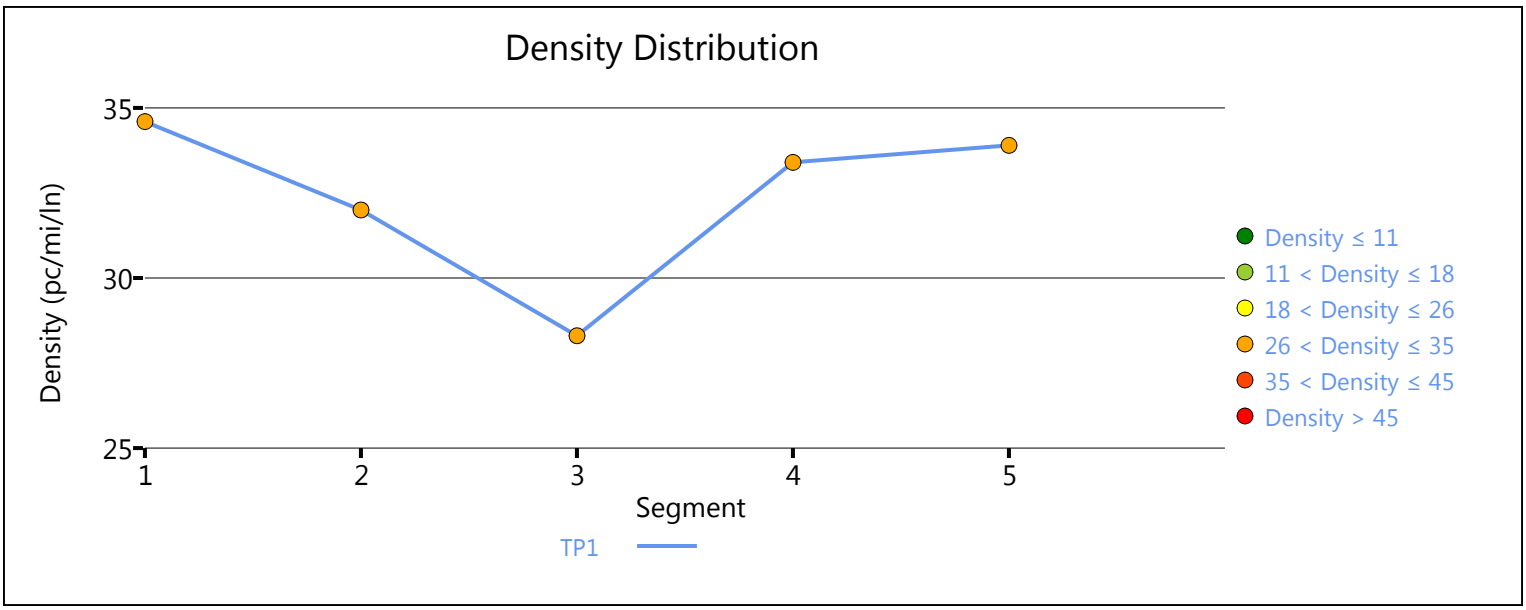
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	8242	9548	0.86	60.8	33.9	D

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	62.3	32.4	31.0	1.7	D

Facility Overall Results			
Space Mean Speed, mi/h	62.3	Density, veh/mi/ln	31.0
Average Travel Time, min	1.7	Density, pc/mi/ln	32.4







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HCS7 Freeway Facilities Report

Project Information

Analyst	CP	Date	3/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2019)
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-60 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Euclid	1370	4
2	Diverge	Diverge	Off-Ramp at Euclid	1500	4
3	Basic	Basic	Between	2100	4
4	Merge	Merge	On-Ramp at Euclid	1500	4
5	Basic	Basic	East of Euclid	3000	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	7817	9548	0.82	62.7	31.2	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.855	7817	742	9600	2100	0.81	0.35	65.8	59.8	29.7	32.2	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	7026	9548	0.74	65.6	26.8	D

Segment 4: Merge

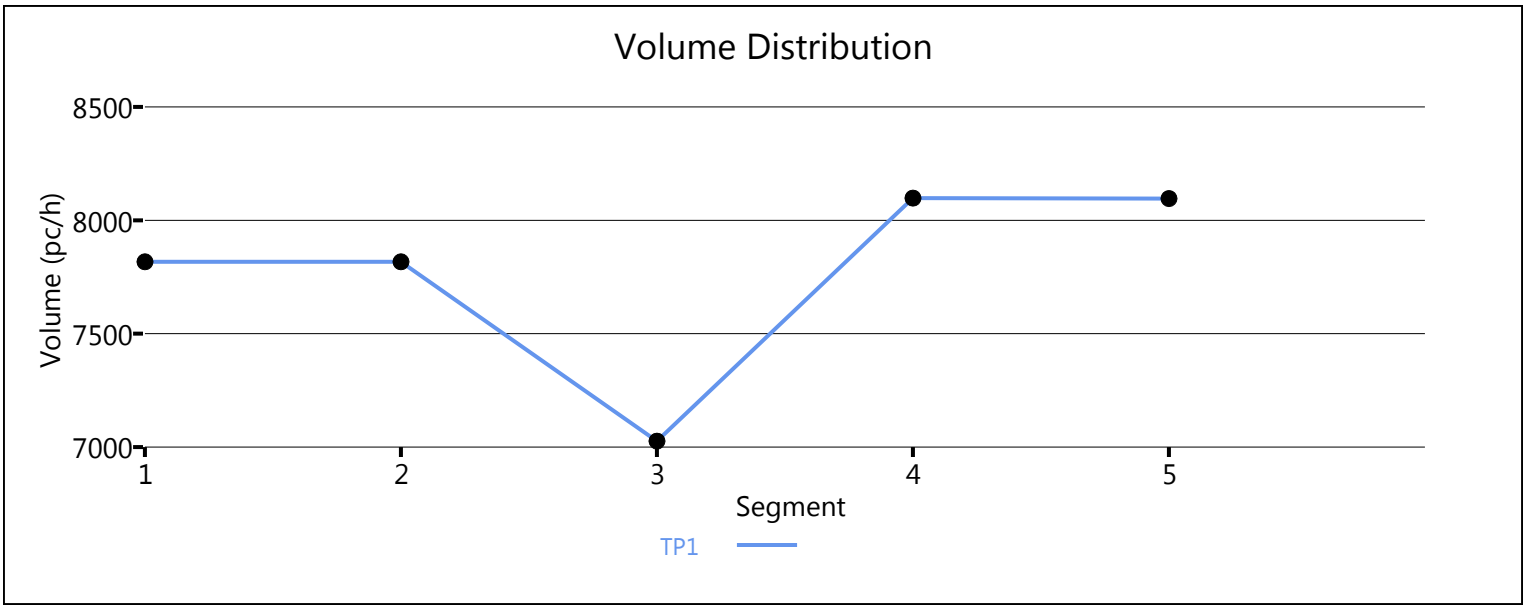
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.847	8098	1072	9600	2100	0.84	0.51	61.2	58.3	33.1	28.9	D

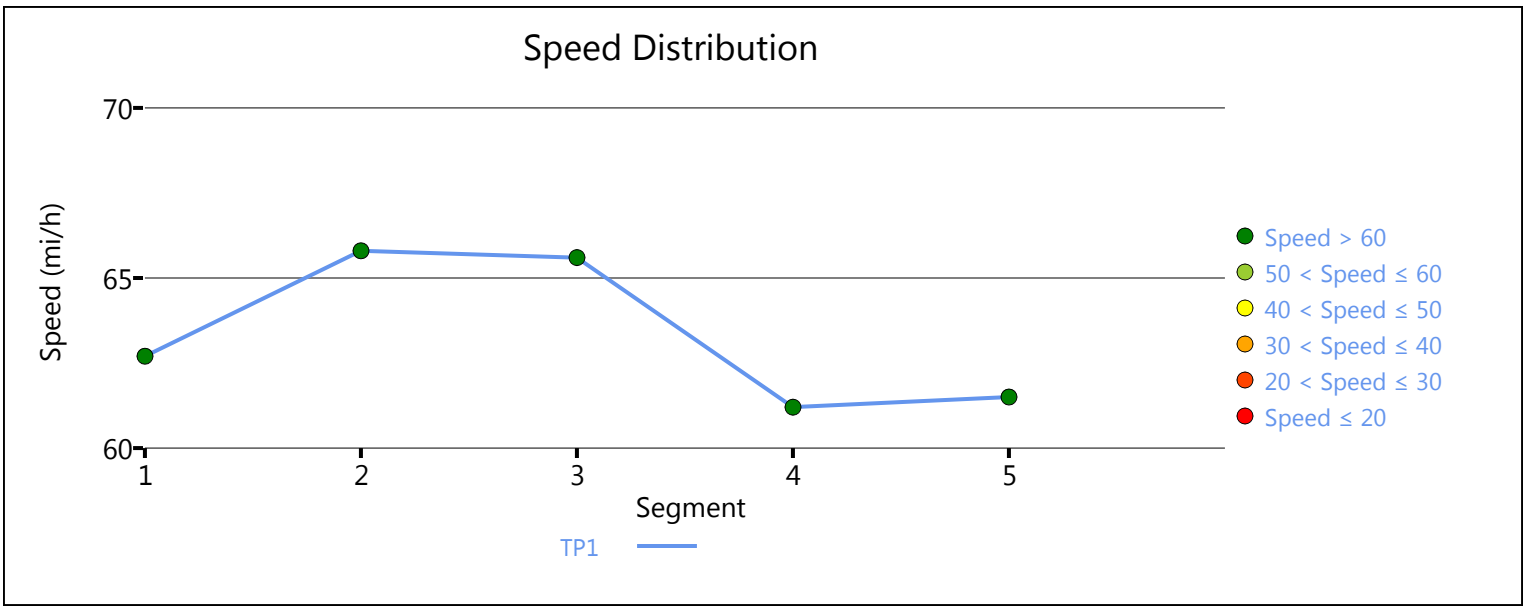
Segment 5: Basic

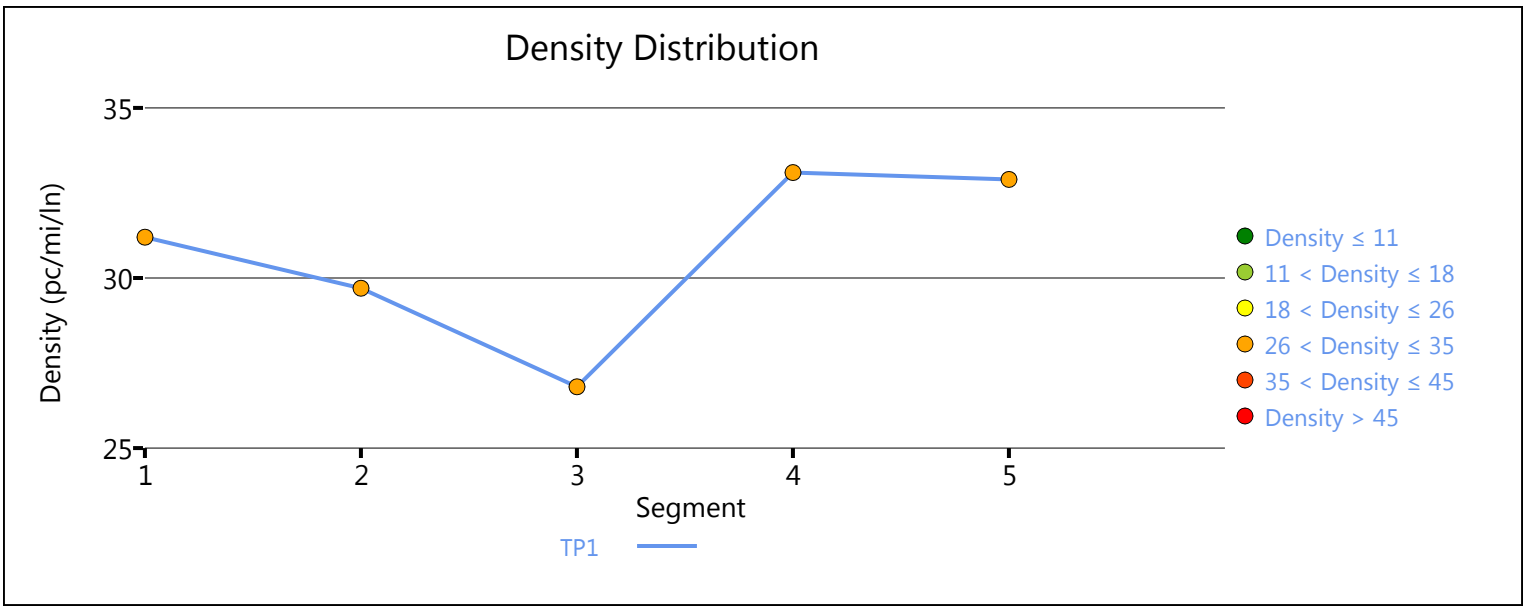
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	8096	9548	0.85	61.5	32.9	D

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	63.1	30.8	30.4	1.7	D

Facility Overall Results			
Space Mean Speed, mi/h	63.1	Density, veh/mi/ln	30.4
Average Travel Time, min	1.7	Density, pc/mi/ln	30.8







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HCS7 Freeway Facilities Report

Project Information

Analyst	CS	Date	2/13/2019
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2019)
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-71 SB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	17
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Southbound, N of Central	4275	3
2	Diverge	Diverge	Central SB Off-Ramp	1500	3
3	Basic	Basic	Cetnral SB Off-Ramp to Loop On-Ramp	1125	3
4	Merge	Merge	Central SB Loop On-Ramp	1500	3
5	Basic	Basic	Central SB Loop On-Ramp to On-Ramp	1025	3
6	Merge	Merge	Central SB On-Ramp	1500	3
7	Basic	Basic	Southbound, Central to Pine	5500	2
8	Diverge	Diverge	Pine SB Off-Ramp	1500	2
9	Basic	Basic	Pine SB Off-Ramp to On-Ramp	2315	2
10	Merge	Merge	Pine SB On-Ramp	1500	2
11	Basic	Basic	Southbound, Pine to Euclid	4500	2
12	Diverge	Diverge	Euclid SB Off-Ramp	1500	2
13	Basic	Basic	Euclid SB Off-Ramp to Loop On-Ramp	1460	2
14	Merge	Merge	Euclid SB Loop On-Ramp	1500	2
15	Basic	Basic	Euclid SB Loop On-Ramp to On-Ramp	1200	2
16	Merge	Merge	Euclid SB On-Ramp	1500	2
17	Basic	Basic	Southbound, S of Euclid	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.939	3745	7131	0.53	67.7	18.4	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	

1	0.92	0.92	0.939	0.952	3745	1819	7200	2100	0.52	0.87	60.4	57.1	20.7	28.0	C
Segment 3: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.939		1901		7116		0.27		67.2		9.4		A
Segment 4: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.939	0.952	2192	291	7200	1900	0.30	0.15	63.7	61.1	11.5	13.9	B
Segment 5: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.939		2196		7116		0.31		67.2		10.9		A
Segment 6: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.939	0.901	2270	74	7200	2100	0.32	0.04	64.1	61.5	11.8	14.0	B
Segment 7: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.939		2267		4726		0.48		66.3		17.1		B
Segment 8: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.939	0.962	2267	1129	4800	2100	0.47	0.54	58.8	58.8	19.3	22.2	C
Segment 9: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.922		1131		4718		0.24		65.9		8.6		A
Segment 10: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.922	0.926	1191	60	4800	2100	0.25	0.03	61.7	61.7	9.7	12.3	B
Segment 11: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.922		1191		4726		0.25		66.3		9.0		A
Segment 12: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**

	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.922	0.952	1191	837	4800	2100	0.25	0.40	59.6	59.6	10.0	13.2	B

Segment 13: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.892	338	4744	0.07	67.2	2.5	A

Segment 14: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.892	0.943	1079	741	4800	1900	0.22	0.39	61.4	61.4	8.8	10.4	B

Segment 15: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.922	1085	4744	0.23	67.2	8.1	A

Segment 16: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.922	0.971	1813	728	4800	2100	0.38	0.35	61.5	61.5	14.7	16.5	B

Segment 17: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.907	1882	4554	0.41	57.7	16.3	B

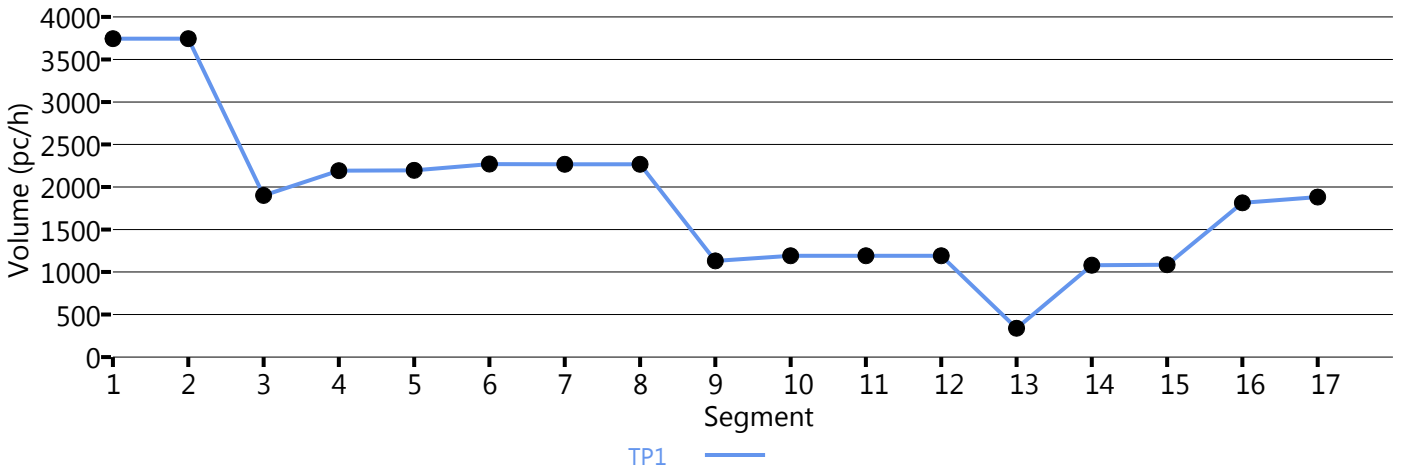
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	63.8	13.5	12.6	6.9	B

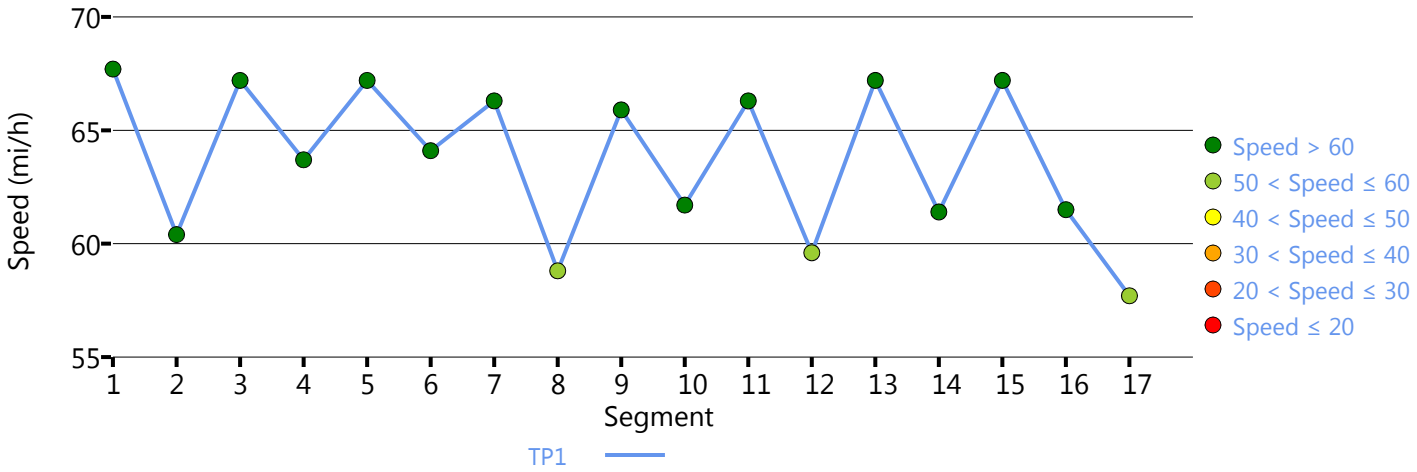
Facility Overall Results

Space Mean Speed, mi/h	63.8	Density, veh/mi/ln	12.6
Average Travel Time, min	6.9	Density, pc/mi/ln	13.5

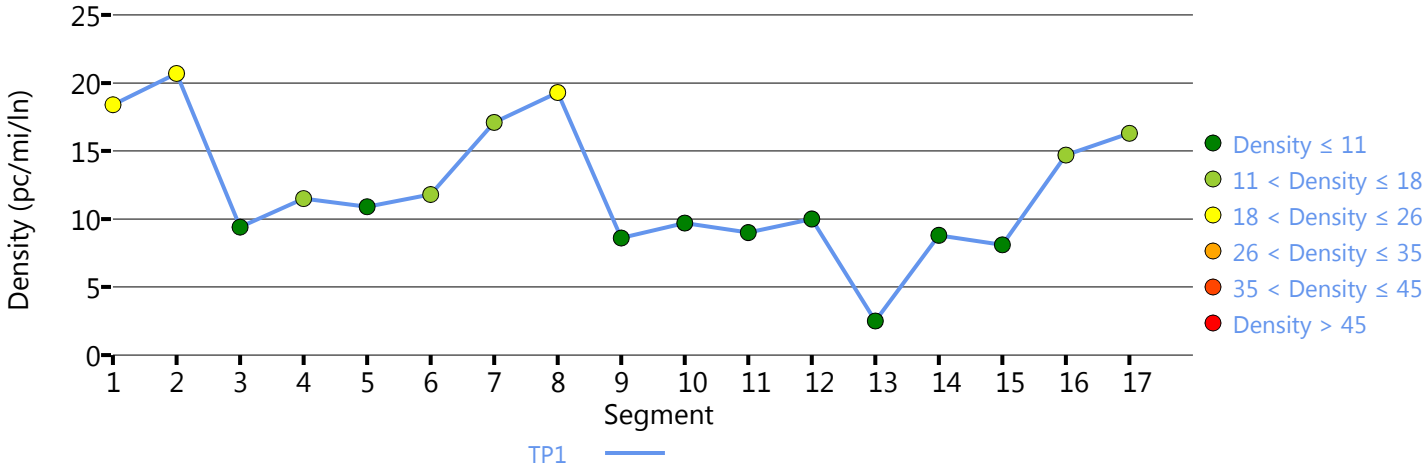
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	CS	Date	2/13/2019
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2019)
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-71 NB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	15
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Northbound, S of Euclid	5280	3
2	Diverge	Basic	Euclid NB Off-Ramp	1500	3
3	Basic	Basic	Euclid NB Off-Ramp to On-Ramp	1500	2
4	Merge	Merge	Euclid NB On-Ramp	1500	2
5	Basic	Basic	Northbound, Euclid to Pine	4500	2
6	Diverge	Diverge	Pine NB Off-Ramp	1500	2
7	Basic	Basic	Pine NB Off-Ramp to On-Ramp	2225	2
8	Merge	Basic	Pine NB On-Ramp	1500	2
9	Basic	Basic	Northbound, Pine to Central	5500	3
10	Diverge	Diverge	Central NB Off-Ramp	1500	3
11	Basic	Basic	Central NB Off-Ramp to Loop On-Ramp	1050	3
12	Merge	Merge	Central NB Loop On-Ramp	1500	3
13	Basic	Basic	Central NB Loop On-Ramp to On-Ramp	1040	3
14	Merge	Merge	Central NB On-Ramp	1500	3
15	Basic	Basic	Northbound, N of Central	4275	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.877	3282	6831	0.48	57.7	19.0	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.877	0.943	3282	1119	7200	4200	0.46	0.27	70.0	-	15.6	-	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.840		2170		4754		0.46		67.7		16.0		B
Segment 4: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.840	0.962	2713	543	4800	1900	0.57	0.29	60.3	60.3	22.5	22.2	C
Segment 5: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.862		2721		4736		0.57		66.8		20.4		C
Segment 6: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.862	0.952	2721	127	4800	2100	0.57	0.06	61.3	61.3	22.2	26.4	C
Segment 7: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.862		2581		4726		0.55		66.3		19.5		C
Segment 8: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.862	0.971	2941	360	4800	2100	0.54	0.17	69.9	-	18.5	-	C
Segment 9: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.870		2960		7089		0.42		66.3		14.9		B
Segment 10: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.870	0.909	2960	538	7200	2100	0.41	0.26	64.1	60.3	15.4	21.7	C
Segment 11: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.862		2420		7116		0.34		67.2		12.0		B
Segment 12: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.893	0.971	2805	469	7200	1900	0.39	0.25	63.3	61.0	14.8	16.5	B

Segment 13: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.885	2872	7116	0.40	67.2	14.2	B

Segment 14: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.885	0.943	3592	720	7200	2100	0.50	0.34	63.0	61.0	19.0	21.2	C

Segment 15: Basic

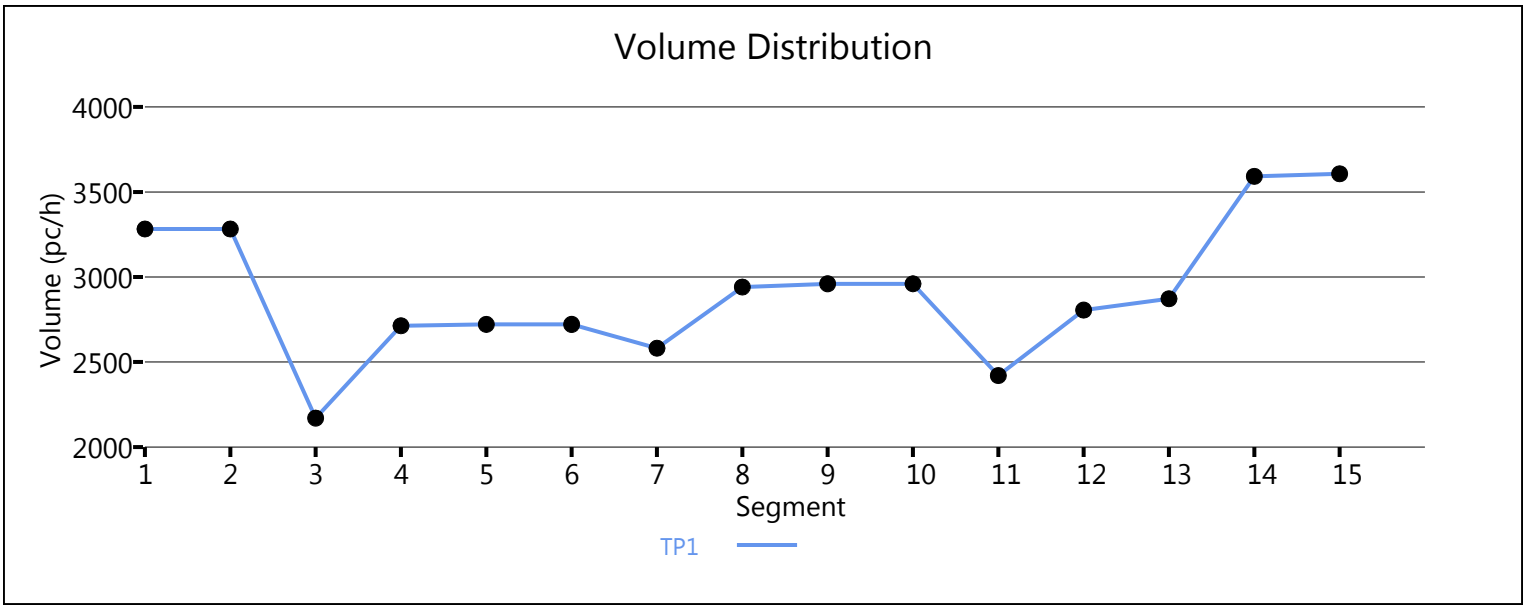
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.893	3607	7131	0.51	67.7	17.8	B

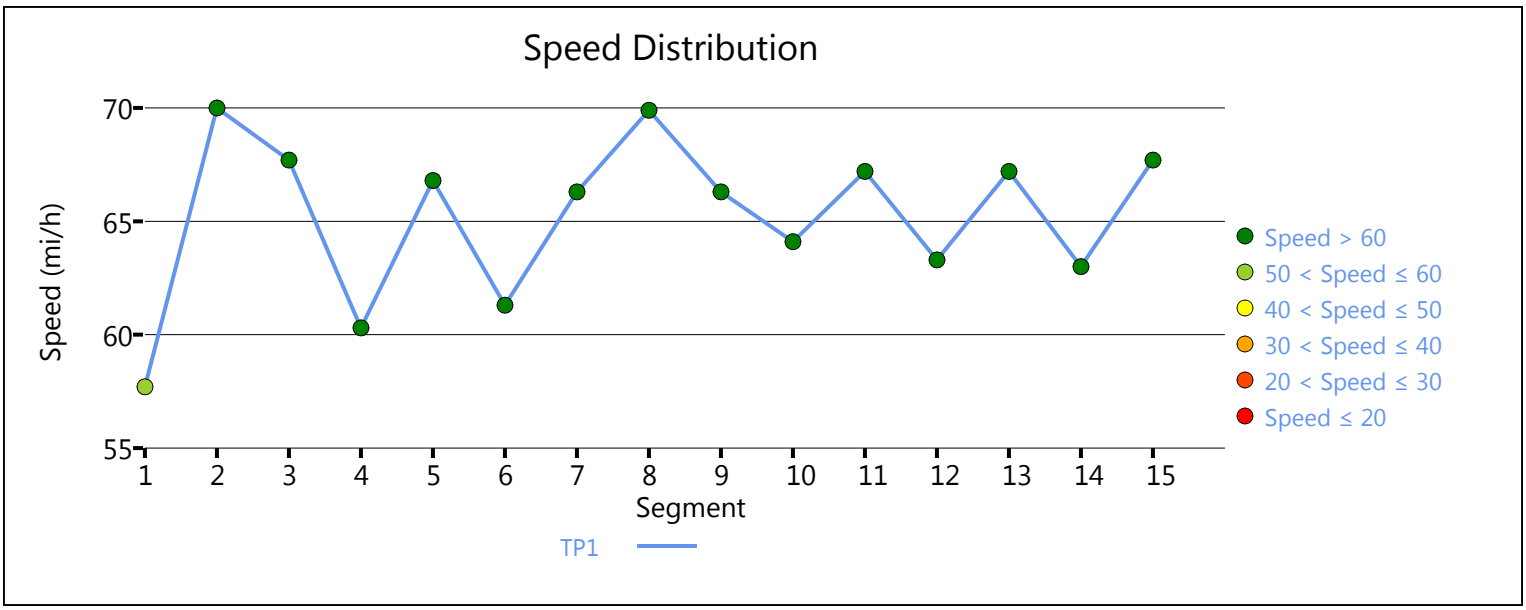
Facility Time Period Results

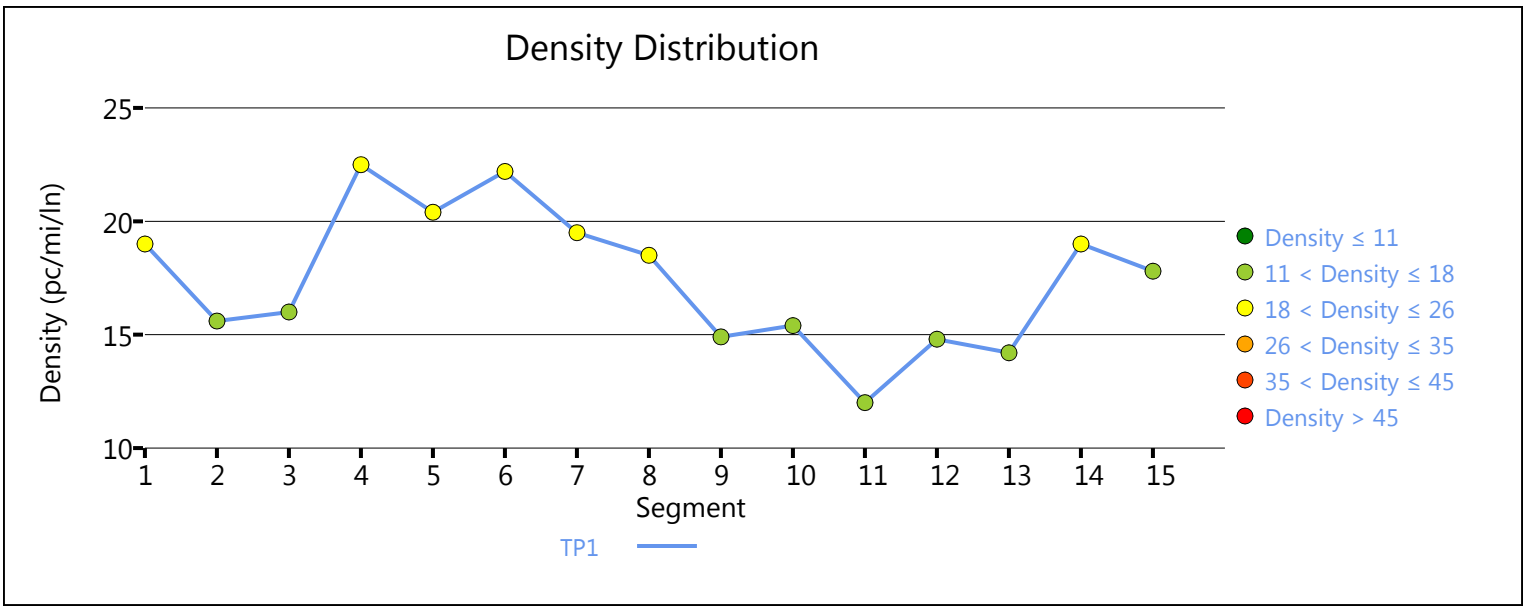
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	64.6	17.5	15.3	6.3	B

Facility Overall Results

Space Mean Speed, mi/h	64.6	Density, veh/mi/ln	15.3
Average Travel Time, min	6.3	Density, pc/mi/ln	17.5







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HCS7 Freeway Facilities Report

Project Information

Analyst	CP	Date	3/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2019)
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-60 WB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Euclid	2500	4
2	Diverge	Diverge	Off-Ramp at Euclid	1500	4
3	Basic	Basic	Between	2200	4
4	Merge	Merge	On-Ramp at Euclid	1500	4
5	Basic	Basic	West of Euclid	1500	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	8159	9548	0.85	61.2	33.3	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.870	8159	1033	9600	2100	0.85	0.49	65.2	59.1	31.3	35.7	E

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	7158	9548	0.75	65.2	27.5	D

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.901	7924	766	9600	2100	0.83	0.36	61.9	59.4	32.0	27.3	C

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	7868	9548	0.82	62.5	31.5	D

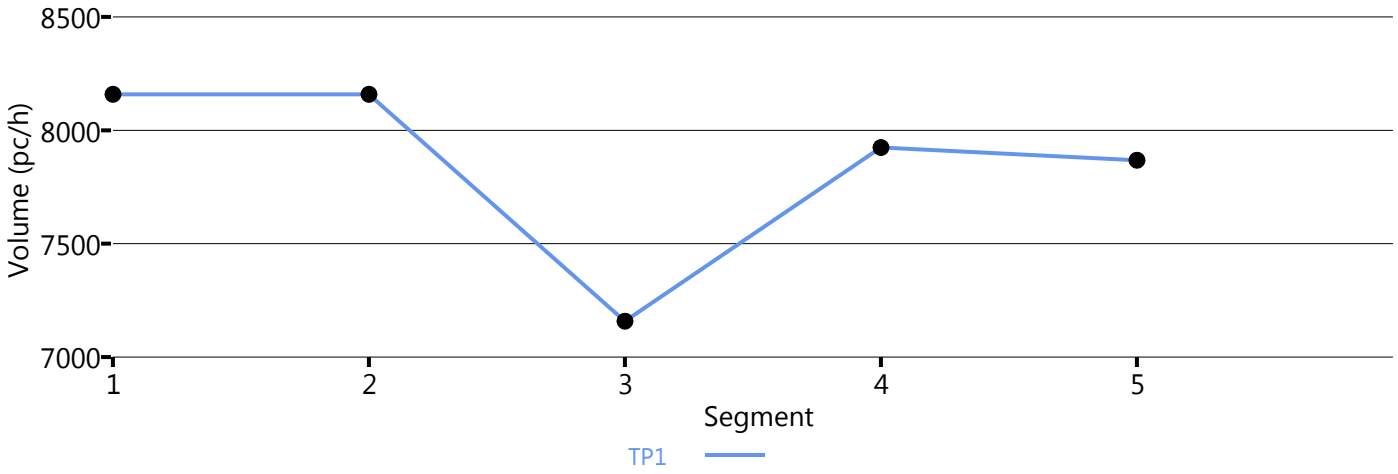
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	63.0	31.1	30.1	1.7	D

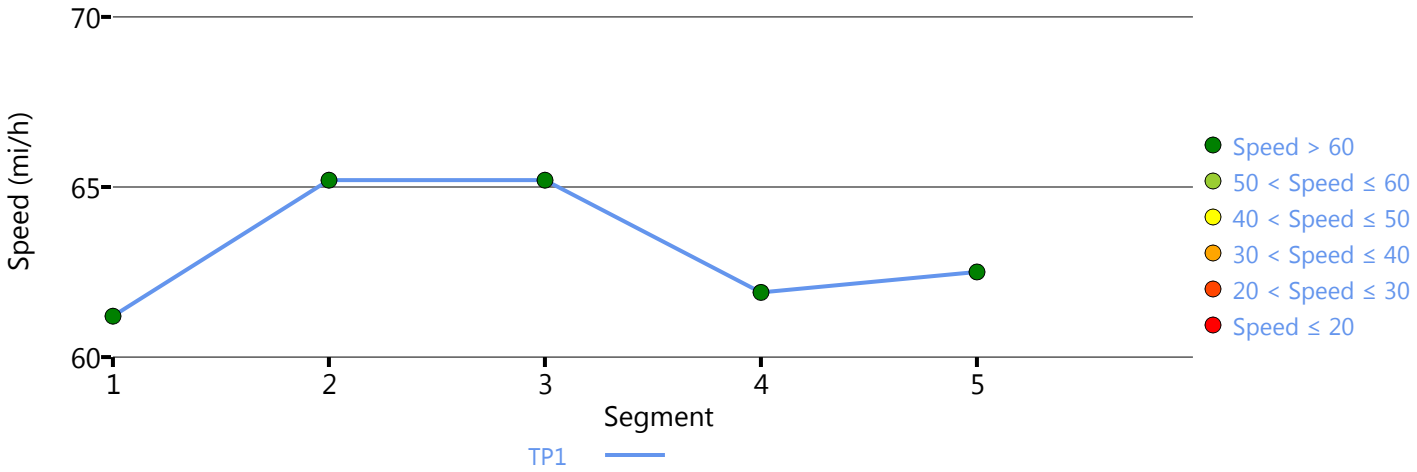
Facility Overall Results

Space Mean Speed, mi/h	63.0	Density, veh/mi/ln	30.1
Average Travel Time, min	1.7	Density, pc/mi/ln	31.1

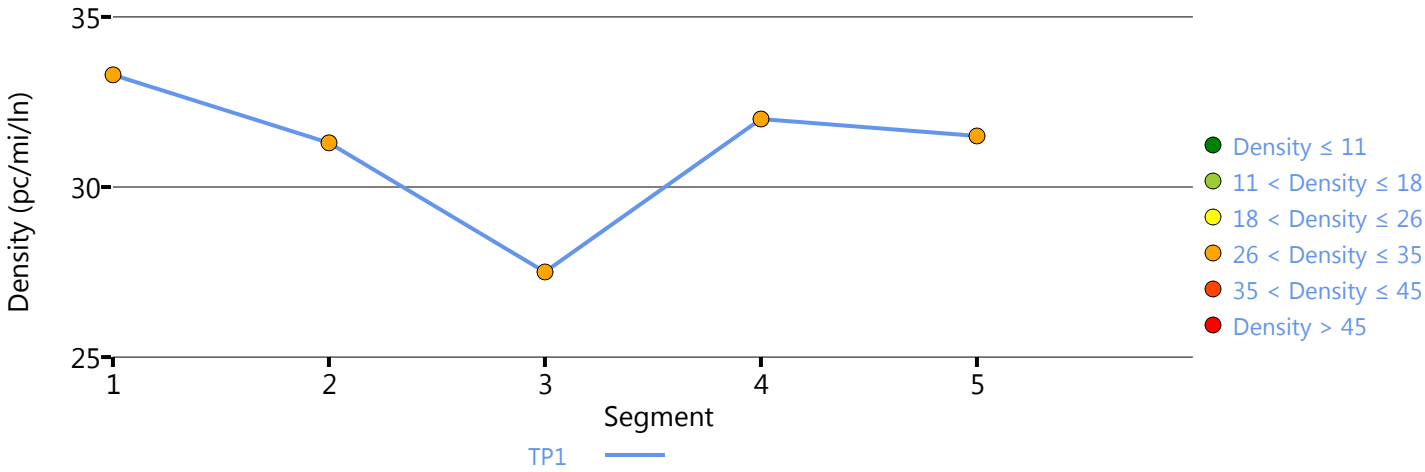
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	CP	Date	3/14/2019
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2019)
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-60 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Euclid	1370	4
2	Diverge	Diverge	Off-Ramp at Euclid	1500	4
3	Basic	Basic	Between	2100	4
4	Merge	Merge	On-Ramp at Euclid	1500	4
5	Basic	Basic	East of Euclid	3000	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	6811	9548	0.71	66.2	25.7	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.862	6811	764	9600	2100	0.71	0.36	66.1	59.7	25.8	28.5	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	6016	9548	0.63	67.9	22.2	C

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.862	6950	934	9600	2100	0.72	0.44	62.9	60.5	27.6	24.7	C

Segment 5: Basic

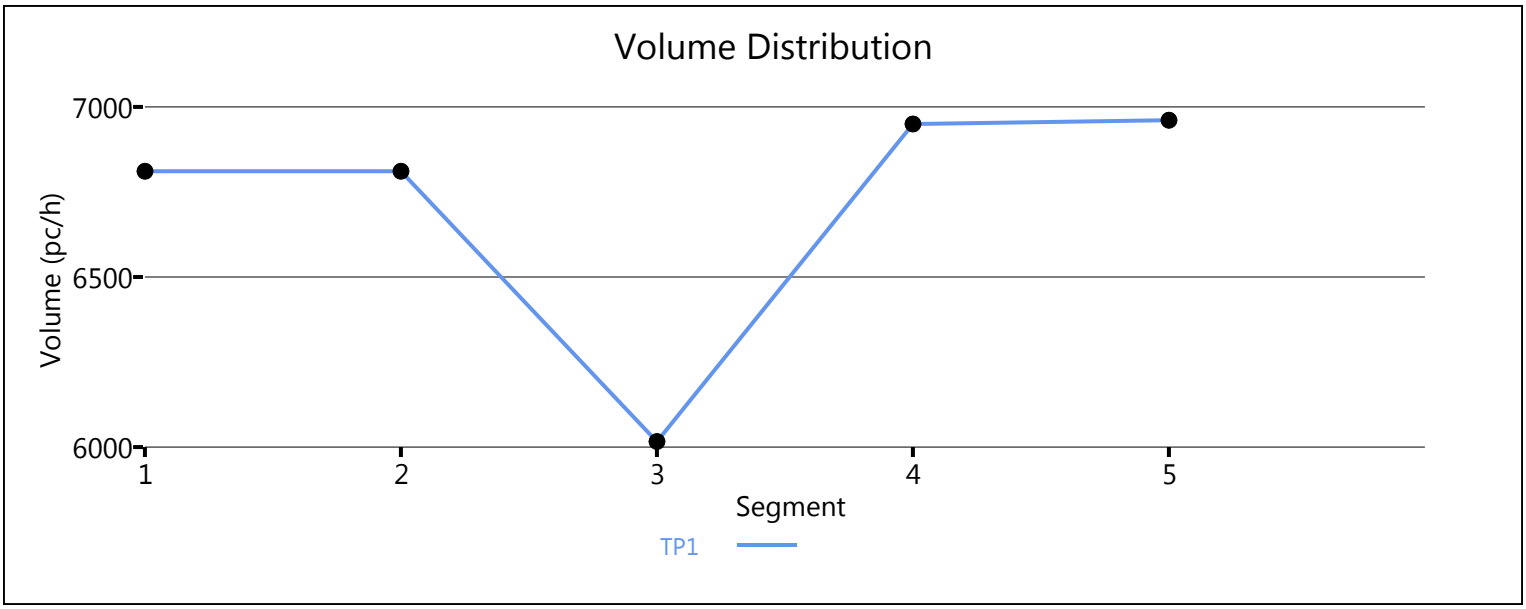
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	6961	9548	0.73	65.8	26.4	D

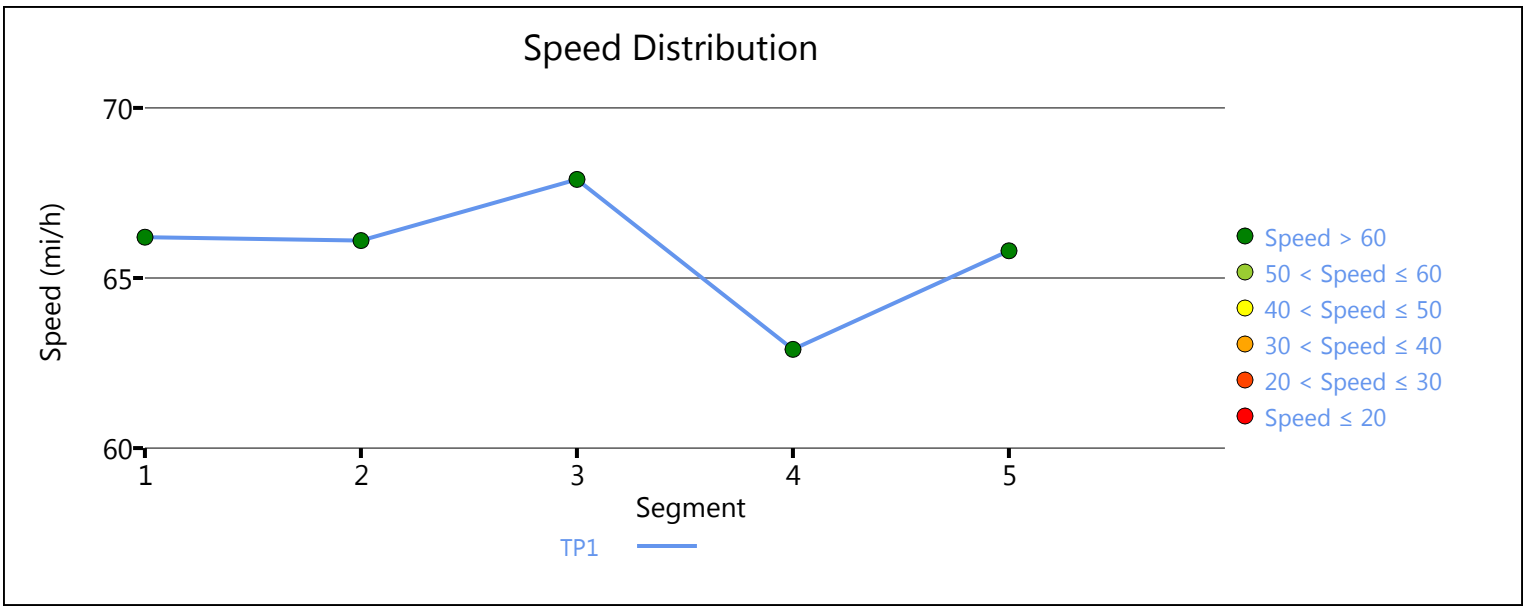
Facility Time Period Results

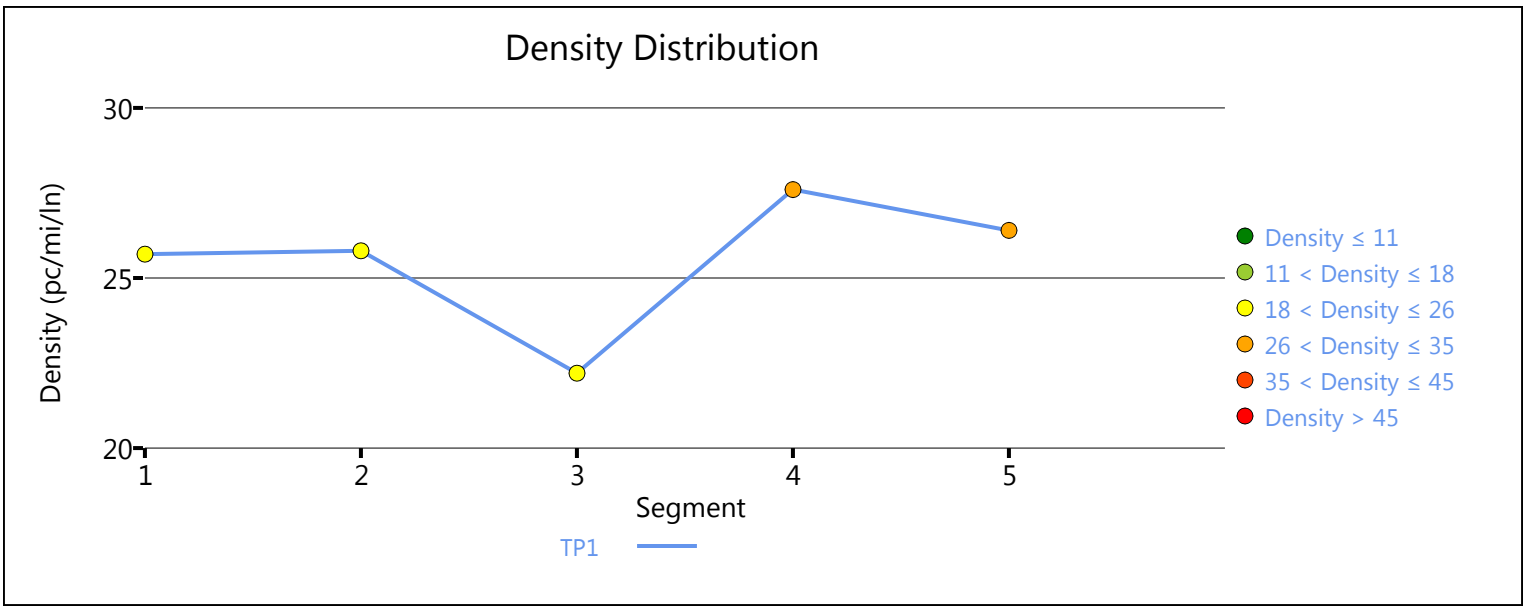
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.8	25.5	25.2	1.6	C

Facility Overall Results

Space Mean Speed, mi/h	65.8	Density, veh/mi/ln	25.2
Average Travel Time, min	1.6	Density, pc/mi/ln	25.5







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APPENDIX 3.6:

EXISTING (2019) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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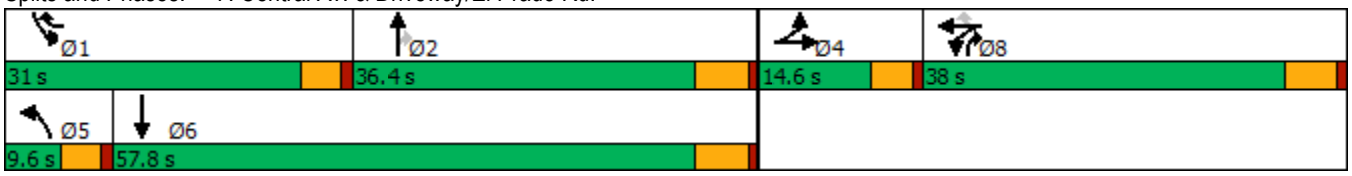
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	2	6	755	4	512	2	811	505	251	695
Future Volume (vph)	2	6	755	4	512	2	811	505	251	695
Turn Type	Split	NA	Split	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	4	4	8	8	1	5	2	8	1	6
Permitted Phases					8			2		
Detector Phase	4	4	8	8	1	5	2	8	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	34.8	34.8	9.6	9.6	27.8	34.8	9.6	24.8
Total Split (s)	14.6	14.6	38.0	38.0	31.0	9.6	36.4	38.0	31.0	57.8
Total Split (%)	12.2%	12.2%	31.7%	31.7%	25.8%	8.0%	30.3%	31.7%	25.8%	48.2%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	5.8	4.6	4.6	5.8	5.8	4.6	5.8
Lead/Lag					Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	None	Max
Act Effct Green (s)	10.1	10.1	30.2	30.2	48.5	5.1	37.1	67.3	12.5	52.6
Actuated g/C Ratio	0.10	0.10	0.31	0.31	0.49	0.05	0.38	0.68	0.13	0.53
v/c Ratio	0.01	0.04	0.82	0.78	0.59	0.02	0.64	0.43	0.65	0.28
Control Delay	45.5	43.0	48.3	44.5	11.2	50.5	29.9	1.8	49.8	14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.5	43.0	48.3	44.5	11.2	50.5	29.9	1.8	49.8	14.3
LOS	D	D	D	D	B	D	C	A	D	B
Approach Delay		43.6		32.2			19.2			23.6
Approach LOS		D		C			B			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 98.5	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 25.1	Intersection LOS: C
Intersection Capacity Utilization 78.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 7: Central Av. & Driveway/El Prado Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	6	1	755	4	512	2	811	505	251	695	11
Future Volume (veh/h)	2	6	1	755	4	512	2	811	505	251	695	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	2	6	0	773	0	305	2	828	341	256	709	8
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	32	36	0	856	0	560	4	1399	1019	323	2551	29
Arrive On Green	0.02	0.02	0.00	0.26	0.00	0.26	0.00	0.41	0.41	0.10	0.51	0.51
Sat Flow, veh/h	1619	1800	0	3238	0	1525	1619	3420	1505	3141	5008	56
Grp Volume(v), veh/h	2	6	0	773	0	305	2	828	341	256	464	253
Grp Sat Flow(s),veh/h/ln	1619	1800	0	1619	0	1525	1619	1710	1505	1570	1638	1788
Q Serve(g_s), s	0.1	0.3	0.0	23.6	0.0	16.1	0.1	19.3	9.8	8.1	8.3	8.3
Cycle Q Clear(g_c), s	0.1	0.3	0.0	23.6	0.0	16.1	0.1	19.3	9.8	8.1	8.3	8.3
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	32	36	0	856	0	560	4	1399	1019	323	1669	911
V/C Ratio(X)	0.06	0.17	0.00	0.90	0.00	0.54	0.46	0.59	0.33	0.79	0.28	0.28
Avail Cap(c_a), veh/h	159	176	0	1021	0	638	79	1399	1019	812	1669	911
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.1	49.2	0.0	36.3	0.0	25.5	50.8	23.5	7.0	44.7	14.3	14.3
Incr Delay (d2), s/veh	0.3	0.8	0.0	9.0	0.0	0.3	25.2	1.8	0.9	1.7	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.2	0.0	9.8	0.0	5.4	0.1	7.6	6.1	3.1	2.9	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.4	50.0	0.0	45.3	0.0	25.9	76.1	25.4	7.9	46.4	14.7	15.1
LnGrp LOS	D	D	A	D	A	C	E	C	A	D	B	B
Approach Vol, veh/h		8			1078			1171			973	
Approach Delay, s/veh		49.9			39.8			20.4			23.1	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.1	47.6		6.6	4.9	57.8		32.8				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		5.8				
Max Green Setting (Gmax), s	26.4	30.6		10.0	5.0	52.0		32.2				
Max Q Clear Time (g_c+I1), s	10.1	21.3		2.3	2.1	10.3		25.6				
Green Ext Time (p_c), s	0.4	4.4		0.0	0.0	4.6		1.4				

Intersection Summary			
HCM 6th Ctrl Delay		27.8	
HCM 6th LOS		C	

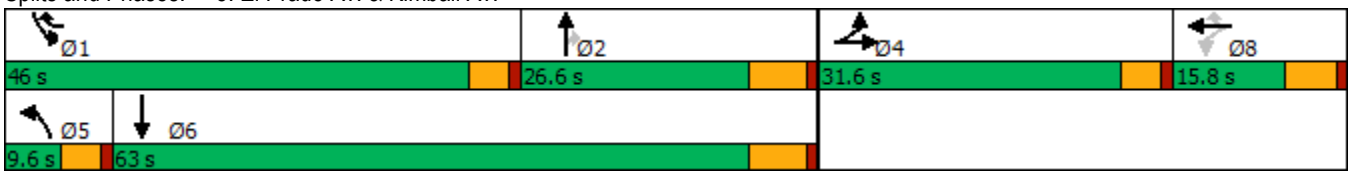
Notes

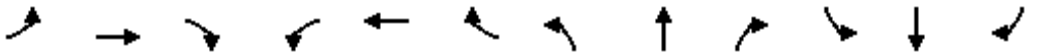
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	22	4	31	16	759	6	274	30	386	235
Future Volume (vph)	22	4	31	16	759	6	274	30	386	235
Turn Type	Split	NA	Perm	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	4	4		8	1	5	2		1	6
Permitted Phases			8		8			2		
Detector Phase	4	4	8	8	1	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	15.8	15.8	9.6	9.6	16.2	16.2	9.6	24.2
Total Split (s)	31.6	31.6	15.8	15.8	46.0	9.6	26.6	26.6	46.0	63.0
Total Split (%)	26.3%	26.3%	13.2%	13.2%	38.3%	8.0%	22.2%	22.2%	38.3%	52.5%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		5.8	4.6	4.6	6.2	6.2	4.6	6.2
Lead/Lag					Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Max	None	None	None	Max	Max
Act Effct Green (s)	13.1	13.1		10.5	51.7	5.3	20.0	20.0	43.5	70.1
Actuated g/C Ratio	0.14	0.14		0.11	0.55	0.06	0.21	0.21	0.47	0.75
v/c Ratio	0.10	0.03		0.31	0.72	0.07	0.75	0.07	0.28	0.22
Control Delay	40.5	31.9		51.4	8.9	53.2	51.3	0.3	20.5	10.0
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.5	31.9		51.4	8.9	53.2	51.3	0.3	20.5	10.0
LOS	D	C		D	A	D	D	A	C	B
Approach Delay		38.5		11.4			46.4			16.1
Approach LOS		D		B			D			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 93.2	
Natural Cycle: 85	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 19.6	Intersection LOS: B
Intersection Capacity Utilization 86.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 8: El Prado Av. & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	4	3	31	16	759	6	274	30	386	235	38
Future Volume (veh/h)	22	4	3	31	16	759	6	274	30	386	235	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	23	4	2	33	17	402	6	288	32	406	247	37
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	91	64	32	121	62	823	12	328	278	1364	928	139
Arrive On Green	0.06	0.06	0.06	0.10	0.10	0.10	0.01	0.18	0.18	0.43	0.61	0.61
Sat Flow, veh/h	1619	1132	566	1150	592	1525	1619	1800	1525	3141	1525	228
Grp Volume(v), veh/h	23	0	6	50	0	402	6	288	32	406	0	284
Grp Sat Flow(s),veh/h/ln	1619	0	1698	1742	0	1525	1619	1800	1525	1570	0	1753
Q Serve(g_s), s	1.3	0.0	0.3	2.5	0.0	10.0	0.4	14.8	1.7	8.0	0.0	7.2
Cycle Q Clear(g_c), s	1.3	0.0	0.3	2.5	0.0	10.0	0.4	14.8	1.7	8.0	0.0	7.2
Prop In Lane	1.00		0.33	0.66		1.00	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	91	0	95	183	0	823	12	328	278	1364	0	1067
V/C Ratio(X)	0.25	0.00	0.06	0.27	0.00	0.49	0.48	0.88	0.12	0.30	0.00	0.27
Avail Cap(c_a), veh/h	459	0	481	183	0	823	85	385	326	1364	0	1067
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.1	0.0	42.6	39.3	0.0	13.7	47.1	38.0	32.6	17.5	0.0	8.7
Incr Delay (d2), s/veh	1.4	0.0	0.3	0.8	0.0	0.5	10.3	18.1	0.2	0.6	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.1	1.1	0.0	4.8	0.2	7.8	0.6	2.7	0.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.5	0.0	42.9	40.1	0.0	14.2	57.4	56.0	32.7	18.1	0.0	9.3
LnGrp LOS	D	A	D	D	A	B	E	E	C	B	A	A
Approach Vol, veh/h		29			452			326			690	
Approach Delay, s/veh		44.2			17.1			53.8			14.5	
Approach LOS		D			B			D			B	

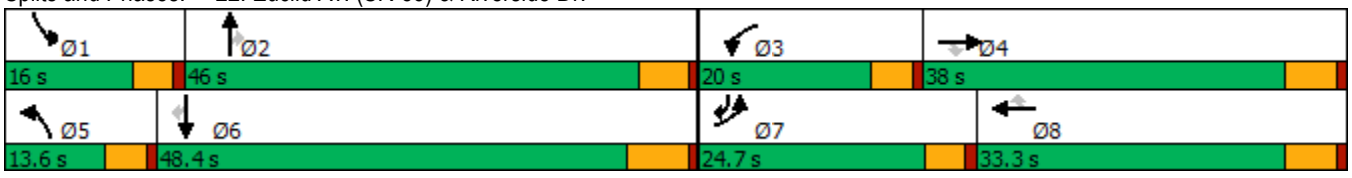
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	46.0	23.6		10.0	5.3	64.2		15.8				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		5.8				
Max Green Setting (Gmax), s	41.4	20.4		27.0	5.0	56.8		10.0				
Max Q Clear Time (g_c+I1), s	10.0	16.8		3.3	2.4	9.2		12.0				
Green Ext Time (p_c), s	0.7	0.5		0.1	0.0	1.6		0.0				

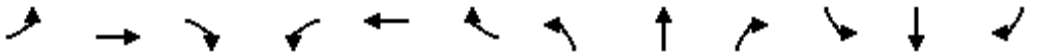
Intersection Summary			
HCM 6th Ctrl Delay		24.4	
HCM 6th LOS		C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	153	311	49	187	488	115	66	909	155	174	940	152
Future Volume (vph)	153	311	49	187	488	115	66	909	155	174	940	152
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	25.8	25.8	9.6	31.8	31.8	9.6	30.4	30.4	9.6	34.5	9.6
Total Split (s)	24.7	38.0	38.0	20.0	33.3	33.3	13.6	46.0	46.0	16.0	48.4	24.7
Total Split (%)	20.6%	31.7%	31.7%	16.7%	27.8%	27.8%	11.3%	38.3%	38.3%	13.3%	40.3%	20.6%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	None
Act Effct Green (s)	15.0	24.9	24.9	15.3	25.2	25.2	7.9	40.7	40.7	11.4	45.2	62.1
Actuated g/C Ratio	0.13	0.22	0.22	0.14	0.22	0.22	0.07	0.36	0.36	0.10	0.40	0.55
v/c Ratio	0.75	0.82	0.12	0.90	0.67	0.26	0.61	0.78	0.25	1.12	0.72	0.18
Control Delay	68.8	59.3	0.6	88.8	45.4	3.9	74.8	38.1	5.4	154.3	34.2	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.8	59.3	0.6	88.8	45.4	3.9	74.8	38.1	5.4	154.3	34.2	4.0
LOS	E	E	A	F	D	A	E	D	A	F	C	A
Approach Delay		56.5			49.7			35.7			47.1	
Approach LOS		E			D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 112.8	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.12	
Intersection Signal Delay: 45.5	Intersection LOS: D
Intersection Capacity Utilization 83.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 22: Euclid Av. (SR-83) & Riverside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	311	49	187	488	115	66	909	155	174	940	152
Future Volume (veh/h)	153	311	49	187	488	115	66	909	155	174	940	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	161	327	36	197	514	92	69	957	123	183	989	101
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	187	371	314	222	777	347	86	1241	554	165	1408	804
Arrive On Green	0.12	0.21	0.21	0.14	0.23	0.23	0.05	0.36	0.36	0.10	0.41	0.41
Sat Flow, veh/h	1619	1800	1525	1619	3420	1525	1619	3420	1525	1619	3420	1524
Grp Volume(v), veh/h	161	327	36	197	514	92	69	957	123	183	989	101
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1619	1710	1525	1619	1710	1525	1619	1710	1524
Q Serve(g_s), s	10.9	19.7	2.1	13.4	15.3	5.5	4.7	27.7	6.3	11.4	26.8	3.8
Cycle Q Clear(g_c), s	10.9	19.7	2.1	13.4	15.3	5.5	4.7	27.7	6.3	11.4	26.8	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	187	371	314	222	777	347	86	1241	554	165	1408	804
V/C Ratio(X)	0.86	0.88	0.11	0.89	0.66	0.27	0.80	0.77	0.22	1.11	0.70	0.13
Avail Cap(c_a), veh/h	291	518	439	223	841	375	130	1241	554	165	1408	804
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.6	43.1	36.1	47.4	39.3	35.5	52.4	31.5	24.7	50.2	27.2	13.4
Incr Delay (d2), s/veh	9.2	12.4	0.2	31.1	1.7	0.4	10.3	4.7	0.9	102.4	3.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	9.7	0.8	7.1	6.4	2.0	2.1	11.3	2.3	9.2	11.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.7	55.5	36.3	78.6	41.0	35.9	62.7	36.2	25.6	152.6	30.2	13.7
LnGrp LOS	E	E	D	E	D	D	E	D	C	F	C	B
Approach Vol, veh/h		524			803			1149			1273	
Approach Delay, s/veh		54.9			49.7			36.7			46.5	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	47.1	19.9	28.8	10.5	52.6	17.5	31.2
Change Period (Y+Rc), s	4.6	* 6.5	4.6	5.8	4.6	6.5	4.6	5.8
Max Green Setting (Gmax), s	11.4	* 41	15.4	32.2	9.0	41.9	20.1	27.5
Max Q Clear Time (g_c+I1), s	13.4	29.7	15.4	21.7	6.7	28.8	12.9	17.3
Green Ext Time (p_c), s	0.0	4.6	0.0	1.3	0.0	5.7	0.1	2.5

Intersection Summary	
HCM 6th Ctrl Delay	45.3
HCM 6th LOS	D

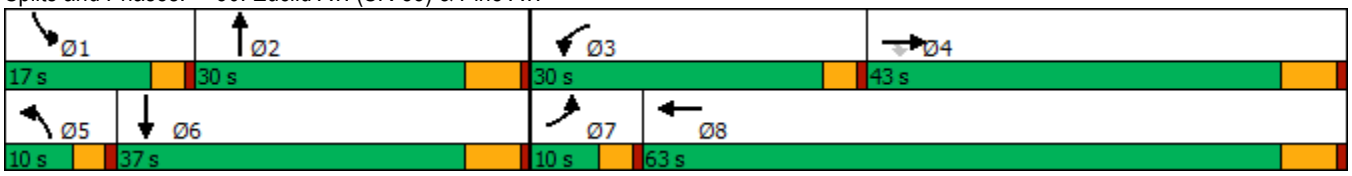
Notes

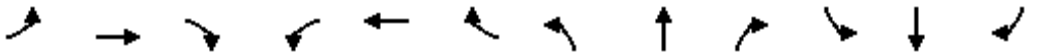
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	8	173	47	981	306	51	612	650	34	617
Future Volume (vph)	8	173	47	981	306	51	612	650	34	617
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Free	Prot	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases			4					Free		
Detector Phase	7	4	4	3	8	5	2		1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	9.0	43.0	43.0	9.0	45.0	9.0	11.0		9.0	29.0
Total Split (s)	10.0	43.0	43.0	30.0	63.0	10.0	30.0		17.0	37.0
Total Split (%)	8.3%	35.8%	35.8%	25.0%	52.5%	8.3%	25.0%		14.2%	30.8%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0		3.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	4.0	6.0		4.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Min		None	Min
Act Effct Green (s)	5.4	17.6	17.6	27.0	47.2	5.9	23.5	91.1	6.8	22.3
Actuated g/C Ratio	0.06	0.19	0.19	0.30	0.52	0.06	0.26	1.00	0.07	0.24
v/c Ratio	0.08	0.51	0.11	1.16	0.37	0.50	0.72	0.44	0.29	0.78
Control Delay	50.8	39.0	0.5	116.8	16.4	64.2	38.1	0.9	51.7	40.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.8	39.0	0.5	116.8	16.4	64.2	38.1	0.9	51.7	40.5
LOS	D	D	A	F	B	E	D	A	D	D
Approach Delay		31.5			91.5		20.8			41.1
Approach LOS		C			F		C			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 91.1	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.16	
Intersection Signal Delay: 51.7	Intersection LOS: D
Intersection Capacity Utilization 82.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 30: Euclid Av. (SR-83) & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	173	47	981	306	25	51	612	650	34	617	16
Future Volume (veh/h)	8	173	47	981	306	25	51	612	650	34	617	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1600	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	8	178	0	1011	315	24	53	631	0	35	636	12
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	17	246		993	764	58	71	803		55	773	15
Arrive On Green	0.01	0.14	0.00	0.34	0.46	0.46	0.04	0.23	0.00	0.03	0.23	0.23
Sat Flow, veh/h	1619	1800	1525	2956	1652	126	1619	3420	1525	1619	3434	65
Grp Volume(v), veh/h	8	178	0	1011	0	339	53	631	0	35	317	331
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1478	0	1777	1619	1710	1525	1619	1710	1788
Q Serve(g_s), s	0.4	7.3	0.0	26.0	0.0	9.8	2.5	13.4	0.0	1.7	13.6	13.6
Cycle Q Clear(g_c), s	0.4	7.3	0.0	26.0	0.0	9.8	2.5	13.4	0.0	1.7	13.6	13.6
Prop In Lane	1.00		1.00	1.00		0.07	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	17	246		993	0	822	71	803		55	385	402
V/C Ratio(X)	0.48	0.72		1.02	0.00	0.41	0.75	0.79		0.63	0.82	0.82
Avail Cap(c_a), veh/h	125	860		993	0	1308	125	1060		272	685	716
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	32.0	0.0	25.7	0.0	13.8	36.6	27.8	0.0	36.9	28.5	28.5
Incr Delay (d2), s/veh	7.9	5.6	0.0	33.3	0.0	0.5	5.7	2.1	0.0	4.4	1.7	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	3.3	0.0	12.4	0.0	3.4	1.0	5.0	0.0	0.7	5.1	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.0	37.6	0.0	59.0	0.0	14.3	42.2	29.9	0.0	41.3	30.2	30.2
LnGrp LOS	D	D		F	A	B	D	C		D	C	C
Approach Vol, veh/h		186	A		1350			684	A		683	
Approach Delay, s/veh		38.0			47.8			30.8			30.8	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.6	24.2	30.0	16.6	7.4	23.4	4.8	41.8
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	13.0	24.0	26.0	37.0	6.0	31.0	6.0	57.0
Max Q Clear Time (g_c+I1), s	3.7	15.4	28.0	9.3	4.5	15.6	2.4	11.8
Green Ext Time (p_c), s	0.0	1.6	0.0	1.3	0.0	1.8	0.0	2.9

Intersection Summary	
HCM 6th Ctrl Delay	39.1
HCM 6th LOS	D

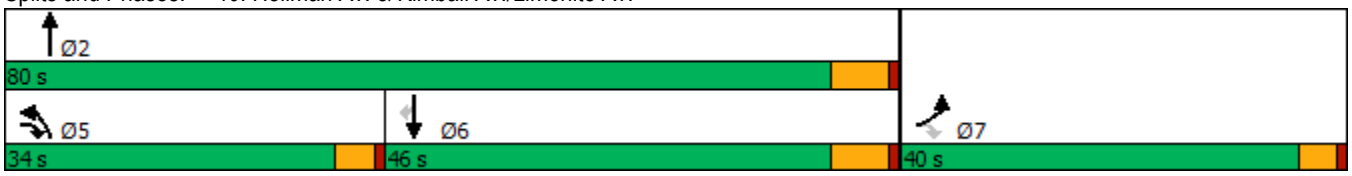
Notes

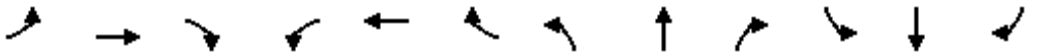
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	18	288	880	49	28	13
Future Volume (vph)	18	288	880	49	28	13
Turn Type	Prot	pm+ov	Prot	NA	NA	Perm
Protected Phases	7	5	5	2	6	
Permitted Phases		7				6
Detector Phase	7	5	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	10.0	10.0	10.0
Minimum Split (s)	9.5	9.6	9.6	16.2	43.2	43.2
Total Split (s)	40.0	34.0	34.0	80.0	46.0	46.0
Total Split (%)	33.3%	28.3%	28.3%	66.7%	38.3%	38.3%
Yellow Time (s)	3.5	3.6	3.6	5.2	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.6	4.6	6.2	6.2	6.2
Lead/Lag		Lead	Lead		Lag	Lag
Lead-Lag Optimize?		Yes	Yes		Yes	Yes
Recall Mode	None	Max	Max	Max	None	None
Act Effct Green (s)	6.7	63.3	58.3	86.4	28.0	28.0
Actuated g/C Ratio	0.07	0.67	0.62	0.92	0.30	0.30
v/c Ratio	0.17	0.27	0.48	0.02	0.03	0.03
Control Delay	43.3	2.6	20.7	1.3	17.1	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.3	2.6	20.7	1.3	17.1	0.1
LOS	D	A	C	A	B	A
Approach Delay				19.7	11.6	
Approach LOS				B	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 93.9	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.48	
Intersection Signal Delay: 15.9	Intersection LOS: B
Intersection Capacity Utilization 46.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 40: Hellman Av. & Kimball Av./Limonite Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	0	288	0	0	0	880	49	0	0	28	13
Future Volume (veh/h)	18	0	288	0	0	0	880	49	0	0	28	13
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1700	0	1800				1700	1800	0	0	1800	1800
Adj Flow Rate, veh/h	19	0	303				926	52	0	0	29	14
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	266	0	694				913	2495	0	0	1346	600
Arrive On Green	0.16	0.00	0.16				0.29	0.73	0.00	0.00	0.39	0.39
Sat Flow, veh/h	1619	0	1525				3141	3510	0	0	3510	1525
Grp Volume(v), veh/h	19	0	303				926	52	0	0	29	14
Grp Sat Flow(s),veh/h/ln	1619	0	1525				1570	1710	0	0	1710	1525
Q Serve(g_s), s	1.0	0.0	13.7				29.4	0.4	0.0	0.0	0.5	0.6
Cycle Q Clear(g_c), s	1.0	0.0	13.7				29.4	0.4	0.0	0.0	0.5	0.6
Prop In Lane	1.00		1.00				1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	266	0	694				913	2495	0	0	1346	600
V/C Ratio(X)	0.07	0.00	0.44				1.01	0.02	0.00	0.00	0.02	0.02
Avail Cap(c_a), veh/h	568	0	979				913	2495	0	0	1346	600
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	35.7	0.0	18.7				35.9	3.8	0.0	0.0	18.8	18.8
Incr Delay (d2), s/veh	0.1	0.0	0.4				33.4	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.1				14.6	0.1	0.0	0.0	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.8	0.0	19.2				69.2	3.8	0.0	0.0	18.8	18.8
LnGrp LOS	D	A	B				F	A	A	A	B	B
Approach Vol, veh/h		322						978			43	
Approach Delay, s/veh		20.1						65.8			18.8	
Approach LOS		C						E			B	

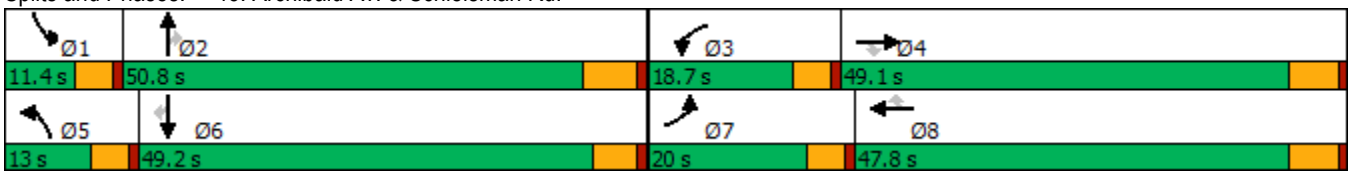
Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		80.0		21.1	34.0	46.0						
Change Period (Y+Rc), s		6.2		4.5	4.6	6.2						
Max Green Setting (Gmax), s		73.8		35.5	29.4	39.8						
Max Q Clear Time (g_c+I1), s		2.4		15.7	31.4	2.6						
Green Ext Time (p_c), s		0.3		1.0	0.0	0.2						

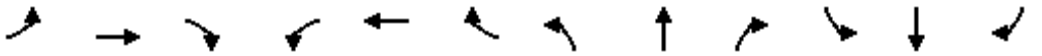
Intersection Summary												
HCM 6th Ctrl Delay			53.3									
HCM 6th LOS			D									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	383	375	113	248	701	137	241	776	215	103	440	420
Future Volume (vph)	383	375	113	248	701	137	241	776	215	103	440	420
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	47.8	47.8	9.6	47.8	47.8	9.6	48.2	48.2	9.6	47.4	47.4
Total Split (s)	20.0	49.1	49.1	18.7	47.8	47.8	13.0	50.8	50.8	11.4	49.2	49.2
Total Split (%)	15.4%	37.8%	37.8%	14.4%	36.8%	36.8%	10.0%	39.1%	39.1%	8.8%	37.8%	37.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	5.2	5.2	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	6.2	6.2	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	None	None	Max	None	None	None	None	None	None	None	None
Act Effct Green (s)	15.9	24.6	24.6	14.6	23.2	23.2	8.7	25.3	25.3	6.6	24.1	24.1
Actuated g/C Ratio	0.17	0.26	0.26	0.16	0.25	0.25	0.09	0.27	0.27	0.07	0.26	0.26
v/c Ratio	0.71	0.30	0.25	0.50	0.60	0.30	0.82	0.61	0.39	0.46	0.36	0.76
Control Delay	46.6	28.2	6.5	43.2	33.0	7.6	64.8	31.7	5.7	52.4	29.1	21.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.6	28.2	6.5	43.2	33.0	7.6	64.8	31.7	5.7	52.4	29.1	21.8
LOS	D	C	A	D	C	A	E	C	A	D	C	C
Approach Delay		33.4			32.1			33.6			28.4	
Approach LOS		C			C			C			C	

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 93.1	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 32.0	Intersection LOS: C
Intersection Capacity Utilization 78.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 43: Archibald Av. & Schleisman Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	383	375	113	248	701	137	241	776	215	103	440	420
Future Volume (veh/h)	383	375	113	248	701	137	241	776	215	103	440	420
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	426	417	62	276	779	75	268	862	166	114	489	345
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	596	1275	388	546	1201	368	325	1624	504	183	1414	433
Arrive On Green	0.17	0.25	0.25	0.16	0.23	0.23	0.09	0.31	0.31	0.05	0.27	0.27
Sat Flow, veh/h	3510	5187	1580	3510	5187	1589	3510	5187	1610	3510	5187	1588
Grp Volume(v), veh/h	426	417	62	276	779	75	268	862	166	114	489	345
Grp Sat Flow(s),veh/h/ln	1755	1729	1580	1755	1729	1589	1755	1729	1610	1755	1729	1588
Q Serve(g_s), s	10.4	6.0	2.8	6.5	12.3	3.5	6.8	12.4	7.2	2.9	6.9	18.3
Cycle Q Clear(g_c), s	10.4	6.0	2.8	6.5	12.3	3.5	6.8	12.4	7.2	2.9	6.9	18.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	596	1275	388	546	1201	368	325	1624	504	183	1414	433
V/C Ratio(X)	0.71	0.33	0.16	0.51	0.65	0.20	0.82	0.53	0.33	0.62	0.35	0.80
Avail Cap(c_a), veh/h	596	2475	754	546	2401	736	325	2550	791	263	2504	766
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	28.1	26.9	35.1	31.5	28.1	40.4	25.7	23.9	42.1	26.5	30.7
Incr Delay (d2), s/veh	7.2	0.1	0.2	3.3	0.6	0.3	14.8	0.3	0.4	1.3	0.1	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	2.3	1.0	2.9	4.9	1.3	3.4	4.7	2.6	1.2	2.6	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.8	28.2	27.0	38.5	32.1	28.4	55.3	25.9	24.2	43.4	26.7	34.1
LnGrp LOS	D	C	C	D	C	C	E	C	C	D	C	C
Approach Vol, veh/h		905			1130			1296			948	
Approach Delay, s/veh		35.0			33.4			31.8			31.4	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.3	34.6	18.7	28.1	13.0	30.9	20.0	26.8
Change Period (Y+Rc), s	4.6	6.2	4.6	5.8	4.6	* 6.2	4.6	5.8
Max Green Setting (Gmax), s	6.8	44.6	14.1	43.3	8.4	* 44	15.4	42.0
Max Q Clear Time (g_c+I1), s	4.9	14.4	8.5	8.0	8.8	20.3	12.4	14.3
Green Ext Time (p_c), s	0.0	6.5	0.3	2.9	0.0	4.2	0.3	5.6

Intersection Summary	
HCM 6th Ctrl Delay	32.8
HCM 6th LOS	C

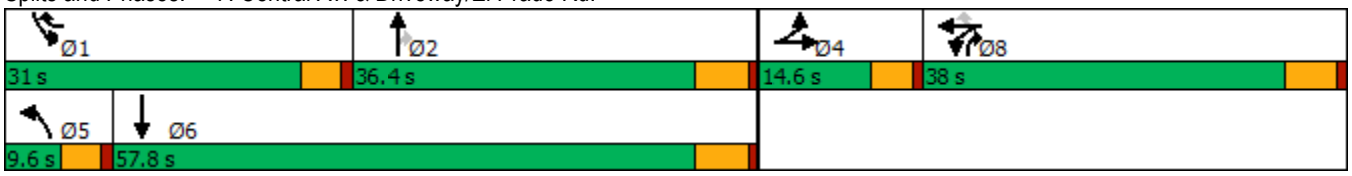
Notes

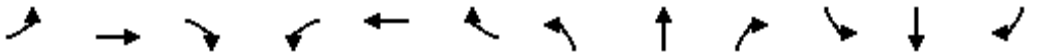
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	17	12	556	3	462	6	752	778	613	847
Future Volume (vph)	17	12	556	3	462	6	752	778	613	847
Turn Type	Split	NA	Split	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	4	4	8	8	1	5	2	8	1	6
Permitted Phases					8			2		
Detector Phase	4	4	8	8	1	5	2	8	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	34.8	34.8	9.6	9.6	27.8	34.8	9.6	24.8
Total Split (s)	14.6	14.6	38.0	38.0	31.0	9.6	36.4	38.0	31.0	57.8
Total Split (%)	12.2%	12.2%	31.7%	31.7%	25.8%	8.0%	30.3%	31.7%	25.8%	48.2%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	5.8	4.6	4.6	5.8	5.8	4.6	5.8
Lead/Lag					Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	None	Max
Act Effct Green (s)	10.3	10.3	25.0	25.0	50.4	5.1	31.5	56.5	24.1	58.7
Actuated g/C Ratio	0.10	0.10	0.24	0.24	0.48	0.05	0.30	0.54	0.23	0.56
v/c Ratio	0.11	0.12	0.79	0.76	0.57	0.08	0.76	0.85	0.89	0.33
Control Delay	52.1	39.1	55.1	51.4	11.8	57.3	42.3	19.2	56.6	15.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.1	39.1	55.1	51.4	11.8	57.3	42.3	19.2	56.6	15.6
LOS	D	D	E	D	B	E	D	B	E	B
Approach Delay		45.1		34.5			30.7			32.6
Approach LOS		D		C			C			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 105.1	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 32.5	Intersection LOS: C
Intersection Capacity Utilization 91.6%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 7: Central Av. & Driveway/El Prado Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	12	8	556	3	462	6	752	778	613	847	18
Future Volume (veh/h)	17	12	8	556	3	462	6	752	778	613	847	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	18	12	3	581	0	226	6	783	470	639	882	17
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	97	83	21	671	0	658	12	1036	777	704	2579	50
Arrive On Green	0.06	0.06	0.06	0.21	0.00	0.21	0.01	0.30	0.30	0.22	0.52	0.52
Sat Flow, veh/h	1619	1390	347	3238	0	1523	1619	3420	1521	3141	4963	96
Grp Volume(v), veh/h	18	0	15	581	0	226	6	783	470	639	582	317
Grp Sat Flow(s),veh/h/ln	1619	0	1737	1619	0	1523	1619	1710	1521	1570	1638	1783
Q Serve(g_s), s	1.1	0.0	0.8	17.5	0.0	10.0	0.4	20.9	22.1	20.0	10.5	10.5
Cycle Q Clear(g_c), s	1.1	0.0	0.8	17.5	0.0	10.0	0.4	20.9	22.1	20.0	10.5	10.5
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	97	0	104	671	0	658	12	1036	777	704	1702	926
V/C Ratio(X)	0.19	0.00	0.14	0.87	0.00	0.34	0.48	0.76	0.61	0.91	0.34	0.34
Avail Cap(c_a), veh/h	160	0	172	1032	0	828	80	1036	777	821	1702	926
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.2	0.0	45.0	38.7	0.0	19.2	49.9	31.8	17.5	38.2	14.2	14.2
Incr Delay (d2), s/veh	0.3	0.0	0.2	3.2	0.0	0.1	10.4	5.1	3.5	11.6	0.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.4	6.8	0.0	3.2	0.2	8.9	11.6	8.4	3.6	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.5	0.0	45.3	41.9	0.0	19.3	60.3	37.0	21.0	49.7	14.7	15.2
LnGrp LOS	D	A	D	D	A	B	E	D	C	D	B	B
Approach Vol, veh/h		33			807			1259			1538	
Approach Delay, s/veh		45.4			35.6			31.1			29.4	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	27.3	36.4		10.6	5.4	58.3		26.7				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		5.8				
Max Green Setting (Gmax), s	26.4	30.6		10.0	5.0	52.0		32.2				
Max Q Clear Time (g_c+I1), s	22.0	24.1		3.1	2.4	12.5		19.5				
Green Ext Time (p_c), s	0.6	3.5		0.0	0.0	6.1		1.3				

Intersection Summary		
HCM 6th Ctrl Delay		31.5
HCM 6th LOS		C

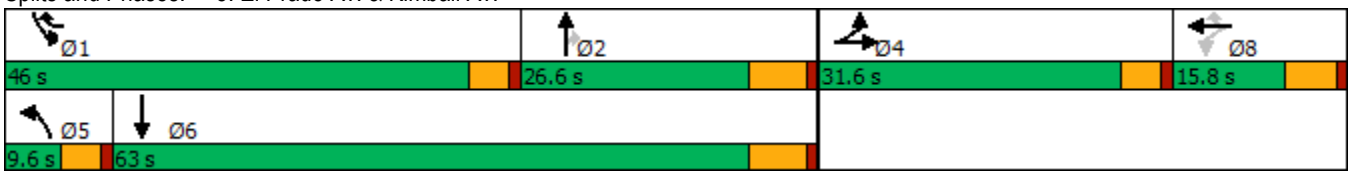
Notes

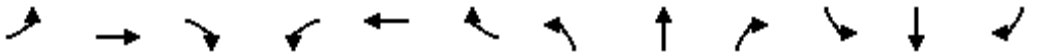
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	33	14	25	5	712	4	253	33	840	316
Future Volume (vph)	33	14	25	5	712	4	253	33	840	316
Turn Type	Split	NA	Perm	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	4	4		8	1	5	2		1	6
Permitted Phases			8		8			2		
Detector Phase	4	4	8	8	1	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	15.8	15.8	9.6	9.6	16.2	16.2	9.6	24.2
Total Split (s)	31.6	31.6	15.8	15.8	46.0	9.6	26.6	26.6	46.0	63.0
Total Split (%)	26.3%	26.3%	13.2%	13.2%	38.3%	8.0%	22.2%	22.2%	38.3%	52.5%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		5.8	4.6	4.6	6.2	6.2	4.6	6.2
Lead/Lag					Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Max	None	None	None	Max	Max
Act Effct Green (s)	13.2	13.2		10.6	49.7	5.3	18.1	18.1	44.0	69.0
Actuated g/C Ratio	0.14	0.14		0.12	0.54	0.06	0.20	0.20	0.48	0.75
v/c Ratio	0.15	0.08		0.21	0.70	0.04	0.76	0.08	0.59	0.26
Control Delay	41.0	33.7		49.6	8.8	52.8	53.0	0.4	25.0	10.6
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.0	33.7		49.6	8.8	52.8	53.0	0.4	25.0	10.6
LOS	D	C		D	A	D	D	A	C	B
Approach Delay		38.3		10.5			47.0			21.0
Approach LOS		D		B			D			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 91.7	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 21.3	Intersection LOS: C
Intersection Capacity Utilization 81.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 8: El Prado Av. & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	14	5	25	5	712	4	253	33	840	316	11
Future Volume (veh/h)	33	14	5	25	5	712	4	253	33	840	316	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	35	15	3	27	5	312	4	269	31	894	336	11
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	127	114	23	151	28	809	9	309	262	1343	1029	34
Arrive On Green	0.08	0.08	0.08	0.10	0.10	0.10	0.01	0.17	0.17	0.43	0.59	0.59
Sat Flow, veh/h	1619	1456	291	1457	270	1518	1619	1800	1525	3141	1731	57
Grp Volume(v), veh/h	35	0	18	32	0	312	4	269	31	894	0	347
Grp Sat Flow(s),veh/h/ln	1619	0	1748	1727	0	1518	1619	1800	1525	1570	0	1788
Q Serve(g_s), s	2.0	0.0	0.9	1.6	0.0	10.0	0.2	14.1	1.7	22.1	0.0	9.5
Cycle Q Clear(g_c), s	2.0	0.0	0.9	1.6	0.0	10.0	0.2	14.1	1.7	22.1	0.0	9.5
Prop In Lane	1.00		0.17	0.84		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	127	0	137	178	0	809	9	309	262	1343	0	1062
V/C Ratio(X)	0.28	0.00	0.13	0.18	0.00	0.39	0.47	0.87	0.12	0.67	0.00	0.33
Avail Cap(c_a), veh/h	451	0	487	178	0	809	84	379	321	1343	0	1062
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.0	0.0	41.5	39.7	0.0	13.4	48.0	39.0	33.9	22.2	0.0	9.9
Incr Delay (d2), s/veh	1.2	0.0	0.4	0.5	0.0	0.3	14.1	16.5	0.2	2.6	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.4	0.7	0.0	3.6	0.1	7.3	0.6	7.7	0.0	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.2	0.0	42.0	40.1	0.0	13.7	62.2	55.6	34.1	24.8	0.0	10.7
LnGrp LOS	D	A	D	D	A	B	E	E	C	C	A	B
Approach Vol, veh/h		53			344			304			1241	
Approach Delay, s/veh		42.8			16.2			53.5			20.9	
Approach LOS		D			B			D			C	

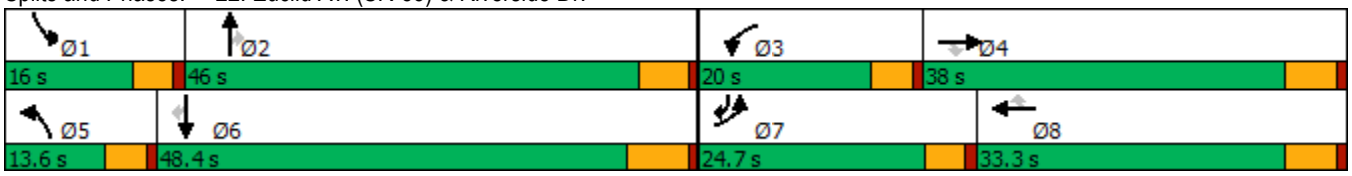
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	46.0	22.8		12.2	5.1	63.7		15.8				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		5.8				
Max Green Setting (Gmax), s	41.4	20.4		27.0	5.0	56.8		10.0				
Max Q Clear Time (g_c+I1), s	24.1	16.1		4.0	2.2	11.5		12.0				
Green Ext Time (p_c), s	1.6	0.5		0.1	0.0	1.9		0.0				

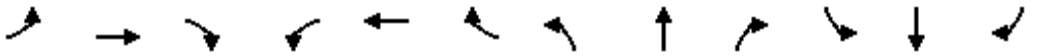
Intersection Summary			
HCM 6th Ctrl Delay		25.7	
HCM 6th LOS		C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	145	440	71	178	393	62	63	975	230	134	880	185
Future Volume (vph)	145	440	71	178	393	62	63	975	230	134	880	185
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	25.8	25.8	9.6	31.8	31.8	9.6	30.4	30.4	9.6	34.5	9.6
Total Split (s)	24.7	38.0	38.0	20.0	33.3	33.3	13.6	46.0	46.0	16.0	48.4	24.7
Total Split (%)	20.6%	31.7%	31.7%	16.7%	27.8%	27.8%	11.3%	38.3%	38.3%	13.3%	40.3%	20.6%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	None
Act Effct Green (s)	15.1	31.6	31.6	15.0	31.5	31.5	7.9	40.6	40.6	11.4	45.0	62.0
Actuated g/C Ratio	0.13	0.27	0.27	0.13	0.26	0.26	0.07	0.34	0.34	0.10	0.38	0.52
v/c Ratio	0.74	0.96	0.15	0.91	0.45	0.13	0.62	0.87	0.36	0.91	0.71	0.22
Control Delay	70.8	75.7	2.3	95.8	39.3	0.5	78.2	46.3	6.3	105.3	36.3	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.8	75.7	2.3	95.8	39.3	0.5	78.2	46.3	6.3	105.3	36.3	3.6
LOS	E	E	A	F	D	A	E	D	A	F	D	A
Approach Delay		66.7			51.3			40.7			39.0	
Approach LOS		E			D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 119	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 46.5	Intersection LOS: D
Intersection Capacity Utilization 89.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 22: Euclid Av. (SR-83) & Riverside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	440	71	178	393	62	63	975	230	134	880	185
Future Volume (veh/h)	145	440	71	178	393	62	63	975	230	134	880	185
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	151	458	49	185	409	49	66	1016	186	140	917	102
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	175	479	406	206	974	434	82	1147	511	152	1295	736
Arrive On Green	0.11	0.27	0.27	0.13	0.28	0.28	0.05	0.34	0.34	0.09	0.38	0.38
Sat Flow, veh/h	1619	1800	1525	1619	3420	1524	1619	3420	1525	1619	3420	1506
Grp Volume(v), veh/h	151	458	49	185	409	49	66	1016	186	140	917	102
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1619	1710	1524	1619	1710	1525	1619	1710	1506
Q Serve(g_s), s	11.1	30.3	3.0	13.6	11.8	2.9	4.9	34.0	11.2	10.4	27.6	4.5
Cycle Q Clear(g_c), s	11.1	30.3	3.0	13.6	11.8	2.9	4.9	34.0	11.2	10.4	27.6	4.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	175	479	406	206	974	434	82	1147	511	152	1295	736
V/C Ratio(X)	0.86	0.96	0.12	0.90	0.42	0.11	0.80	0.89	0.36	0.92	0.71	0.14
Avail Cap(c_a), veh/h	269	479	406	206	974	434	120	1147	511	152	1295	736
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.1	43.8	33.7	52.1	35.2	32.0	56.9	38.1	30.5	54.4	31.9	17.1
Incr Delay (d2), s/veh	10.5	30.4	0.1	35.4	0.3	0.1	13.2	10.2	2.0	48.7	3.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	17.0	1.1	7.4	4.8	1.1	2.2	14.9	4.3	6.2	11.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.6	74.1	33.8	87.5	35.5	32.1	70.1	48.3	32.5	103.0	35.2	17.5
LnGrp LOS	E	E	C	F	D	C	E	D	C	F	D	B
Approach Vol, veh/h		658			643			1268			1159	
Approach Delay, s/veh		68.7			50.2			47.1			41.9	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	47.1	20.0	38.0	10.7	52.4	17.7	40.3
Change Period (Y+Rc), s	4.6	* 6.5	4.6	5.8	4.6	6.5	4.6	5.8
Max Green Setting (Gmax), s	11.4	* 41	15.4	32.2	9.0	41.9	20.1	27.5
Max Q Clear Time (g_c+I1), s	12.4	36.0	15.6	32.3	6.9	29.6	13.1	13.8
Green Ext Time (p_c), s	0.0	2.7	0.0	0.0	0.0	5.1	0.1	2.1

Intersection Summary	
HCM 6th Ctrl Delay	49.8
HCM 6th LOS	D

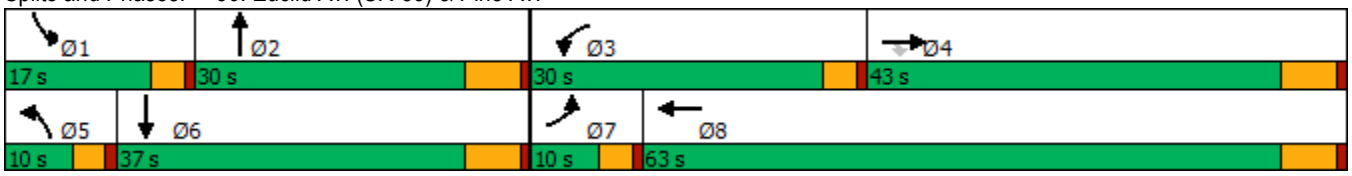
Notes

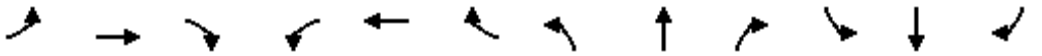
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	5	424	90	517	64	54	661	1061	50	689
Future Volume (vph)	5	424	90	517	64	54	661	1061	50	689
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Free	Prot	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases			4					Free		
Detector Phase	7	4	4	3	8	5	2		1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	9.0	43.0	43.0	9.0	45.0	9.0	11.0		9.0	29.0
Total Split (s)	10.0	43.0	43.0	30.0	63.0	10.0	30.0		17.0	37.0
Total Split (%)	8.3%	35.8%	35.8%	25.0%	52.5%	8.3%	25.0%		14.2%	30.8%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0		3.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	4.0	6.0		4.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Min		None	Min
Act Effct Green (s)	5.4	30.5	30.5	22.3	55.2	6.0	25.1	104.1	8.0	27.2
Actuated g/C Ratio	0.05	0.29	0.29	0.21	0.53	0.06	0.24	1.00	0.08	0.26
v/c Ratio	0.06	0.82	0.16	0.84	0.09	0.59	0.82	0.71	0.41	0.79
Control Delay	56.0	49.9	0.6	53.7	11.8	79.5	49.2	2.8	60.8	45.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.0	49.9	0.6	53.7	11.8	79.5	49.2	2.8	60.8	45.3
LOS	E	D	A	D	B	E	D	A	E	D
Approach Delay		41.4			47.8		22.4			46.4
Approach LOS		D			D		C			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 104.1	
Natural Cycle: 95	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 34.2	Intersection LOS: C
Intersection Capacity Utilization 82.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 30: Euclid Av. (SR-83) & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	424	90	517	64	22	54	661	1061	50	689	4
Future Volume (veh/h)	5	424	90	517	64	22	54	661	1061	50	689	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1600	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	5	433	0	528	65	20	55	674	0	51	703	4
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	11	512		605	637	196	69	816		66	827	5
Arrive On Green	0.01	0.28	0.00	0.20	0.48	0.48	0.04	0.24	0.00	0.04	0.24	0.24
Sat Flow, veh/h	1619	1800	1525	2956	1321	406	1619	3420	1525	1619	3487	20
Grp Volume(v), veh/h	5	433	0	528	0	85	55	674	0	51	345	362
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1478	0	1727	1619	1710	1525	1619	1710	1796
Q Serve(g_s), s	0.3	19.6	0.0	14.9	0.0	2.3	2.9	16.1	0.0	2.7	16.6	16.6
Cycle Q Clear(g_c), s	0.3	19.6	0.0	14.9	0.0	2.3	2.9	16.1	0.0	2.7	16.6	16.6
Prop In Lane	1.00		1.00	1.00		0.24	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	11	512		605	0	833	69	816		66	405	426
V/C Ratio(X)	0.47	0.85		0.87	0.00	0.10	0.80	0.83		0.77	0.85	0.85
Avail Cap(c_a), veh/h	112	771		890	0	1140	112	950		244	614	645
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.8	29.1	0.0	33.3	0.0	12.2	41.0	31.2	0.0	41.0	31.5	31.5
Incr Delay (d2), s/veh	11.6	6.9	0.0	4.7	0.0	0.1	7.8	4.6	0.0	6.9	4.6	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	8.7	0.0	5.3	0.0	0.8	1.2	6.5	0.0	1.1	6.7	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.4	36.1	0.0	38.0	0.0	12.2	48.8	35.8	0.0	47.9	36.1	35.9
LnGrp LOS	D	D		D	A	B	D	D		D	D	D
Approach Vol, veh/h		438	A		613			729	A		758	
Approach Delay, s/veh		36.3			34.4			36.7			36.8	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.5	26.6	21.7	30.5	7.7	26.5	4.6	47.7
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	13.0	24.0	26.0	37.0	6.0	31.0	6.0	57.0
Max Q Clear Time (g_c+I1), s	4.7	18.1	16.9	21.6	4.9	18.6	2.3	4.3
Green Ext Time (p_c), s	0.0	1.4	0.7	3.0	0.0	1.8	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	36.1
HCM 6th LOS	D

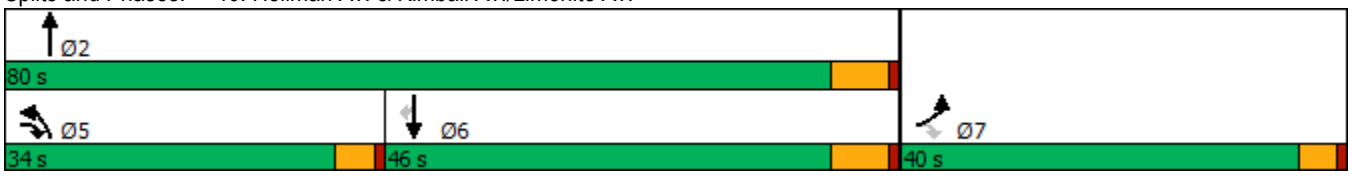
Notes

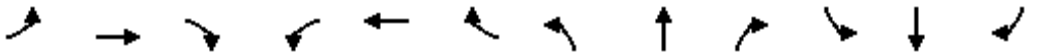
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	14	733	288	19	45	91
Future Volume (vph)	14	733	288	19	45	91
Turn Type	Prot	pm+ov	Prot	NA	NA	Perm
Protected Phases	7	5	5	2	6	
Permitted Phases		7				6
Detector Phase	7	5	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	10.0	10.0	10.0
Minimum Split (s)	37.8	39.0	39.0	82.2	43.2	43.2
Total Split (s)	40.0	34.0	34.0	80.0	46.0	46.0
Total Split (%)	33.3%	28.3%	28.3%	66.7%	38.3%	38.3%
Yellow Time (s)	3.5	3.5	3.5	5.2	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	6.2	6.2	6.2
Lead/Lag		Lead	Lead		Lag	Lag
Lead-Lag Optimize?		Yes	Yes		Yes	Yes
Recall Mode	None	Max	Max	Max	None	None
Act Effct Green (s)	10.5	56.9	48.4	86.7	34.1	34.1
Actuated g/C Ratio	0.11	0.58	0.50	0.89	0.35	0.35
v/c Ratio	0.09	0.64	0.19	0.01	0.04	0.16
Control Delay	36.7	3.7	22.2	4.2	19.4	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.7	3.7	22.2	4.2	19.4	5.5
LOS	D	A	C	A	B	A
Approach Delay				21.1	10.1	
Approach LOS				C	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 97.5	
Natural Cycle: 120	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 9.3	Intersection LOS: A
Intersection Capacity Utilization 65.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 40: Hellman Av. & Kimball Av./Limonite Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	0	733	0	0	0	288	19	0	0	45	91
Future Volume (veh/h)	14	0	733	0	0	0	288	19	0	0	45	91
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1700	0	1800				1700	1800	0	0	1800	1800
Adj Flow Rate, veh/h	15	0	772				303	20	0	0	47	96
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	479	0	826				772	2103	0	0	1134	506
Arrive On Green	0.30	0.00	0.30				0.25	0.62	0.00	0.00	0.33	0.33
Sat Flow, veh/h	1619	0	1525				3141	3510	0	0	3510	1525
Grp Volume(v), veh/h	15	0	772				303	20	0	0	47	96
Grp Sat Flow(s),veh/h/ln	1619	0	1525				1570	1710	0	0	1710	1525
Q Serve(g_s), s	0.8	0.0	35.5				9.7	0.3	0.0	0.0	1.1	5.4
Cycle Q Clear(g_c), s	0.8	0.0	35.5				9.7	0.3	0.0	0.0	1.1	5.4
Prop In Lane	1.00		1.00				1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	479	0	826				772	2103	0	0	1134	506
V/C Ratio(X)	0.03	0.00	0.93				0.39	0.01	0.00	0.00	0.04	0.19
Avail Cap(c_a), veh/h	479	0	826				772	2103	0	0	1134	506
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	30.0	0.0	25.5				37.8	8.9	0.0	0.0	27.2	28.6
Incr Delay (d2), s/veh	0.0	0.0	17.5				1.5	0.0	0.0	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	41.5				3.7	0.1	0.0	0.0	0.4	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.1	0.0	43.0				39.3	9.0	0.0	0.0	27.2	28.8
LnGrp LOS	C	A	D				D	A	A	A	C	C
Approach Vol, veh/h		787						323			143	
Approach Delay, s/veh		42.7						37.4			28.3	
Approach LOS		D						D			C	

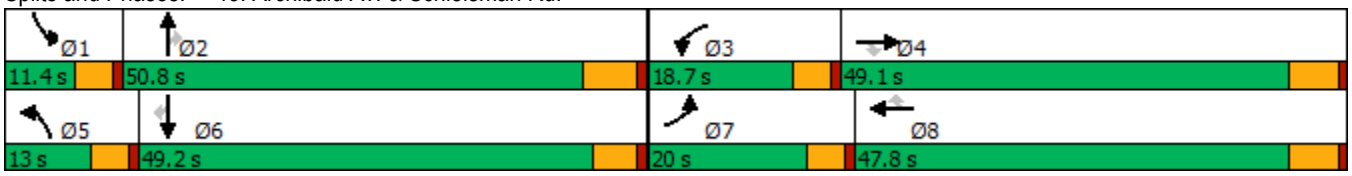
Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		80.0		40.0	34.0	46.0						
Change Period (Y+Rc), s		6.2		4.5	4.5	6.2						
Max Green Setting (Gmax), s		73.8		35.5	29.5	39.8						
Max Q Clear Time (g_c+I1), s		2.3		37.5	11.7	7.4						
Green Ext Time (p_c), s		0.1		0.0	0.9	0.5						

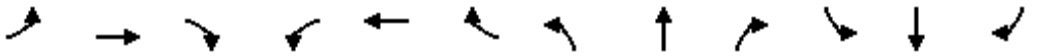
Intersection Summary												
HCM 6th Ctrl Delay			39.7									
HCM 6th LOS			D									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	372	993	172	108	308	55	178	593	109	160	641	300
Future Volume (vph)	372	993	172	108	308	55	178	593	109	160	641	300
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	47.8	47.8	9.6	47.8	47.8	9.6	48.2	48.2	9.6	47.4	47.4
Total Split (s)	20.0	49.1	49.1	18.7	47.8	47.8	13.0	50.8	50.8	11.4	49.2	49.2
Total Split (%)	15.4%	37.8%	37.8%	14.4%	36.8%	36.8%	10.0%	39.1%	39.1%	8.8%	37.8%	37.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	5.2	5.2	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	6.2	6.2	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	None	None	Max	None	None	None	None	None	None	None	None
Act Effct Green (s)	15.9	27.4	27.4	14.6	26.1	26.1	8.3	22.2	22.2	7.0	21.7	21.7
Actuated g/C Ratio	0.17	0.29	0.29	0.16	0.28	0.28	0.09	0.24	0.24	0.08	0.23	0.23
v/c Ratio	0.63	0.66	0.29	0.20	0.22	0.11	0.58	0.49	0.24	0.62	0.54	0.51
Control Delay	44.5	31.5	5.6	40.5	26.6	0.7	52.4	31.8	7.1	56.4	33.0	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.5	31.5	5.6	40.5	26.6	0.7	52.4	31.8	7.1	56.4	33.0	6.7
LOS	D	C	A	D	C	A	D	C	A	E	C	A
Approach Delay		31.7			26.7			32.9			29.2	
Approach LOS		C			C			C			C	

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 93.2	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 30.7	Intersection LOS: C
Intersection Capacity Utilization 82.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 43: Archibald Av. & Schleisman Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	372	993	172	108	308	55	178	593	109	160	641	300
Future Volume (veh/h)	372	993	172	108	308	55	178	593	109	160	641	300
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	380	1013	94	110	314	30	182	605	74	163	654	192
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	650	1516	471	595	1435	444	261	1115	346	239	1083	335
Arrive On Green	0.19	0.29	0.29	0.17	0.28	0.28	0.07	0.22	0.22	0.07	0.21	0.21
Sat Flow, veh/h	3510	5187	1610	3510	5187	1607	3510	5187	1610	3510	5187	1603
Grp Volume(v), veh/h	380	1013	94	110	314	30	182	605	74	163	654	192
Grp Sat Flow(s),veh/h/ln	1755	1729	1610	1755	1729	1607	1755	1729	1610	1755	1729	1603
Q Serve(g_s), s	8.2	14.3	3.6	2.2	3.9	1.1	4.2	8.6	3.1	3.8	9.5	8.9
Cycle Q Clear(g_c), s	8.2	14.3	3.6	2.2	3.9	1.1	4.2	8.6	3.1	3.8	9.5	8.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	650	1516	471	595	1435	444	261	1115	346	239	1083	335
V/C Ratio(X)	0.58	0.67	0.20	0.18	0.22	0.07	0.70	0.54	0.21	0.68	0.60	0.57
Avail Cap(c_a), veh/h	650	2702	839	595	2620	812	355	2783	864	287	2733	845
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.9	25.9	22.1	29.6	23.2	22.2	37.6	29.0	26.8	37.9	29.8	29.6
Incr Delay (d2), s/veh	3.8	0.5	0.2	0.7	0.1	0.1	1.6	0.4	0.3	3.2	0.5	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	5.4	1.3	0.9	1.5	0.4	1.7	3.3	1.2	1.6	3.7	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.8	26.4	22.3	30.3	23.2	22.2	39.2	29.4	27.2	41.1	30.3	31.1
LnGrp LOS	C	C	C	C	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1487			454			861			1009	
Approach Delay, s/veh		28.3			24.9			31.3			32.2	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	24.1	18.7	30.1	10.8	23.6	20.0	28.8
Change Period (Y+Rc), s	4.6	6.2	4.6	5.8	4.6	* 6.2	4.6	5.8
Max Green Setting (Gmax), s	6.8	44.6	14.1	43.3	8.4	* 44	15.4	42.0
Max Q Clear Time (g_c+I1), s	5.8	10.6	4.2	16.3	6.2	11.5	10.2	5.9
Green Ext Time (p_c), s	0.0	4.2	0.1	7.6	0.1	5.0	0.4	2.1

Intersection Summary	
HCM 6th Ctrl Delay	29.6
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 4.1:

POST PROCESSING WORKSHEETS

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Project:	Majestic Chino Heritage	Job #:	10349
Scenario:	Horizon Year (2040)	Analyst:	CS
		Date:	4/2/19

LOCATION: SR-71 Southbound Ramps & Soquel Canyon Pkwy.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	NB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
SOUTH BOUND	Left	1	411	410	41000%	1	654	653	65300%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	85	84	8400%	1	260	259	25900%
	SB Total	2	496	494	24700%	2	914	912	45600%
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	875	873	43650%	2	596	594	29700%
	Right	1	80	79	7900%	1	50	49	4900%
	EB Total	3	955	952	31733%	3	646	643	21433%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	307	305	15250%	2	480	478	23900%
	Right	1	251	250	25000%	1	240	239	23900%
	WB Total	3	558	555	18500%	3	720	717	23900%
TOTAL ENTERING VOLUME		8	2,009	2001	25013%	8	2,280	2272	28400%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	496	914			
North Leg	Outbound	251	240			
North Leg	**TOTAL**	**747**	**1,154**	**6%**	**9%**	**12,236**
South Leg	Inbound	0	0			
South Leg	Outbound	80	50			
South Leg	**TOTAL**	**80**	**50**	**8%**	**5%**	**1,038**
East Leg	Inbound	558	720			
East Leg	Outbound	1,286	1,250			
East Leg	**TOTAL**	**1,844**	**1,970**	**8%**	**9%**	**22,502**
West Leg	Inbound	955	646			
West Leg	Outbound	392	740			
West Leg	**TOTAL**	**1,347**	**1,386**	**9%**	**9%**	**15,002**
OVERALL TOTAL		***4,018***	***4,560***	**8%**	***9%***	***50,778***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[01 SR-71SB_Soquel Canyon-SEMI.xls]Output (3)

Project:	Majestic Chino Heritage	Job #:	10349
Scenario:	Horizon Year (2040)	Analyst:	CS
		Date:	4/2/19

LOCATION: SR-71 Southbound Ramps & Pine Av.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	NB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
SOUTH BOUND	Left	1	430	429	42900%	1	797	796	79600%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	190	189	18900%	1	314	313	31300%
	SB Total	2	620	618	30900%	2	1,111	1,109	55450%
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	270	268	13400%	2	414	412	20600%
	Right	1	30	29	2900%	1	27	26	2600%
	EB Total	3	300	297	9900%	3	441	438	14600%
WEST BOUND	Left	1	50	49	4900%	1	84	83	8300%
	Through	2	200	198	9900%	2	513	511	25550%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	3	250	247	8233%	3	597	594	19800%
TOTAL ENTERING VOLUME		8	1,170	1162	14525%	8	2,149	2141	26763%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	620	1,111			
North Leg	Outbound	0	0			
North Leg	**TOTAL**	**620**	**1,111**	**5%**	**9%**	**11,837**
South Leg	Inbound	0	0			
South Leg	Outbound	80	111			
South Leg	**TOTAL**	**80**	**111**	**5%**	**7%**	**1,635**
East Leg	Inbound	250	597			
East Leg	Outbound	700	1,211			
East Leg	**TOTAL**	**950**	**1,808**	**5%**	**9%**	**19,436**
West Leg	Inbound	300	441			
West Leg	Outbound	390	827			
West Leg	**TOTAL**	**690**	**1,268**	**5%**	**8%**	**15,005**
OVERALL TOTAL		***2,340***	***4,298***	**5%**	***9%***	***47,913***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[02 SR71 SB_Pine-SEMI.xls]Output (3)

Project: Majestic Chino Heritage
Scenario: Horizon Year (2040)

Job #: 10349
Analyst: CS
Date: 4/2/19

LOCATION: SR-71 Southbound Ramps / Euclid Avenue (SR-83)
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	19	7	-12	-62%	17	6	-11	-65%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	288	313	26	9%	147	157	10	7%
	NB Total	306	320	14	5%	164	163	-1	-1%
SOUTH BOUND	Left	628	669	42	7%	629	1,040	411	65%
	Through	26	8	-18	-69%	66	43	-23	-34%
	Right	40	14	-26	-65%	67	37	-30	-45%
	SB Total	693	691	-2	0%	762	1,120	359	47%
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	685	775	91	13%	841	983	142	17%
	Right	31	10	-21	-68%	58	27	-31	-53%
	EB Total	716	785	70	10%	899	1,010	111	12%
WEST BOUND	Left	195	234	40	20%	121	170	50	41%
	Through	275	401	126	46%	253	297	45	18%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	470	635	166	35%	373	467	94	25%
TOTAL ENTERING VOLUME		2,184	2,431	247	11%	2,198	2,760	563	26%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	691	1,120			
North Leg	Outbound	0	0			
North Leg	**TOTAL**	**691**	**1,120**	**27%**	**44%**	**2,538**
South Leg	Inbound	320	163			
South Leg	Outbound	252	240			
South Leg	**TOTAL**	**572**	**403**	**#DIV/0!**	**#DIV/0!**	**-**
East Leg	Inbound	635	467			
East Leg	Outbound	1,757	2,180			
East Leg	**TOTAL**	**2,392**	**2,647**	**14%**	**16%**	**16,686**
West Leg	Inbound	785	1,010			
West Leg	Outbound	422	340			
West Leg	**TOTAL**	**1,207**	**1,350**	**7%**	**8%**	**17,307**
OVERALL TOTAL		***4,862***	***5,520***	**13%**	***15%***	***36,531***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[03 SR71SB_Euclid.xls]Output (3)

Project: Majestic Chino Heritage
Scenario: Horizon Year (2040)

Job #: 10349
Analyst: CS
Date: 4/2/19

LOCATION: SR-71 Northbound Ramps & Soquel Canyon Pkwy.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	75	74	7400%	1	63	62	6200%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	115	114	11400%	1	278	277	27700%
	NB Total	2	190	188	9400%	2	341	339	16950%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	805	803	40150%	2	1,082	1,080	54000%
	Right	1	470	469	46900%	1	240	239	23900%
	EB Total	3	1,275	1,272	42400%	3	1,322	1,319	43967%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	515	513	25650%	2	667	665	33250%
	Right	1	810	809	80900%	1	660	659	65900%
	WB Total	3	1,325	1,322	44067%	3	1,327	1,324	44133%
TOTAL ENTERING VOLUME		8	2,790	2782	34775%	8	2,990	2982	37275%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	0	0			
North Leg	Outbound	810	660			
North Leg	**TOTAL**	**810**	**660**	**10%**	**8%**	**8,020**
South Leg	Inbound	190	341			
South Leg	Outbound	470	240			
South Leg	**TOTAL**	**660**	**581**	**10%**	**9%**	**6,494**
East Leg	Inbound	1,325	1,327			
East Leg	Outbound	920	1,360			
East Leg	**TOTAL**	**2,245**	**2,687**	**7%**	**8%**	**31,778**
West Leg	Inbound	1,275	1,322			
West Leg	Outbound	590	730			
West Leg	**TOTAL**	**1,865**	**2,052**	**8%**	**9%**	**22,502**
OVERALL TOTAL		***5,580***	***5,980***	**8%**	***9%***	***68,794***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[04 SR-71NB_Soquel Canyon-SEMI.xls]Output (3)

Project: Majestic Chino Heritage
Scenario: Horizon Year (2040)

Job #: 10349
Analyst: CS
Date: 4/2/19

LOCATION: SR-71 Northbound Ramps & Pine Av.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	3	2	200%	1	89	88	8800%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	71	70	7000%	1	232	231	23100%
	NB Total	2	74	72	3600%	2	321	319	15950%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
EAST BOUND	Left	1	100	99	9900%	1	330	329	32900%
	Through	2	639	637	31850%	2	878	876	43800%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	EB Total	3	739	736	24533%	3	1,208	1,205	40167%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	247	245	12250%	2	511	509	25450%
	Right	1	920	919	91900%	1	500	499	49900%
	WB Total	3	1,167	1,164	38800%	3	1,011	1,008	33600%
TOTAL ENTERING VOLUME		8	1,980	1972	24650%	8	2,540	2532	31650%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	0	0			
North Leg	Outbound	1,020	830			
North Leg	**TOTAL**	**1,020**	**830**	**9%**	**7%**	**11,665**
South Leg	Inbound	74	321			
South Leg	Outbound	0	0			
South Leg	**TOTAL**	**74**	**321**	**3%**	**13%**	**2,567**
East Leg	Inbound	1,167	1,011			
East Leg	Outbound	710	1,110			
East Leg	**TOTAL**	**1,877**	**2,121**	**8%**	**9%**	**24,622**
West Leg	Inbound	739	1,208			
West Leg	Outbound	250	600			
West Leg	**TOTAL**	**989**	**1,808**	**5%**	**9%**	**19,436**
OVERALL TOTAL		***3,960***	***5,080***	***7%***	***9%***	***58,290***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[05 SR71 NB_Pine-SEMI.xls]Output (3)

Project:	Majestic Chino Heritage	Job #:	10349
Scenario:	Horizon Year (2040)	Analyst:	CS
		Date:	4/2/19

LOCATION: SR-71 Northbound Ramps / Euclid Avenue (SR-83)
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	156	155	15500%	1	181	180	18000%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	404	403	40300%	1	1,214	1,213	121300%
	NB Total	2	560	558	27900%	2	1,395	1,393	69650%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	516	514	25700%	2	1,021	1,019	50950%
	Right	1	49	48	4800%	1	6	5	500%
	EB Total	3	565	562	18733%	3	1,027	1,024	34133%
WEST BOUND	Left	1	401	400	40000%	1	54	53	5300%
	Through	2	1,614	1,612	80600%	2	1,453	1,451	72550%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	3	2,015	2,012	67067%	3	1,507	1,504	50133%
TOTAL ENTERING VOLUME		8	3,140	3132	39150%	8	3,929	3921	49013%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	0	0			
North Leg	Outbound	0	0			
North Leg	**TOTAL**	**0**	**0**	**#DIV/0!**	**#DIV/0!**	**-**
South Leg	Inbound	560	1,395			
South Leg	Outbound	450	60			
South Leg	**TOTAL**	**1,010**	**1,455**	**6%**	**9%**	**16,479**
East Leg	Inbound	2,015	1,507			
East Leg	Outbound	920	2,235			
East Leg	**TOTAL**	**2,935**	**3,742**	**8%**	**10%**	**37,837**
West Leg	Inbound	565	1,027			
West Leg	Outbound	1,770	1,634			
West Leg	**TOTAL**	**2,335**	**2,661**	**8%**	**9%**	**28,348**
OVERALL TOTAL		***6,280***	***7,858***	**8%**	***10%***	***82,664***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[06 SR71NB_Euclid-SEMI.xls]Output (3)

Project:	Majestic Chino Heritage	Job #:	10349
Scenario:	Horizon Year (2040)	Analyst:	CS
		Date:	4/2/19

LOCATION: Central Av. & El Prado Rd.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	2	2	0	0%	6	6	0	0%
	Through	811	930	119	15%	752	898	147	19%
	Right	505	498	-7	-1%	778	657	-121	-15%
	NB Total	1,318	1,430	112	8%	1,535	1,561	26	2%
SOUTH BOUND	Left	251	315	65	26%	613	622	9	1%
	Through	695	781	87	12%	847	908	61	7%
	Right	11	14	4	33%	18	21	3	17%
	SB Total	956	1,110	155	16%	1,478	1,551	73	5%
EAST BOUND	Left	2	3	1	50%	17	22	5	29%
	Through	6	7	1	17%	12	11	-1	-8%
	Right	1	1	0	0%	8	8	0	0%
	EB Total	9	11	2	22%	37	41	4	11%
WEST BOUND	Left	755	668	-87	-11%	556	495	-61	-11%
	Through	4	4	0	0%	3	3	0	0%
	Right	512	587	76	15%	462	550	89	19%
	WB Total	1,270	1,259	-11	-1%	1,021	1,048	28	3%
TOTAL ENTERING VOLUME		3,553	3,810	257.5	7%	4,071	4,201	131	3%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,110	1,551			
North Leg	Outbound	1,520	1,470			
North Leg	**TOTAL**	**2,630**	**3,021**	**10%**	**11%**	**26,823**
South Leg	Inbound	1,430	1,561			
South Leg	Outbound	1,450	1,411			
South Leg	**TOTAL**	**2,880**	**2,972**	**10%**	**10%**	**28,949**
East Leg	Inbound	1,259	1,048			
East Leg	Outbound	820	1,290			
East Leg	**TOTAL**	**2,079**	**2,338**	**10%**	**11%**	**20,836**
West Leg	Inbound	11	41			
West Leg	Outbound	20	30			
West Leg	**TOTAL**	**31**	**71**	**#DIV/0!**	**#DIV/0!**	**-**
OVERALL TOTAL		***7,620***	***8,402***	**10%**	***11%***	***76,608***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[07 Central_El Prado.xls]Output (3)

Project: Majestic Chino Heritage
Scenario: Horizon Year (2040)

Job #: 10349
Analyst: CS
Date: 4/2/19

LOCATION: El Prado Rd. & Kimball Av.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	6	5	-1	-9%	4	2	-2	-43%
	Through	274	225	-49	-18%	253	120	-133	-52%
	Right	30	30	1	2%	33	18	-15	-45%
	NB Total	309	260	-49	-16%	289	140	-149	-51%
SOUTH BOUND	Left	386	455	70	18%	840	905	65	8%
	Through	235	199	-36	-15%	316	216	-100	-32%
	Right	38	38	0	0%	11	11	0	0%
	SB Total	659	692	34	5%	1,167	1,132	-35	-3%
EAST BOUND	Left	22	22	1	2%	33	31	-2	-5%
	Through	4	5	1	25%	14	15	2	11%
	Right	3	3	0	0%	5	4	-1	-20%
	EB Total	29	30	2	5%	51	50	-1	-2%
WEST BOUND	Left	31	28	-3	-8%	25	22	-3	-10%
	Through	16	17	2	10%	5	7	2	40%
	Right	759	793	34	4%	712	868	156	22%
	WB Total	805	838	33	4%	742	897	156	21%
TOTAL ENTERING VOLUME		1,801	1,820	19.5	1%	2,248	2,219	-29	-1%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	692	1,132			
North Leg	Outbound	1,040	1,019			
North Leg	**TOTAL**	**1,732**	**2,151**	**9%**	**11%**	**19,843**
South Leg	Inbound	260	140			
South Leg	Outbound	230	242			
South Leg	**TOTAL**	**490**	**382**	**54%**	**42%**	**910**
East Leg	Inbound	838	897			
East Leg	Outbound	490	938			
East Leg	**TOTAL**	**1,328**	**1,835**	**7%**	**10%**	**18,933**
West Leg	Inbound	30	50			
West Leg	Outbound	60	20			
West Leg	**TOTAL**	**90**	**70**	**#DIV/0!**	**#DIV/0!**	**-**
OVERALL TOTAL		***3,640***	***4,438***	**9%**	***11%***	***39,686***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[08 El Prado_Kimball.xls]Output (3)

Project: Majestic Chino Heritage
Scenario: Horizon Year (2040)

Job #: 10349
Analyst: CS
Date: 4/2/19

LOCATION: Mountain Av. & Kimball Av.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	19	18	1800%	1	75	74	7400%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	43	42	4200%	1	105	104	10400%
	NB Total	2	62	60	3000%	2	180	178	8900%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	407	405	20250%	2	1,235	1,233	61650%
	Right	1	18	17	1700%	1	64	63	6300%
	EB Total	3	425	422	14067%	3	1,299	1,296	43200%
WEST BOUND	Left	1	132	131	13100%	1	56	55	5500%
	Through	2	1,281	1,279	63950%	2	775	773	38650%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	3	1,413	1,410	47000%	3	831	828	27600%
TOTAL ENTERING VOLUME		8	1,900	1892	23650%	8	2,310	2302	28775%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	0	0			
North Leg	Outbound	0	0			
North Leg	**TOTAL**	**0**	**0**	**#DIV/0!**	**#DIV/0!**	**-**
South Leg	Inbound	62	180			
South Leg	Outbound	150	120			
South Leg	**TOTAL**	**212**	**300**	**7%**	**9%**	**3,253**
East Leg	Inbound	1,413	831			
East Leg	Outbound	450	1,340			
East Leg	**TOTAL**	**1,863**	**2,171**	**9%**	**11%**	**20,122**
West Leg	Inbound	425	1,299			
West Leg	Outbound	1,300	850			
West Leg	**TOTAL**	**1,725**	**2,149**	**9%**	**11%**	**18,933**
OVERALL TOTAL		***3,800***	***4,620***	**9%**	***11%***	***42,308***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[09 Mountain_Kimball-SEMI.xls]Output (3)

Project: Majestic Chino Heritage
Scenario: Horizon Year (2040)

Job #: 10349
Analyst: CS
Date: 4/3/19

LOCATION: Mountain Avenue & Bickmore Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	11	43	33	310%	11	17	6	55%
	Right	5	37	32	640%	35	43	8	23%
	NB Total	16	80	65	416%	46	60	14	30%
SOUTH BOUND	Left	37	63	27	73%	46	77	32	69%
	Through	5	7	3	56%	5	12	7	140%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	41	70	29	71%	51	89	39	76%
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	EB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
WEST BOUND	Left	53	83	30	57%	14	28	14	100%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	176	167	-9	-5%	57	103	46	81%
	WB Total	229	250	21	9%	71	131	60	85%
TOTAL ENTERING VOLUME		286	400	114.5	40%	168	280	113	67%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	70	89			
North Leg	Outbound	210	120			
North Leg	**TOTAL**	**280**	**209**	**9%**	**6%**	**3,253**
South Leg	Inbound	80	60			
South Leg	Outbound	90	40			
South Leg	**TOTAL**	**170**	**100**	**9%**	**5%**	**1,985**
East Leg	Inbound	250	131			
East Leg	Outbound	100	120			
East Leg	**TOTAL**	**350**	**251**	**8%**	**5%**	**4,569**
West Leg	Inbound	0	0			
West Leg	Outbound	0	0			
West Leg	**TOTAL**	**0**	**0**	**#DIV/0!**	**#DIV/0!**	**-**
OVERALL TOTAL		***800***	***560***	**8%**	***6%***	***9,807***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[10 Mountain_Bickmore.xls]Output (3)

Project:	Majestic Chino Heritage	Job #:	10349
Scenario:	Horizon Year (2040)	Analyst:	CS
		Date:	4/3/19

LOCATION: El Prado Rd. & Mountain Av.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	17	15	750%	2	8	6	300%
	Right	1	120	119	11900%	1	63	62	6200%
	NB Total	3	137	134	4467%	3	71	68	2267%
SOUTH BOUND	Left	1	0	-1	-100%	1	7	6	600%
	Through	2	0	-2	-100%	2	26	24	1200%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	3	0	-3	-100%	3	33	30	1000%
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	EB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
WEST BOUND	Left	1	100	99	9900%	1	64	63	6300%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	3	2	200%	1	2	1	100%
	WB Total	2	103	101	5050%	2	66	64	3200%
TOTAL ENTERING VOLUME		8	240	232	2900%	8	170	162	2025%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	0	33			
North Leg	Outbound	20	10			
North Leg	**TOTAL**	**20**	**43**	**8%**	**17%**	**247**
South Leg	Inbound	137	71			
South Leg	Outbound	100	90			
South Leg	**TOTAL**	**237**	**161**	**11%**	**7%**	**2,212**
East Leg	Inbound	103	66			
East Leg	Outbound	120	70			
East Leg	**TOTAL**	**223**	**136**	**11%**	**7%**	**1,958**
West Leg	Inbound	0	0			
West Leg	Outbound	0	0			
West Leg	**TOTAL**	**0**	**0**	**#DIV/0!**	**#DIV/0!**	**-**
OVERALL TOTAL		***480***	***340***	**11%**	***8%***	***4,417***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[14 El Prado_Mountain-SEMI.xls]Output (3)

Project:	Majestic Chino Heritage	Job #:	10349
Scenario:	Horizon Year (2040)	Analyst:	CS
		Date:	4/3/19

LOCATION: El Prado Rd. & Pine Av.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	NB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
SOUTH BOUND	Left	1	20	19	1900%	1	33	32	3200%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	82	81	8100%	1	59	58	5800%
	SB Total	2	102	100	5000%	2	92	90	4500%
EAST BOUND	Left	1	92	91	9100%	1	48	47	4700%
	Through	2	590	588	29400%	2	1,233	1,231	61550%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	EB Total	3	682	679	22633%	3	1,281	1,278	42600%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	1,288	1,286	64300%	2	1,046	1,044	52200%
	Right	1	48	47	4700%	1	22	21	2100%
	WB Total	3	1,336	1,333	44433%	3	1,068	1,065	35500%
TOTAL ENTERING VOLUME		8	2,120	2112	26400%	8	2,441	2433	30413%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	102	92			
North Leg	Outbound	140	70			
North Leg	**TOTAL**	**242**	**162**	**11%**	**7%**	**2,212**
South Leg	Inbound	0	0			
South Leg	Outbound	0	0			
South Leg	**TOTAL**	**0**	**0**	**#DIV/0!**	**#DIV/0!**	**-**
East Leg	Inbound	1,336	1,068			
East Leg	Outbound	610	1,266			
East Leg	**TOTAL**	**1,946**	**2,334**	**7%**	**9%**	**25,976**
West Leg	Inbound	682	1,281			
West Leg	Outbound	1,370	1,105			
West Leg	**TOTAL**	**2,052**	**2,386**	**7%**	**9%**	**27,780**
OVERALL TOTAL		***4,240***	***4,882***	**8%**	***9%***	***55,968***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[15 El Prado_Pine-SEMI.xls]Output (3)

Project: Majestic Chino Heritage
Scenario: Horizon Year (2040)

Job #: 10349
Analyst: CS
Date: 4/3/19

LOCATION: Euclid Av. & SR-60 Westbound Ramps
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	333	324	-9	-3%	233	208	-25	-11%
	Through	902	1,181	279	31%	1,034	1,113	79	8%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	NB Total	1,235	1,505	270	22%	1,267	1,321	54	4%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	947	1,201	254	27%	967	1,242	275	28%
	Right	470	541	72	15%	473	517	44	9%
	SB Total	1,417	1,742	326	23%	1,440	1,759	319	22%
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	EB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
WEST BOUND	Left	591	509	-82	-14%	580	558	-22	-4%
	Through	6	4	-2	-27%	6	5	-1	-17%
	Right	408	429	21	5%	392	387	-5	-1%
	WB Total	1,004	942	-62	-6%	978	950	-28	-3%
TOTAL ENTERING VOLUME		3,656	4,189	533.5	15%	3,685	4,030	346	9%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,742	1,759			
North Leg	Outbound	1,610	1,500			
North Leg	**TOTAL**	**3,352**	**3,259**	**9%**	**9%**	**36,643**
South Leg	Inbound	1,505	1,321			
South Leg	Outbound	1,710	1,800			
South Leg	**TOTAL**	**3,215**	**3,121**	**9%**	**9%**	**35,842**
East Leg	Inbound	942	950			
East Leg	Outbound	0	0			
East Leg	**TOTAL**	**942**	**950**	**14%**	**14%**	**6,974**
West Leg	Inbound	0	0			
West Leg	Outbound	869	730			
West Leg	**TOTAL**	**869**	**730**	**10%**	**9%**	**8,386**
OVERALL TOTAL		***8,378***	***8,060***	**10%**	***9%***	***87,845***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[19 Euclid_SR-60 WB.xls]Output (3)

Project:	Majestic Chino Heritage	Job #:	10349
Scenario:	Horizon Year (2040)	Analyst:	CS
		Date:	4/3/19

LOCATION: Euclid Av. & SR-60 Eastbound Ramps
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	832	1,038	207	25%	868	889	22	2%
	Right	656	623	-33	-5%	551	531	-20	-4%
	NB Total	1,487	1,661	174	12%	1,419	1,420	2	0%
SOUTH BOUND	Left	363	385	22	6%	361	378	18	5%
	Through	1,175	1,323	149	13%	1,187	1,422	236	20%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	1,538	1,708	171	11%	1,547	1,800	253	16%
EAST BOUND	Left	404	462	59	14%	400	465	66	16%
	Through	2	2	0	0%	3	3	0	0%
	Right	288	267	-21	-7%	306	382	77	25%
	EB Total	694	731	38	5%	708	850	142	20%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
TOTAL ENTERING VOLUME		3,718	4,100	382	10%	3,674	4,070	397	11%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,708	1,800			
North Leg	Outbound	1,500	1,354			
North Leg	**TOTAL**	**3,208**	**3,154**	**9%**	**9%**	**35,842**
South Leg	Inbound	1,661	1,420			
South Leg	Outbound	1,590	1,804			
South Leg	**TOTAL**	**3,251**	**3,224**	**9%**	**8%**	**38,142**
East Leg	Inbound	0	0			
East Leg	Outbound	1,010	912			
East Leg	**TOTAL**	**1,010**	**912**	**15%**	**14%**	**6,678**
West Leg	Inbound	731	850			
West Leg	Outbound	0	0			
West Leg	**TOTAL**	**731**	**850**	**9%**	**10%**	**8,223**
OVERALL TOTAL		***8,200***	***8,140***	**9%**	***9%***	***88,885***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[20 Euclid_SR-60 EB.xls]Output (3)

Project: Majestic Chino Heritage
Scenario: Horizon Year (2040)

Job #: 10349
Analyst: CS
Date: 4/3/19

LOCATION: Euclid Av. & Walnut Av.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	125	119	-6	-5%	178	216	38	21%
	Through	1,122	1,194	72	6%	1,158	1,142	-16	-1%
	Right	45	20	-25	-56%	70	40	-30	-43%
	NB Total	1,292	1,333	41	3%	1,406	1,398	-8	-1%
SOUTH BOUND	Left	150	147	-3	-2%	253	223	-30	-12%
	Through	1,128	1,173	46	4%	1,061	1,224	164	15%
	Right	59	123	64	108%	141	265	125	89%
	SB Total	1,336	1,443	107	8%	1,454	1,712	258	18%
EAST BOUND	Left	113	252	139	123%	103	179	76	74%
	Through	289	270	-19	-6%	356	356	1	0%
	Right	109	108	-1	-1%	133	174	41	31%
	EB Total	511	630	120	23%	592	709	118	20%
WEST BOUND	Left	71	29	-42	-59%	67	45	-22	-32%
	Through	307	255	-52	-17%	356	395	40	11%
	Right	204	190	-14	-7%	135	121	-14	-10%
	WB Total	582	474	-108	-18%	557	561	5	1%
TOTAL ENTERING VOLUME		3,720	3,880	160	4%	4,008	4,380	373	9%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,443	1,712			
North Leg	Outbound	1,636	1,442			
North Leg	**TOTAL**	**3,079**	**3,154**	**8%**	**8%**	**38,142**
South Leg	Inbound	1,333	1,398			
South Leg	Outbound	1,310	1,443			
South Leg	**TOTAL**	**2,643**	**2,841**	**8%**	**9%**	**32,886**
East Leg	Inbound	474	561			
East Leg	Outbound	437	619			
East Leg	**TOTAL**	**911**	**1,180**	**8%**	**10%**	**11,850**
West Leg	Inbound	630	709			
West Leg	Outbound	497	876			
West Leg	**TOTAL**	**1,127**	**1,585**	**11%**	**16%**	**10,155**
OVERALL TOTAL		***7,760***	***8,760***	**8%**	***9%***	***93,033***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[21 Euclid_Walnut.xls]Output (3)

Project:	Majestic Chino Heritage	Job #:	10349
Scenario:	Horizon Year (2040)	Analyst:	CS
		Date:	4/3/19

LOCATION: Euclid Avenue (SR-83) & Riverside Drive
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	66	148	82	124%	63	166	104	166%
	Through	909	982	74	8%	975	918	-57	-6%
	Right	155	201	47	30%	230	219	-11	-5%
	NB Total	1,129	1,331	202	18%	1,267	1,303	37	3%
SOUTH BOUND	Left	174	127	-47	-27%	134	90	-44	-33%
	Through	940	959	19	2%	880	953	73	8%
	Right	152	192	40	26%	185	345	161	87%
	SB Total	1,266	1,278	13	1%	1,198	1,388	190	16%
EAST BOUND	Left	153	185	32	21%	145	234	89	61%
	Through	311	453	143	46%	440	721	281	64%
	Right	49	99	51	104%	71	187	116	163%
	EB Total	512	737	225	44%	656	1,142	486	74%
WEST BOUND	Left	187	173	-14	-7%	178	130	-48	-27%
	Through	488	557	70	14%	393	499	106	27%
	Right	115	63	-52	-45%	62	28	-34	-54%
	WB Total	790	793	4	0%	632	657	25	4%
TOTAL ENTERING VOLUME		3,696	4,139	443	12%	3,753	4,490	738	20%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,278	1,388			
North Leg	Outbound	1,230	1,180			
North Leg	**TOTAL**	**2,508**	**2,568**	**8%**	**8%**	**31,838**
South Leg	Inbound	1,331	1,303			
South Leg	Outbound	1,231	1,270			
South Leg	**TOTAL**	**2,562**	**2,573**	**5%**	**6%**	**46,642**
East Leg	Inbound	793	657			
East Leg	Outbound	781	1,030			
East Leg	**TOTAL**	**1,574**	**1,687**	**9%**	**10%**	**17,656**
West Leg	Inbound	737	1,142			
West Leg	Outbound	897	1,010			
West Leg	**TOTAL**	**1,634**	**2,152**	**10%**	**13%**	**16,597**
OVERALL TOTAL		***8,278***	***8,980***	***7%***	***8%***	***112,733***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[22 Euclid_Riverside.xls]Output (3)

Project: Majestic Chino Heritage
Scenario: Horizon Year (2040)

Job #: 10349
Analyst: CS
Date: 4/3/19

LOCATION: Euclid Avenue (SR-83) & Chino Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	46	64	18	39%	39	38	-1	-1%
	Through	971	1,128	158	16%	1,163	1,128	-35	-3%
	Right	129	180	52	40%	219	261	42	19%
	NB Total	1,145	1,372	227	20%	1,421	1,427	7	0%
SOUTH BOUND	Left	56	69	14	24%	24	35	11	46%
	Through	1,007	967	-40	-4%	999	1,092	94	9%
	Right	92	113	21	23%	69	85	16	23%
	SB Total	1,154	1,149	-5	0%	1,092	1,212	121	11%
EAST BOUND	Left	104	126	23	22%	93	134	42	45%
	Through	165	243	78	47%	273	487	214	78%
	Right	37	42	6	15%	47	61	15	31%
	EB Total	305	411	106	35%	412	682	270	66%
WEST BOUND	Left	71	105	34	48%	75	137	62	83%
	Through	151	285	134	89%	108	223	115	106%
	Right	51	80	30	58%	9	18	9	100%
	WB Total	273	470	198	72%	192	378	186	97%
TOTAL ENTERING VOLUME		2,877	3,402	525.5	18%	3,116	3,699	583	19%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,149	1,212			
North Leg	Outbound	1,334	1,280			
North Leg	**TOTAL**	**2,483**	**2,492**	**5%**	**5%**	**46,149**
South Leg	Inbound	1,372	1,427			
South Leg	Outbound	1,114	1,290			
South Leg	**TOTAL**	**2,486**	**2,717**	**6%**	**6%**	**44,774**
East Leg	Inbound	470	378			
East Leg	Outbound	492	783			
East Leg	**TOTAL**	**962**	**1,161**	**11%**	**13%**	**8,948**
West Leg	Inbound	411	682			
West Leg	Outbound	462	346			
West Leg	**TOTAL**	**873**	**1,028**	**9%**	**11%**	**9,480**
OVERALL TOTAL		***6,804***	***7,398***	**6%**	***7%***	***109,351***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[23 Euclid_Chino.xls]Output (3)

Project:	Majestic Chino Heritage	Job #:	10349
Scenario:	Horizon Year (2040)	Analyst:	CS
		Date:	4/3/19

LOCATION: Euclid Avenue (SR-83) / Schaefer Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	226	225	22500%	1	228	227	22700%
	Through	4	1,002	998	24950%	4	943	939	23475%
	Right	1	19	18	1800%	1	100	99	9900%
	NB Total	6	1,247	1,241	20683%	6	1,271	1,265	21083%
SOUTH BOUND	Left	1	39	38	3800%	1	199	198	19800%
	Through	4	973	969	24225%	4	1,004	1,000	25000%
	Right	1	457	456	45600%	1	455	454	45400%
	SB Total	6	1,469	1,463	24383%	6	1,658	1,652	27533%
EAST BOUND	Left	1	182	181	18100%	1	487	486	48600%
	Through	2	32	30	1500%	2	463	461	23050%
	Right	1	88	87	8700%	1	260	259	25900%
	EB Total	4	302	298	7450%	4	1,210	1,206	30150%
WEST BOUND	Left	1	89	88	8800%	1	39	38	3800%
	Through	2	377	375	18750%	2	158	156	7800%
	Right	1	186	185	18500%	1	73	72	7200%
	WB Total	4	652	648	16200%	4	270	266	6650%
TOTAL ENTERING VOLUME		20	3,670	3650	18250%	20	4,409	4389	21945%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,469	1,658			
North Leg	Outbound	1,370	1,503			
North Leg	**TOTAL**	**2,839**	**3,161**	**6%**	**7%**	**44,269**
South Leg	Inbound	1,247	1,271			
South Leg	Outbound	1,150	1,303			
South Leg	**TOTAL**	**2,397**	**2,574**	**6%**	**7%**	**38,681**
East Leg	Inbound	652	270			
East Leg	Outbound	90	762			
East Leg	**TOTAL**	**742**	**1,032**	**27%**	**37%**	**2,775**
West Leg	Inbound	302	1,210			
West Leg	Outbound	1,060	841			
West Leg	**TOTAL**	**1,362**	**2,051**	**10%**	**15%**	**13,750**
OVERALL TOTAL		***7,340***	***8,818***	***7%***	***9%***	***99,475***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[24 Euclid_Schaefer-SEMI.xls]Output (3)

Project: Majestic Chino Heritage
Scenario: Horizon Year (2040)

Job #: 10349
Analyst: CS
Date: 4/3/19

LOCATION: Euclid Avenue (SR-83) / Edison Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	208	107	-101	-49%	82	69	-13	-15%
	Through	869	856	-13	-1%	1,090	980	-110	-10%
	Right	37	152	115	311%	80	281	202	253%
	NB Total	1,114	1,115	2	0%	1,251	1,330	80	6%
SOUTH BOUND	Left	63	197	134	213%	28	165	137	489%
	Through	799	775	-24	-3%	1,016	895	-121	-12%
	Right	167	66	-101	-60%	111	158	47	42%
	SB Total	1,029	1,038	9	1%	1,155	1,218	63	5%
EAST BOUND	Left	156	134	-22	-14%	280	296	17	6%
	Through	237	853	616	260%	276	1,147	872	316%
	Right	97	108	11	11%	178	110	-68	-38%
	EB Total	490	1,095	606	124%	733	1,553	821	112%
WEST BOUND	Left	33	210	178	546%	76	428	353	467%
	Through	416	1,089	673	162%	64	585	521	814%
	Right	63	312	250	399%	25	237	213	867%
	WB Total	511	1,611	1,100	215%	164	1,250	1,086	662%
TOTAL ENTERING VOLUME		3,143	4,859	1716	55%	3,302	5,351	2049	62%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,038	1,218			
North Leg	Outbound	1,302	1,513			
North Leg	**TOTAL**	**2,340**	**2,731**	**6%**	**7%**	**38,168**
South Leg	Inbound	1,115	1,330			
South Leg	Outbound	1,093	1,433			
South Leg	**TOTAL**	**2,208**	**2,763**	**6%**	**7%**	**38,478**
East Leg	Inbound	1,611	1,250			
East Leg	Outbound	1,202	1,593			
East Leg	**TOTAL**	**2,813**	**2,843**	**6%**	**6%**	**49,894**
West Leg	Inbound	1,095	1,553			
West Leg	Outbound	1,262	812			
West Leg	**TOTAL**	**2,357**	**2,365**	**6%**	**6%**	**39,712**
OVERALL TOTAL		***9,718***	***10,702***	**6%**	***6%***	***166,252***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[25 Euclid_Edison.xls]Output (3)

Project: Majestic Chino Heritage
Scenario: Horizon Year (2040)

Job #: 10349
Analyst: CS
Date: 4/3/19

LOCATION: Euclid Avenue (SR-83) & Eucalyptus Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	70	69	6900%	1	69	68	6800%
	Through	4	1,006	1,002	25050%	4	910	906	22650%
	Right	1	133	132	13200%	1	383	382	38200%
	NB Total	6	1,209	1,203	20050%	6	1,362	1,356	22600%
SOUTH BOUND	Left	1	67	66	6600%	1	252	251	25100%
	Through	4	1,076	1,072	26800%	4	1,158	1,154	28850%
	Right	1	36	35	3500%	1	45	44	4400%
	SB Total	6	1,179	1,173	19550%	6	1,455	1,449	24150%
EAST BOUND	Left	1	26	25	2500%	1	46	45	4500%
	Through	1	30	29	2900%	1	175	174	17400%
	Right	1	54	53	5300%	1	89	88	8800%
	EB Total	3	110	107	3567%	3	310	307	10233%
WEST BOUND	Left	1	385	384	38400%	1	413	412	41200%
	Through	1	115	114	11400%	1	146	145	14500%
	Right	1	182	181	18100%	1	214	213	21300%
	WB Total	3	682	679	22633%	3	773	770	25667%
TOTAL ENTERING VOLUME		18	3,180	3162	17567%	18	3,900	3882	21567%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,179	1,455			
North Leg	Outbound	1,214	1,170			
North Leg	**TOTAL**	**2,393**	**2,625**	**6%**	**7%**	**38,478**
South Leg	Inbound	1,209	1,362			
South Leg	Outbound	1,515	1,660			
South Leg	**TOTAL**	**2,724**	**3,022**	**7%**	**7%**	**40,597**
East Leg	Inbound	682	773			
East Leg	Outbound	230	810			
East Leg	**TOTAL**	**912**	**1,583**	**11%**	**20%**	**7,941**
West Leg	Inbound	110	310			
West Leg	Outbound	221	260			
West Leg	**TOTAL**	**331**	**570**	**6%**	**10%**	**5,795**
OVERALL TOTAL		***6,360***	***7,800***	***7%***	***8%***	***92,811***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[26 Euclid_Eucalyptus-SEMI.xls]Output (3)

Project: Majestic Chino Heritage
Scenario: Horizon Year (2040)

Job #: 10349
Analyst: CS
Date: 4/3/19

LOCATION: Euclid Avenue (SR-83) & Merrill Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	0	-1	-100%	1	0	-1	-100%
	Through	5	1,158	1,153	23060%	5	1,310	1,305	26100%
	Right	2	267	265	13250%	2	735	733	36650%
	NB Total	8	1,425	1,417	17713%	8	2,045	2,037	25463%
SOUTH BOUND	Left	2	63	61	3050%	2	105	103	5150%
	Through	5	1,510	1,505	30100%	5	1,647	1,642	32840%
	Right	1	0	-1	-100%	1	0	-1	-100%
	SB Total	8	1,573	1,565	19563%	8	1,752	1,744	21800%
EAST BOUND	Left	1	0	-1	-100%	1	0	-1	-100%
	Through	1	0	-1	-100%	1	0	-1	-100%
	Right	1	0	-1	-100%	1	0	-1	-100%
	EB Total	3	0	-3	-100%	3	0	-3	-100%
WEST BOUND	Left	2	340	338	16900%	2	443	441	22050%
	Through	1	0	-1	-100%	1	0	-1	-100%
	Right	2	62	60	3000%	2	50	48	2400%
	WB Total	5	402	397	7940%	5	493	488	9760%
TOTAL ENTERING VOLUME		24	3,400	3376	14067%	24	4,290	4266	17775%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,573	1,752			
North Leg	Outbound	1,220	1,360			
North Leg	**TOTAL**	**2,793**	**3,112**	**7%**	**8%**	**40,597**
South Leg	Inbound	1,425	2,045			
South Leg	Outbound	1,850	2,090			
South Leg	**TOTAL**	**3,275**	**4,135**	**7%**	**9%**	**46,812**
East Leg	Inbound	402	493			
East Leg	Outbound	330	840			
East Leg	**TOTAL**	**732**	**1,333**	**6%**	**12%**	**11,557**
West Leg	Inbound	0	0			
West Leg	Outbound	0	0			
West Leg	**TOTAL**	**0**	**0**	**#DIV/0!**	**#DIV/0!**	**-**
OVERALL TOTAL		***6,800***	***8,580***	***7%***	***9%***	***98,966***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[27 Euclid_Merrill-SEMI.xls]Output (3)

Project:	Majestic Chino Heritage	Job #:	10349
Scenario:	Horizon Year (2040)	Analyst:	CS
		Date:	4/3/19

LOCATION: Euclid Avenue (SR-83) & Kimball Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	178	177	17700%	1	147	146	14600%
	Through	5	883	878	17560%	5	1,270	1,265	25300%
	Right	1	62	61	6100%	1	159	158	15800%
	NB Total	7	1,123	1,116	15943%	7	1,576	1,569	22414%
SOUTH BOUND	Left	1	160	159	15900%	1	441	440	44000%
	Through	5	1,228	1,223	24460%	5	1,240	1,235	24700%
	Right	1	458	457	45700%	1	408	407	40700%
	SB Total	7	1,846	1,839	26271%	7	2,089	2,082	29743%
EAST BOUND	Left	1	203	202	20200%	1	587	586	58600%
	Through	2	128	126	6300%	2	660	658	32900%
	Right	1	109	108	10800%	1	206	205	20500%
	EB Total	4	440	436	10900%	4	1,453	1,449	36225%
WEST BOUND	Left	1	226	225	22500%	1	103	102	10200%
	Through	2	757	755	37750%	2	305	303	15150%
	Right	1	418	417	41700%	1	293	292	29200%
	WB Total	4	1,401	1,397	34925%	4	701	697	17425%
TOTAL ENTERING VOLUME		22	4,810	4788	21764%	22	5,819	5797	26350%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,846	2,089			
North Leg	Outbound	1,504	2,150			
North Leg	**TOTAL**	**3,350**	**4,239**	**7%**	**9%**	**46,812**
South Leg	Inbound	1,123	1,576			
South Leg	Outbound	1,563	1,549			
South Leg	**TOTAL**	**2,686**	**3,125**	**7%**	**9%**	**36,201**
East Leg	Inbound	1,401	701			
East Leg	Outbound	350	1,260			
East Leg	**TOTAL**	**1,751**	**1,961**	**9%**	**10%**	**20,541**
West Leg	Inbound	440	1,453			
West Leg	Outbound	1,393	860			
West Leg	**TOTAL**	**1,833**	**2,313**	**8%**	**11%**	**21,734**
OVERALL TOTAL		***9,620***	***11,638***	**8%**	***9%***	***125,288***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[28 Euclid_Kimball-SEMI.xls]Output (3)

Project:	Majestic Chino Heritage	Job #:	10349
Scenario:	Horizon Year (2040)	Analyst:	CS
		Date:	4/3/19

LOCATION: Euclid Avenue (SR-83) & Bickmore Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	45	44	4400%	1	13	12	1200%
	Through	5	932	927	18540%	5	1,323	1,318	26360%
	Right	1	26	25	2500%	1	72	71	7100%
	NB Total	7	1,003	996	14229%	7	1,408	1,401	20014%
SOUTH BOUND	Left	1	107	106	10600%	1	187	186	18600%
	Through	5	1,220	1,215	24300%	5	1,289	1,284	25680%
	Right	1	184	183	18300%	1	33	32	3200%
	SB Total	7	1,511	1,504	21486%	7	1,509	1,502	21457%
EAST BOUND	Left	1	26	25	2500%	1	86	85	8500%
	Through	1	7	6	600%	1	42	41	4100%
	Right	1	8	7	700%	1	32	31	3100%
	EB Total	3	41	38	1267%	3	160	157	5233%
WEST BOUND	Left	1	52	51	5100%	1	62	61	6100%
	Through	1	71	70	7000%	1	14	13	1300%
	Right	1	162	161	16100%	1	166	165	16500%
	WB Total	3	285	282	9400%	3	242	239	7967%
TOTAL ENTERING VOLUME		20	2,840	2820	14100%	20	3,319	3299	16495%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,511	1,509			
North Leg	Outbound	1,120	1,575			
North Leg	**TOTAL**	**2,631**	**3,084**	**7%**	**9%**	**36,201**
South Leg	Inbound	1,003	1,408			
South Leg	Outbound	1,280	1,383			
South Leg	**TOTAL**	**2,283**	**2,791**	**7%**	**8%**	**32,928**
East Leg	Inbound	285	242			
East Leg	Outbound	140	301			
East Leg	**TOTAL**	**425**	**543**	**7%**	**9%**	**6,166**
West Leg	Inbound	41	160			
West Leg	Outbound	300	60			
West Leg	**TOTAL**	**341**	**220**	**12%**	**8%**	**2,893**
OVERALL TOTAL		***5,680***	***6,638***	***7%***	***8%***	***78,188***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[29 Euclid_Bickmore-SEMI.xls]Output (3)

Project: Majestic Chino Hertiage
Scenario: Horizon Year (2040)

Job #: 10349
Analyst: CS
Date: 4/3/19

LOCATION: Euclid Avenue (SR-83) & Pine Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	171	170	17000%	1	278	277	27700%
	Through	5	535	530	10600%	5	1,011	1,006	20120%
	Right	1	214	213	21300%	1	891	890	89000%
	NB Total	7	920	913	13043%	7	2,180	2,173	31043%
SOUTH BOUND	Left	1	163	162	16200%	1	391	390	39000%
	Through	5	987	982	19640%	5	867	862	17240%
	Right	1	130	129	12900%	1	122	121	12100%
	SB Total	7	1,280	1,273	18186%	7	1,380	1,373	19614%
EAST BOUND	Left	1	84	83	8300%	1	115	114	11400%
	Through	2	303	301	15050%	2	911	909	45450%
	Right	1	204	203	20300%	1	224	223	22300%
	EB Total	4	591	587	14675%	4	1,250	1,246	31150%
WEST BOUND	Left	1	829	828	82800%	1	482	481	48100%
	Through	2	980	978	48900%	2	611	609	30450%
	Right	1	341	340	34000%	1	247	246	24600%
	WB Total	4	2,150	2,146	53650%	4	1,340	1,336	33400%
TOTAL ENTERING VOLUME		22	4,941	4919	22359%	22	6,150	6128	27855%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,280	1,380			
North Leg	Outbound	960	1,373			
North Leg	**TOTAL**	**2,240**	**2,753**	**7%**	**8%**	**32,928**
South Leg	Inbound	920	2,180			
South Leg	Outbound	2,020	1,573			
South Leg	**TOTAL**	**2,940**	**3,753**	**8%**	**10%**	**37,354**
East Leg	Inbound	2,150	1,340			
East Leg	Outbound	680	2,193			
East Leg	**TOTAL**	**2,830**	**3,533**	**8%**	**10%**	**34,812**
West Leg	Inbound	591	1,250			
West Leg	Outbound	1,281	1,011			
West Leg	**TOTAL**	**1,872**	**2,261**	**7%**	**9%**	**25,646**
OVERALL TOTAL		***9,882***	***12,300***	**8%**	***9%***	***130,740***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[30 Euclid_Pine-SEMI.xls]Output (3)

Project:	Majestic Chino Hertiage	Job #:	10349
Scenario:	Horizon Year (2040)	Analyst:	CS
		Date:	4/3/19

LOCATION: Rincon Meadows Av. & Kimall Av.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	220	219	21900%	1	79	78	7800%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	121	120	12000%	1	131	130	13000%
	NB Total	2	341	339	16950%	2	210	208	10400%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	319	317	15850%	2	1,079	1,077	53850%
	Right	1	36	35	3500%	1	179	178	17800%
	EB Total	3	355	352	11733%	3	1,258	1,255	41833%
WEST BOUND	Left	1	74	73	7300%	1	171	170	17000%
	Through	2	1,180	1,178	58900%	2	621	619	30950%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	3	1,254	1,251	41700%	3	792	789	26300%
TOTAL ENTERING VOLUME		8	1,950	1942	24275%	8	2,260	2252	28150%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	0	0			
North Leg	Outbound	0	0			
North Leg	**TOTAL**	**0**	**0**	**#DIV/0!**	**#DIV/0!**	**-**
South Leg	Inbound	341	210			
South Leg	Outbound	110	350			
South Leg	**TOTAL**	**451**	**560**	**8%**	**9%**	**5,934**
East Leg	Inbound	1,254	792			
East Leg	Outbound	440	1,210			
East Leg	**TOTAL**	**1,694**	**2,002**	**9%**	**10%**	**19,643**
West Leg	Inbound	355	1,258			
West Leg	Outbound	1,400	700			
West Leg	**TOTAL**	**1,755**	**1,958**	**9%**	**10%**	**20,541**
OVERALL TOTAL		***3,900***	***4,520***	**8%**	***10%***	***46,118***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[31 Rincon Meadows_Kimball-SEMI.xls]Output (3)

Project:	Majestic Chino Heritage	Job #:	10349
Scenario:	Horizon Year (2040)	Analyst:	CS
		Date:	4/3/19

LOCATION: Rincon Meadows Av. & Pine Av.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	0	-1	-100%	1	0	-1	-100%
	Through	2	0	-2	-100%	2	0	-2	-100%
	Right	1	0	-1	-100%	1	0	-1	-100%
	NB Total	4	0	-4	-100%	4	0	-4	-100%
SOUTH BOUND	Left	1	134	133	13300%	1	336	335	33500%
	Through	2	0	-2	-100%	2	0	-2	-100%
	Right	1	227	226	22600%	1	194	193	19300%
	SB Total	4	361	357	8925%	4	530	526	13150%
EAST BOUND	Left	1	135	134	13400%	1	256	255	25500%
	Through	2	556	554	27700%	2	1,934	1,932	96600%
	Right	1	0	-1	-100%	1	0	-1	-100%
	EB Total	4	691	687	17175%	4	2,190	2,186	54650%
WEST BOUND	Left	1	0	-1	-100%	1	0	-1	-100%
	Through	2	1,923	1,921	96050%	2	1,146	1,144	57200%
	Right	1	275	274	27400%	1	264	263	26300%
	WB Total	4	2,198	2,194	54850%	4	1,410	1,406	35150%
TOTAL ENTERING VOLUME		16	3,250	3234	20213%	16	4,130	4114	25713%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	361	530			
North Leg	Outbound	410	520			
North Leg	**TOTAL**	**771**	**1,050**	**5%**	**7%**	**14,080**
South Leg	Inbound	0	0			
South Leg	Outbound	0	0			
South Leg	**TOTAL**	**0**	**0**	**0%**	**0%**	**56**
East Leg	Inbound	2,198	1,410			
East Leg	Outbound	690	2,270			
East Leg	**TOTAL**	**2,888**	**3,680**	**8%**	**10%**	**36,277**
West Leg	Inbound	691	2,190			
West Leg	Outbound	2,150	1,340			
West Leg	**TOTAL**	**2,841**	**3,530**	**8%**	**10%**	**34,812**
OVERALL TOTAL		***6,500***	***8,260***	**8%**	***10%***	***85,225***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[32 Rincon Meadows_Pine-SEMI.xls]Output (3)

Project: Majestic Chino Hertiage
Scenario: Horizon Year (2040)

Job #: 10349
Analyst: CS
Date: 4/3/19

LOCATION: Mill Creek Av. & Kimball Av.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	196	195	19500%	1	91	90	9000%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	136	135	13500%	1	60	59	5900%
	NB Total	2	332	330	16500%	2	151	149	7450%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	424	422	21100%	2	1,040	1,038	51900%
	Right	1	26	25	2500%	1	146	145	14500%
	EB Total	3	450	447	14900%	3	1,186	1,183	39433%
WEST BOUND	Left	1	44	43	4300%	1	64	63	6300%
	Through	2	1,064	1,062	53100%	2	699	697	34850%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	3	1,108	1,105	36833%	3	763	760	25333%
TOTAL ENTERING VOLUME		8	1,890	1882	23525%	8	2,100	2092	26150%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	0	0			
North Leg	Outbound	0	0			
North Leg	**TOTAL**	**0**	**0**	**#DIV/0!**	**#DIV/0!**	**-**
South Leg	Inbound	332	151			
South Leg	Outbound	70	210			
South Leg	**TOTAL**	**402**	**361**	**8%**	**7%**	**5,283**
East Leg	Inbound	1,108	763			
East Leg	Outbound	560	1,100			
East Leg	**TOTAL**	**1,668**	**1,863**	**9%**	**10%**	**19,493**
West Leg	Inbound	450	1,186			
West Leg	Outbound	1,260	790			
West Leg	**TOTAL**	**1,710**	**1,976**	**9%**	**10%**	**19,643**
OVERALL TOTAL		***3,780***	***4,200***	**9%**	***9%***	***44,419***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[33 Mill Creek_Kimball-SEMI.xls]Output (3)

Project:	Majestic Chino Heritage	Job #:	10349
Scenario:	Horizon Year (2040)	Analyst:	CS
		Date:	4/3/19

LOCATION: Mill Creek Av. & Pine Av.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	63	108	46	73%	43	121	79	185%
	Through	12	11	-1	-4%	25	28	4	14%
	Right	14	12	-2	-11%	44	84	40	91%
	NB Total	88	131	44	50%	111	233	122	110%
SOUTH BOUND	Left	27	15	-12	-43%	31	23	-8	-25%
	Through	32	37	6	17%	9	10	1	11%
	Right	44	48	5	10%	34	39	5	15%
	SB Total	102	100	-2	-1%	74	72	-2	-2%
EAST BOUND	Left	34	45	12	34%	37	36	-1	-3%
	Through	741	916	175	24%	1,452	2,323	872	60%
	Right	72	185	113	157%	23	52	29	126%
	EB Total	847	1,146	300	35%	1,512	2,411	900	60%
WEST BOUND	Left	61	109	48	79%	15	29	15	100%
	Through	1,239	2,090	852	69%	519	1,100	582	112%
	Right	122	114	-8	-7%	30	26	-4	-13%
	WB Total	1,422	2,313	892	63%	563	1,155	592	105%
TOTAL ENTERING VOLUME		2,457	3,690	1233	50%	2,259	3,871	1612	71%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	100	72			
North Leg	Outbound	170	90			
North Leg	**TOTAL**	**270**	**162**	**#DIV/0!**	**#DIV/0!**	**-**
South Leg	Inbound	131	233			
South Leg	Outbound	331	91			
South Leg	**TOTAL**	**462**	**324**	**4%**	**3%**	**11,071**
East Leg	Inbound	2,313	1,155			
East Leg	Outbound	943	2,430			
East Leg	**TOTAL**	**3,256**	**3,585**	**13%**	**14%**	**25,888**
West Leg	Inbound	1,146	2,411			
West Leg	Outbound	2,246	1,260			
West Leg	**TOTAL**	**3,392**	**3,671**	**9%**	**10%**	**36,277**
OVERALL TOTAL		***7,380***	***7,742***	**10%**	***11%***	***73,236***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[34 Mill Creek_Pine.xls]Output (3)

Project:	Majestic Chino Heritage	Job #:	10349
Scenario:	Horizon Year (2040)	Analyst:	CS
		Date:	4/3/19

LOCATION: West Preserve Loop / Pine
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	0	-1	-100%	1	0	-1	-100%
	Through	1	0	-1	-100%	1	0	-1	-100%
	Right	1	0	-1	-100%	1	0	-1	-100%
	NB Total	3	0	-3	-100%	3	0	-3	-100%
SOUTH BOUND	Left	1	94	93	9300%	1	173	172	17200%
	Through	2	0	-2	-100%	2	0	-2	-100%
	Right	1	53	52	5200%	1	59	58	5800%
	SB Total	4	147	143	3575%	4	232	228	5700%
EAST BOUND	Left	1	42	41	4100%	1	74	73	7300%
	Through	3	368	365	12167%	3	1,707	1,704	56800%
	Right	1	0	-1	-100%	1	0	-1	-100%
	EB Total	5	410	405	8100%	5	1,781	1,776	35520%
WEST BOUND	Left	1	0	-1	-100%	1	0	-1	-100%
	Through	3	1,654	1,651	55033%	3	981	978	32600%
	Right	1	339	338	33800%	1	126	125	12500%
	WB Total	5	1,993	1,988	39760%	5	1,107	1,102	22040%
TOTAL ENTERING VOLUME		17	2,550	2533	14900%	17	3,120	3103	18253%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	147	232			
North Leg	Outbound	381	200			
North Leg	**TOTAL**	**528**	**432**	**8%**	**6%**	**6,964**
South Leg	Inbound	0	0			
South Leg	Outbound	0	0			
South Leg	**TOTAL**	**0**	**0**	**#DIV/0!**	**#DIV/0!**	**-**
East Leg	Inbound	1,993	1,107			
East Leg	Outbound	462	1,880			
East Leg	**TOTAL**	**2,455**	**2,987**	**8%**	**10%**	**30,499**
West Leg	Inbound	410	1,781			
West Leg	Outbound	1,707	1,040			
West Leg	**TOTAL**	**2,117**	**2,821**	**8%**	**11%**	**25,888**
OVERALL TOTAL		***5,100***	***6,240***	**8%**	***10%***	***63,351***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[36 W Preserve Loop_Pine-SEMI NEW SBTAM.xls]Output (3)

Project: Majestic Chino Hertiage
Scenario: Horizon Year (2040)

Job #: 10349
Analyst: CS
Date: 4/3/19

LOCATION: Main Street & Kimball Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	347	346	34600%	1	142	141	14100%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	273	272	27200%	1	130	129	12900%
	NB Total	2	620	618	30900%	2	272	270	13500%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	497	495	24750%	2	780	778	38900%
	Right	1	64	63	6300%	1	323	322	32200%
	EB Total	3	561	558	18600%	3	1,103	1,100	36667%
WEST BOUND	Left	1	76	75	7500%	1	227	226	22600%
	Through	2	763	761	38050%	2	598	596	29800%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	3	839	836	27867%	3	825	822	27400%
TOTAL ENTERING VOLUME		8	2,020	2012	25150%	8	2,200	2192	27400%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	0	0			
North Leg	Outbound	0	0			
North Leg	**TOTAL**	**0**	**0**	**#DIV/0!**	**#DIV/0!**	**-**
South Leg	Inbound	620	272			
South Leg	Outbound	140	550			
South Leg	**TOTAL**	**760**	**822**	**8%**	**9%**	**9,344**
East Leg	Inbound	839	825			
East Leg	Outbound	770	910			
East Leg	**TOTAL**	**1,609**	**1,735**	**9%**	**9%**	**18,287**
West Leg	Inbound	561	1,103			
West Leg	Outbound	1,110	740			
West Leg	**TOTAL**	**1,671**	**1,843**	**9%**	**9%**	**19,493**
OVERALL TOTAL		***4,040***	***4,400***	**9%**	***9%***	***47,124***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[37 Main_Kimball-SEMI.xls]Output (3)

Project:	Majestic Chino Hertiage	Job #:	10349
Scenario:	Horizon Year (2040)	Analyst:	CS
		Date:	4/3/19

LOCATION: Flight Av. & Kimball Av.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	NB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
SOUTH BOUND	Left	1	7	6	600%	1	193	192	19200%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	134	133	13300%	1	449	448	44800%
	SB Total	2	141	139	6950%	2	642	640	32000%
EAST BOUND	Left	1	608	607	60700%	1	279	278	27800%
	Through	2	154	152	7600%	2	627	625	31250%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	EB Total	3	762	759	25300%	3	906	903	30100%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	710	708	35400%	2	371	369	18450%
	Right	1	147	146	14600%	1	71	70	7000%
	WB Total	3	857	854	28467%	3	442	439	14633%
TOTAL ENTERING VOLUME		8	1,760	1752	21900%	8	1,990	1982	24775%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	141	642			
North Leg	Outbound	755	350			
North Leg	**TOTAL**	**896**	**992**	**8%**	**9%**	**11,471**
South Leg	Inbound	0	0			
South Leg	Outbound	0	0			
South Leg	**TOTAL**	**0**	**0**	**#DIV/0!**	**#DIV/0!**	**-**
East Leg	Inbound	857	442			
East Leg	Outbound	161	820			
East Leg	**TOTAL**	**1,018**	**1,262**	**9%**	**12%**	**10,790**
West Leg	Inbound	762	906			
West Leg	Outbound	844	820			
West Leg	**TOTAL**	**1,606**	**1,726**	**9%**	**9%**	**18,287**
OVERALL TOTAL		***3,520***	***3,980***	**9%**	***10%***	***40,548***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[38 Flight_Kimball-SEMI.xls]Output (3)

Project:	Majestic Chino Heritage	Job #:	10349
Scenario:	Horizon Year (2040)	Analyst:	CS
		Date:	4/3/19

LOCATION: East Preserve Loop & Pine Av.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	575	574	57400%	1	121	120	12000%
	Through	2	185	183	9150%	2	188	186	9300%
	Right	1	400	399	39900%	1	160	159	15900%
	NB Total	4	1,160	1,156	28900%	4	469	465	11625%
SOUTH BOUND	Left	1	133	132	13200%	1	68	67	6700%
	Through	2	165	163	8150%	2	211	209	10450%
	Right	1	192	191	19100%	1	51	50	5000%
	SB Total	4	490	486	12150%	4	330	326	8150%
EAST BOUND	Left	1	20	19	1900%	1	166	165	16500%
	Through	3	387	384	12800%	3	1,272	1,269	42300%
	Right	1	53	52	5200%	1	441	440	44000%
	EB Total	5	460	455	9100%	5	1,879	1,874	37480%
WEST BOUND	Left	1	121	120	12000%	1	438	437	43700%
	Through	3	1,263	1,260	42000%	3	957	954	31800%
	Right	1	45	44	4400%	1	165	164	16400%
	WB Total	5	1,429	1,424	28480%	5	1,560	1,555	31100%
TOTAL ENTERING VOLUME		18	3,539	3521	19561%	18	4,238	4220	23444%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	490	330			
North Leg	Outbound	250	519			
North Leg	**TOTAL**	**740**	**849**	**7%**	**7%**	**11,367**
South Leg	Inbound	1,160	469			
South Leg	Outbound	339	1,090			
South Leg	**TOTAL**	**1,499**	**1,559**	**7%**	**8%**	**20,015**
East Leg	Inbound	1,429	1,560			
East Leg	Outbound	920	1,500			
East Leg	**TOTAL**	**2,349**	**3,060**	**8%**	**10%**	**30,186**
West Leg	Inbound	460	1,879			
West Leg	Outbound	2,030	1,129			
West Leg	**TOTAL**	**2,490**	**3,008**	**8%**	**10%**	**30,499**
OVERALL TOTAL		***7,078***	***8,476***	**8%**	***9%***	***92,067***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[39 E Preserve Loop_Pine-SEMI.xls]Output (3)

Project: Majestic Chino Heritage
Scenario: Horizon Year (2040)

Job #: 10349
Analyst: CS
Date: 4/3/19

LOCATION: Hellman Avenue & Kimball Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	163	162	16200%	1	192	191	19100%
	Through	2	60	58	2900%	2	48	46	2300%
	Right	1	298	297	29700%	1	430	429	42900%
	NB Total	4	521	517	12925%	4	670	666	16650%
SOUTH BOUND	Left	1	21	20	2000%	1	43	42	4200%
	Through	2	28	26	1300%	2	68	66	3300%
	Right	1	11	10	1000%	1	19	18	1800%
	SB Total	4	60	56	1400%	4	130	126	3150%
EAST BOUND	Left	1	20	19	1900%	1	18	17	1700%
	Through	3	601	598	19933%	3	967	964	32133%
	Right	1	132	131	13100%	1	258	257	25700%
	EB Total	5	753	748	14960%	5	1,243	1,238	24760%
WEST BOUND	Left	1	331	330	33000%	1	483	482	48200%
	Through	3	825	822	27400%	3	809	806	26867%
	Right	1	50	49	4900%	1	34	33	3300%
	WB Total	5	1,206	1,201	24020%	5	1,326	1,321	26420%
TOTAL ENTERING VOLUME		18	2,540	2522	14011%	18	3,369	3351	18617%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	60	130			
North Leg	Outbound	130	100			
North Leg	**TOTAL**	**190**	**230**	**8%**	**9%**	**2,515**
South Leg	Inbound	521	670			
South Leg	Outbound	491	809			
South Leg	**TOTAL**	**1,012**	**1,479**	**7%**	**10%**	**14,860**
East Leg	Inbound	1,206	1,326			
East Leg	Outbound	920	1,440			
East Leg	**TOTAL**	**2,126**	**2,766**	**6%**	**8%**	**33,374**
West Leg	Inbound	753	1,243			
West Leg	Outbound	999	1,020			
West Leg	**TOTAL**	**1,752**	**2,263**	**6%**	**8%**	**27,325**
OVERALL TOTAL		***5,080***	***6,738***	***7%***	***9%***	***78,074***

U:\UcJobs_10100-10500_10300\10349\Post Processing\[40 Hellman_Kimball-SEMI OLD.xls]Output (3)

Project: Majestic Chino Heritage
Scenario: Horizon Year (2040)

Job #: 10349
Analyst: CS
Date: 4/3/19

LOCATION: Hellman Avenue & Pine Avenue/Schleisman Road
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	289	288	28800%	1	237	236	23600%
	Through	2	255	253	12650%	2	74	72	3600%
	Right	1	146	145	14500%	1	69	68	6800%
	NB Total	4	690	686	17150%	4	380	376	9400%
SOUTH BOUND	Left	1	19	18	1800%	1	85	84	8400%
	Through	2	14	12	600%	2	303	301	15050%
	Right	1	37	36	3600%	1	293	292	29200%
	SB Total	4	70	66	1650%	4	681	677	16925%
EAST BOUND	Left	1	243	242	24200%	1	186	185	18500%
	Through	2	556	554	27700%	2	687	685	34250%
	Right	1	108	107	10700%	1	614	613	61300%
	EB Total	4	907	903	22575%	4	1,487	1,483	37075%
WEST BOUND	Left	1	107	106	10600%	1	264	263	26300%
	Through	2	1,094	1,092	54600%	2	1,020	1,018	50900%
	Right	1	241	240	24000%	1	80	79	7900%
	WB Total	4	1,442	1,438	35950%	4	1,364	1,360	34000%
TOTAL ENTERING VOLUME		16	3,109	3093	19331%	16	3,912	3896	24350%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	70	681			
North Leg	Outbound	739	340			
North Leg	**TOTAL**	**809**	**1,021**	**10%**	**13%**	**8,097**
South Leg	Inbound	690	380			
South Leg	Outbound	229	1,181			
South Leg	**TOTAL**	**919**	**1,561**	**10%**	**17%**	**9,302**
East Leg	Inbound	1,442	1,364			
East Leg	Outbound	721	841			
East Leg	**TOTAL**	**2,163**	**2,205**	**8%**	**8%**	**27,850**
West Leg	Inbound	907	1,487			
West Leg	Outbound	1,420	1,550			
West Leg	**TOTAL**	**2,327**	**3,037**	**8%**	**10%**	**30,186**
OVERALL TOTAL		***6,218***	***7,824***	**8%**	***10%***	***75,435***

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Project:	Majestic Chino Heritage	Job #:	10349
Scenario:	Horizon Year (2040)	Analyst:	CS
		Date:	4/3/19

LOCATION: Archibald Av. & Limonite Av.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	149	148	14800%	1	131	130	13000%
	Through	3	1,085	1,082	36067%	3	1,129	1,126	37533%
	Right	1	316	315	31500%	1	461	460	46000%
	NB Total	5	1,550	1,545	30900%	5	1,721	1,716	34320%
SOUTH BOUND	Left	1	406	405	40500%	1	968	967	96700%
	Through	3	753	750	25000%	3	1,447	1,444	48133%
	Right	1	191	190	19000%	1	275	274	27400%
	SB Total	5	1,350	1,345	26900%	5	2,690	2,685	53700%
EAST BOUND	Left	1	209	208	20800%	1	208	207	20700%
	Through	2	548	546	27300%	2	765	763	38150%
	Right	1	113	112	11200%	1	127	126	12600%
	EB Total	4	870	866	21650%	4	1,100	1,096	27400%
WEST BOUND	Left	1	354	353	35300%	1	419	418	41800%
	Through	2	810	808	40400%	2	716	714	35700%
	Right	1	656	655	65500%	1	686	685	68500%
	WB Total	4	1,820	1,816	45400%	4	1,821	1,817	45425%
TOTAL ENTERING VOLUME		18	5,590	5572	30956%	18	7,332	7314	40633%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,350	2,690			
North Leg	Outbound	1,950	2,023			
North Leg	**TOTAL**	**3,300**	**4,713**	**8%**	**11%**	**43,045**
South Leg	Inbound	1,550	1,721			
South Leg	Outbound	1,220	1,993			
South Leg	**TOTAL**	**2,770**	**3,714**	**8%**	**11%**	**32,939**
East Leg	Inbound	1,820	1,821			
East Leg	Outbound	1,270	2,194			
East Leg	**TOTAL**	**3,090**	**4,015**	**8%**	**10%**	**40,353**
West Leg	Inbound	870	1,100			
West Leg	Outbound	1,150	1,122			
West Leg	**TOTAL**	**2,020**	**2,222**	**8%**	**9%**	**25,789**
OVERALL TOTAL		***11,180***	***14,664***	**8%**	***10%***	***142,126***

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Project: Majestic Chino Heritage
Scenario: Horizon Year (2040)

Job #: 10349
Analyst: CS
Date: 4/3/19

LOCATION: Archibald Av. & Schleisman Rd.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	241	164	-77	-32%	178	164	-14	-8%
	Through	776	958	182	23%	593	1,104	511	86%
	Right	215	410	195	91%	109	264	155	142%
	NB Total	1,232	1,532	300	24%	880	1,532	652	74%
SOUTH BOUND	Left	103	352	249	242%	160	575	415	259%
	Through	440	734	294	67%	641	971	330	51%
	Right	420	511	91	22%	300	411	111	37%
	SB Total	963	1,597	634	66%	1,101	1,957	856	78%
EAST BOUND	Left	383	542	159	42%	372	473	101	27%
	Through	375	820	445	119%	993	1,642	649	65%
	Right	113	121	8	7%	172	120	-52	-30%
	EB Total	871	1,483	612	70%	1,537	2,235	698	45%
WEST BOUND	Left	248	537	289	117%	108	359	251	232%
	Through	701	1,107	406	58%	308	925	617	200%
	Right	137	393	256	187%	55	333	278	505%
	WB Total	1,086	2,037	951	88%	471	1,617	1,146	243%
TOTAL ENTERING VOLUME		4,152	6,649	2497	60%	3,989	7,341	3352	84%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,597	1,957			
North Leg	Outbound	1,893	1,910			
North Leg	**TOTAL**	**3,490**	**3,867**	**12%**	**13%**	**29,670**
South Leg	Inbound	1,532	1,532			
South Leg	Outbound	1,392	1,450			
South Leg	**TOTAL**	**2,924**	**2,982**	**12%**	**12%**	**24,970**
East Leg	Inbound	2,037	1,617			
East Leg	Outbound	1,582	2,481			
East Leg	**TOTAL**	**3,619**	**4,098**	**9%**	**10%**	**41,823**
West Leg	Inbound	1,483	2,235			
West Leg	Outbound	1,782	1,500			
West Leg	**TOTAL**	**3,265**	**3,735**	**10%**	**11%**	**34,256**
OVERALL TOTAL		***13,298***	***14,682***	**10%**	***11%***	***130,719***

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APPENDIX 6.1:

E+P (BUILDING 1) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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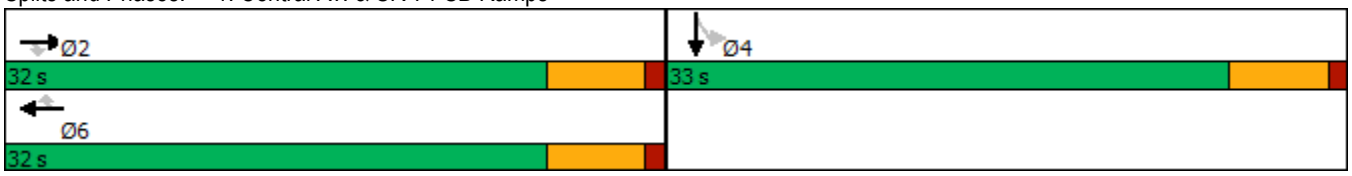
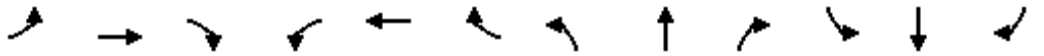
Lane Group	EBT	EBR	WBT	WBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1403	93	686	182	510	0
Future Volume (vph)	1403	93	686	182	510	0
Turn Type	NA	Perm	NA	Perm	Perm	NA
Protected Phases	2		6			4
Permitted Phases		2		6	4	
Detector Phase	2	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	22.8	22.8	15.8	15.8
Total Split (s)	32.0	32.0	32.0	32.0	33.0	33.0
Total Split (%)	49.2%	49.2%	49.2%	49.2%	50.8%	50.8%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max	Max	None	None

Intersection Summary
Cycle Length: 65
Actuated Cycle Length: 60.3
Natural Cycle: 45
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Central Av. & SR-71 SB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱↱				↰	✣	
Traffic Volume (veh/h)	0	1403	93	0	686	182	0	0	0	510	0	316
Future Volume (veh/h)	0	1403	93	0	686	182	0	0	0	510	0	316
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	0	1594	0	0	780	0				386	272	192
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2409		0	2409					597	342	241
Arrive On Green	0.00	0.46	0.00	0.00	0.46	0.00				0.33	0.33	0.33
Sat Flow, veh/h	0	5358	1610	0	5358	2834				1810	1037	732
Grp Volume(v), veh/h	0	1594	0	0	780	0				386	0	464
Grp Sat Flow(s),veh/h/ln	0	1729	1610	0	1729	1417				1810	0	1768
Q Serve(g_s), s	0.0	13.4	0.0	0.0	5.3	0.0				10.2	0.0	13.4
Cycle Q Clear(g_c), s	0.0	13.4	0.0	0.0	5.3	0.0				10.2	0.0	13.4
Prop In Lane	0.00		1.00	0.00		1.00				1.00		0.41
Lane Grp Cap(c), veh/h	0	2409		0	2409					597	0	584
V/C Ratio(X)	0.00	0.66		0.00	0.32					0.65	0.00	0.80
Avail Cap(c_a), veh/h	0	2409		0	2409					872	0	853
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	11.7	0.0	0.0	9.5	0.0				16.1	0.0	17.2
Incr Delay (d2), s/veh	0.0	1.4	0.0	0.0	0.4	0.0				1.2	0.0	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.0	0.0	0.0	1.6	0.0				3.6	0.0	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	13.1	0.0	0.0	9.9	0.0				17.3	0.0	20.5
LnGrp LOS	A	B		A	A					B	A	C
Approach Vol, veh/h		1594	A		780	A					850	
Approach Delay, s/veh		13.1			9.9						19.0	
Approach LOS		B			A						B	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		32.0		24.4		32.0						
Change Period (Y+Rc), s		5.8		5.8		5.8						
Max Green Setting (Gmax), s		26.2		27.2		26.2						
Max Q Clear Time (g_c+I1), s		15.4		15.4		7.3						
Green Ext Time (p_c), s		8.4		3.2		6.4						

Intersection Summary	
HCM 6th Ctrl Delay	13.9
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

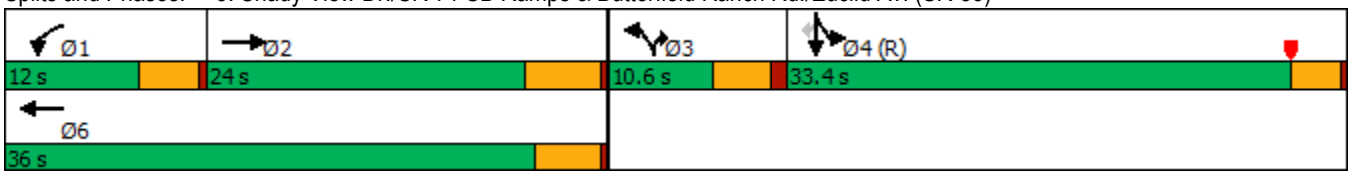
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

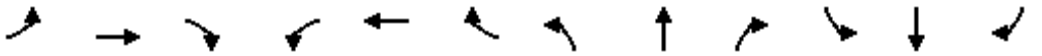
Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	686	195	275	19	288	628	26	40
Future Volume (vph)	686	195	275	19	288	628	26	40
Turn Type	NA	Prot	NA	Prot	Prot	Split	NA	Perm
Protected Phases	2	1	6	3	3	4	4	
Permitted Phases								4
Detector Phase	2	1	6	3	3	4	4	4
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	9.0	26.5	9.5	9.5	32.5	32.5	32.5
Total Split (s)	24.0	12.0	36.0	10.6	10.6	33.4	33.4	33.4
Total Split (%)	30.0%	15.0%	45.0%	13.3%	13.3%	41.8%	41.8%	41.8%
Yellow Time (s)	4.5	3.5	4.0	3.5	3.5	3.0	3.0	3.0
All-Red Time (s)	0.5	0.5	0.5	1.0	1.0	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	4.5	4.5	4.5	3.5	3.5	3.5
Lead/Lag	Lag	Lead		Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	None	None	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 4:SBTL, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 3: Shady View Dr./SR-71 SB Ramps & Butterfield Ranch Rd./Euclid Av. (SR-83)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	686	31	195	275	0	19	0	288	628	26	40
Future Volume (veh/h)	0	686	31	195	275	0	19	0	288	628	26	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	1900	0	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	700	23	199	281	0	19	0	225	660	0	25
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	792	26	181	1343		0	0	0	1888	0	840
Arrive On Green	0.00	0.22	0.22	0.03	0.12	0.00	0.00	0.00	0.00	0.52	0.00	0.52
Sat Flow, veh/h	0	3662	117	1810	3705	0		0		3619	0	1610
Grp Volume(v), veh/h	0	354	369	199	281	0		0.0		660	0	25
Grp Sat Flow(s),veh/h/ln	0	1805	1879	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	15.2	15.2	8.0	5.6	0.0				8.5	0.0	0.6
Cycle Q Clear(g_c), s	0.0	15.2	15.2	8.0	5.6	0.0				8.5	0.0	0.6
Prop In Lane	0.00		0.06	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	401	417	181	1343					1888	0	840
V/C Ratio(X)	0.00	0.88	0.88	1.10	0.21					0.35	0.00	0.03
Avail Cap(c_a), veh/h	0	429	446	181	1421					1888	0	840
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.95	0.95	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	30.1	30.1	38.7	24.5	0.0				11.2	0.0	9.3
Incr Delay (d2), s/veh	0.0	17.4	16.9	94.4	0.1	0.0				0.5	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.0	8.3	8.3	2.3	0.0				3.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	47.5	47.1	133.1	24.5	0.0				11.7	0.0	9.4
LnGrp LOS	A	D	D	F	C					B	A	A
Approach Vol, veh/h		723			480	A					685	
Approach Delay, s/veh		47.3			69.5						11.6	
Approach LOS		D			E						B	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	12.0	22.8		45.2		34.8						
Change Period (Y+Rc), s	4.0	5.0		3.5		* 5						
Max Green Setting (Gmax), s	8.0	19.0		29.9		* 32						
Max Q Clear Time (g_c+I1), s	10.0	17.2		10.5		7.6						
Green Ext Time (p_c), s	0.0	0.6		2.4		1.3						

Intersection Summary			
HCM 6th Ctrl Delay		40.0	
HCM 6th LOS		D	

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

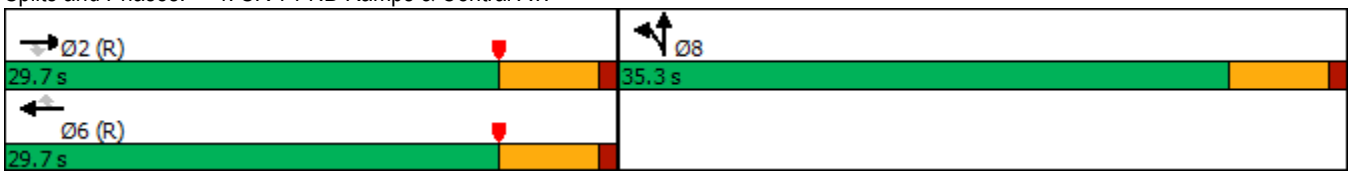
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	1134	778	803	984	65	0
Future Volume (vph)	1134	778	803	984	65	0
Turn Type	NA	Perm	NA	Perm	Split	NA
Protected Phases	2		6		8	8
Permitted Phases		2		6		
Detector Phase	2	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	15.8	15.8	22.8	22.8
Total Split (s)	29.7	29.7	29.7	29.7	35.3	35.3
Total Split (%)	45.7%	45.7%	45.7%	45.7%	54.3%	54.3%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 63.9 (98%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 4: SR-71 NB Ramps & Central Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰	✣				
Traffic Volume (veh/h)	0	1134	778	0	803	984	65	0	390	0	0	0
Future Volume (veh/h)	0	1134	778	0	803	984	65	0	390	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	0	1289	0	0	912	0	74	0	236			
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	0	3271		0	3271		346	0	308			
Arrive On Green	0.00	0.63	0.00	0.00	0.63	0.00	0.19	0.00	0.19			
Sat Flow, veh/h	0	5358	1610	0	5358	1610	1810	0	1610			
Grp Volume(v), veh/h	0	1289	0	0	912	0	74	0	236			
Grp Sat Flow(s),veh/h/ln	0	1729	1610	0	1729	1610	1810	0	1610			
Q Serve(g_s), s	0.0	7.9	0.0	0.0	5.1	0.0	2.2	0.0	9.0			
Cycle Q Clear(g_c), s	0.0	7.9	0.0	0.0	5.1	0.0	2.2	0.0	9.0			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3271		0	3271		346	0	308			
V/C Ratio(X)	0.00	0.39		0.00	0.28		0.21	0.00	0.77			
Avail Cap(c_a), veh/h	0	3271		0	3271		821	0	731			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.62	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	5.9	0.0	0.0	5.4	0.0	22.2	0.0	24.9			
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.2	0.0	0.3	0.0	4.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	1.9	0.0	0.0	1.2	0.0	0.9	0.0	3.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	6.1	0.0	0.0	5.6	0.0	22.5	0.0	28.9			
LnGrp LOS	A	A		A	A		C	A	C			
Approach Vol, veh/h		1289	A		912	A		310				
Approach Delay, s/veh		6.1			5.6			27.4				
Approach LOS		A			A			C				

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		46.8				46.8		18.2				
Change Period (Y+Rc), s		5.8				5.8		5.8				
Max Green Setting (Gmax), s		23.9				23.9		29.5				
Max Q Clear Time (g_c+I1), s		9.9				7.1		11.0				
Green Ext Time (p_c), s		7.0				5.4		1.4				

Intersection Summary	
HCM 6th Ctrl Delay	8.6
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

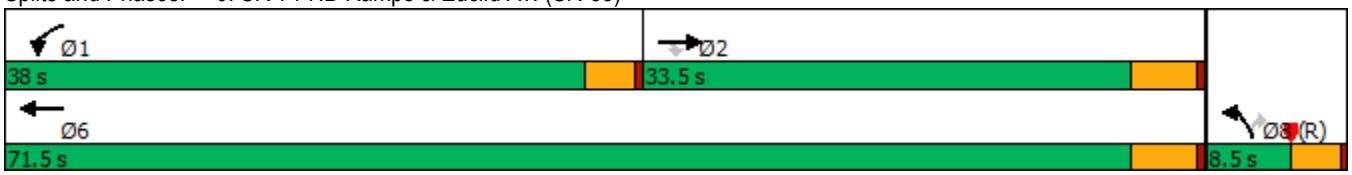
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	658	289	740	925	43	652
Future Volume (vph)	658	289	740	925	43	652
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	32.5	32.5	8.5	9.5	8.5	8.5
Total Split (s)	33.5	33.5	38.0	71.5	8.5	8.5
Total Split (%)	41.9%	41.9%	47.5%	89.4%	10.6%	10.6%
Yellow Time (s)	4.0	4.0	3.0	4.0	3.0	3.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	3.5	4.5	3.5	3.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 9.5 (12%), Referenced to phase 4: and 8:NBL, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 6: SR-71 NB Ramps & Euclid Av. (SR-83)





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	658	289	740	925	43	652
Future Volume (veh/h)	658	289	740	925	43	652
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	700	0	787	984	46	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	904		780	2619	613	
Arrive On Green	0.08	0.00	0.43	0.73	0.17	0.00
Sat Flow, veh/h	3705	1610	1810	3705	3510	1610
Grp Volume(v), veh/h	700	0	787	984	46	0
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805	1755	1610
Q Serve(g_s), s	15.2	0.0	34.5	8.2	0.9	0.0
Cycle Q Clear(g_c), s	15.2	0.0	34.5	8.2	0.9	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	904		780	2619	613	
V/C Ratio(X)	0.77		1.01	0.38	0.08	
Avail Cap(c_a), veh/h	1309		780	3023	613	
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.45	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	34.5	0.0	22.7	4.1	27.6	0.0
Incr Delay (d2), s/veh	0.7	0.0	34.3	0.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	0.0	19.3	1.5	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	35.1	0.0	57.1	4.2	27.9	0.0
LnGrp LOS	D		F	A	C	
Approach Vol, veh/h	700	A		1771	46	A
Approach Delay, s/veh	35.1			27.7	27.9	
Approach LOS	D			C	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	38.0	24.5				62.5	17.5
Change Period (Y+Rc), s	3.5	4.5				4.5	3.5
Max Green Setting (Gmax), s	34.5	29.0				67.0	5.0
Max Q Clear Time (g_c+I1), s	36.5	17.2				10.2	2.9
Green Ext Time (p_c), s	0.0	2.8				7.3	0.0

Intersection Summary		
HCM 6th Ctrl Delay		29.8
HCM 6th LOS		C

Notes

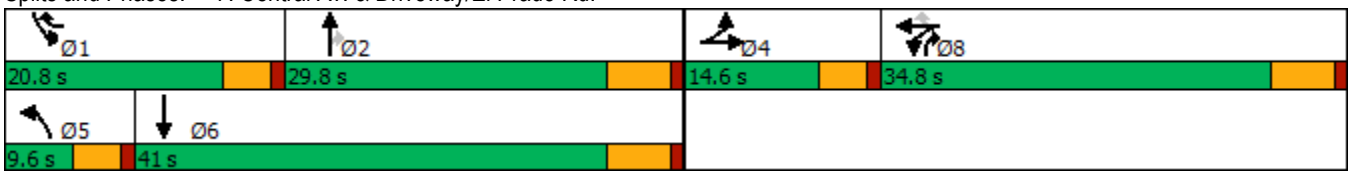
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

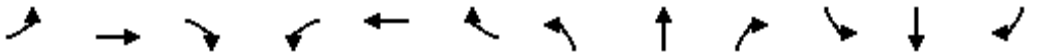
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	2	6	765	4	515	2	811	538	259	695
Future Volume (vph)	2	6	765	4	515	2	811	538	259	695
Turn Type	Split	NA	Split	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	4	4	8	8	1	5	2	8	1	6
Permitted Phases					8			2		
Detector Phase	4	4	8	8	1	5	2	8	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	34.8	34.8	9.6	9.6	27.8	34.8	9.6	24.8
Total Split (s)	14.6	14.6	34.8	34.8	20.8	9.6	29.8	34.8	20.8	41.0
Total Split (%)	14.6%	14.6%	34.8%	34.8%	20.8%	9.6%	29.8%	34.8%	20.8%	41.0%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	5.8	4.6	4.6	5.8	5.8	4.6	5.8
Lead/Lag					Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	None	Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 85.6
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Central Av. & Driveway/El Prado Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	6	1	765	4	515	2	811	538	259	695	11
Future Volume (veh/h)	2	6	1	765	4	515	2	811	538	259	695	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	2	6	0	784	0	309	2	828	375	264	709	8
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	33	36	0	885	0	695	4	960	835	296	2307	26
Arrive On Green	0.02	0.02	0.00	0.27	0.00	0.27	0.00	0.28	0.28	0.18	0.46	0.46
Sat Flow, veh/h	1619	1800	0	3238	0	1525	1619	3420	1490	1619	5008	56
Grp Volume(v), veh/h	2	6	0	784	0	309	2	828	375	264	464	253
Grp Sat Flow(s),veh/h/ln	1619	1800	0	1619	0	1525	1619	1710	1490	1619	1638	1788
Q Serve(g_s), s	0.1	0.3	0.0	19.9	0.0	11.8	0.1	19.6	12.8	13.6	7.6	7.6
Cycle Q Clear(g_c), s	0.1	0.3	0.0	19.9	0.0	11.8	0.1	19.6	12.8	13.6	7.6	7.6
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	33	36	0	885	0	695	4	960	835	296	1509	824
V/C Ratio(X)	0.06	0.16	0.00	0.89	0.00	0.44	0.46	0.86	0.45	0.89	0.31	0.31
Avail Cap(c_a), veh/h	189	211	0	1098	0	796	95	960	835	307	1509	824
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.1	41.2	0.0	29.8	0.0	15.9	42.6	29.2	11.4	34.1	14.5	14.5
Incr Delay (d2), s/veh	0.3	0.8	0.0	6.7	0.0	0.2	25.0	10.1	1.7	24.9	0.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.0	7.8	0.0	3.6	0.1	8.7	7.2	7.0	2.6	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.4	42.0	0.0	36.4	0.0	16.0	67.5	39.3	13.1	59.0	15.0	15.5
LnGrp LOS	D	D	A	D	A	B	E	D	B	E	B	B
Approach Vol, veh/h		8			1093			1205			981	
Approach Delay, s/veh		41.8			30.7			31.2			27.0	
Approach LOS		D			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.2	29.8		6.3	4.8	45.2		29.2				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		5.8				
Max Green Setting (Gmax), s	16.2	24.0		10.0	5.0	35.2		29.0				
Max Q Clear Time (g_c+I1), s	15.6	21.6		2.3	2.1	9.6		21.9				
Green Ext Time (p_c), s	0.0	1.5		0.0	0.0	4.3		1.5				

Intersection Summary		
HCM 6th Ctrl Delay		29.8
HCM 6th LOS		C

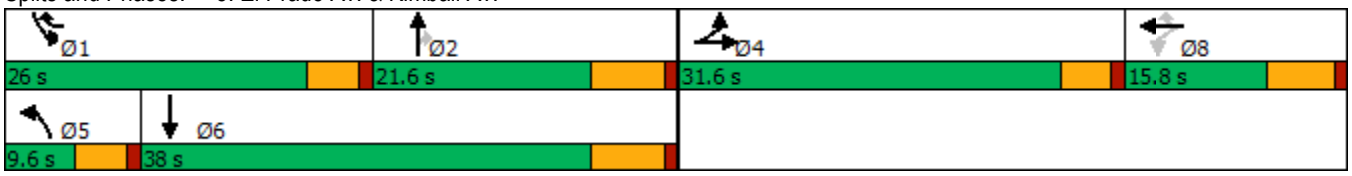
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	22	4	31	16	769	6	276	30	421	242
Future Volume (vph)	22	4	31	16	769	6	276	30	421	242
Turn Type	Split	NA	Perm	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	4	4		8	1	5	2		1	6
Permitted Phases			8		8			2		
Detector Phase	4	4	8	8	1	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	15.8	15.8	9.6	9.6	16.2	16.2	9.6	24.2
Total Split (s)	31.6	31.6	15.8	15.8	26.0	9.6	21.6	21.6	26.0	38.0
Total Split (%)	33.3%	33.3%	16.6%	16.6%	27.4%	10.1%	22.7%	22.7%	27.4%	40.0%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		5.8	4.6	4.6	6.2	6.2	4.6	6.2
Lead/Lag					Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary
Cycle Length: 95
Actuated Cycle Length: 66.3
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: El Prado Av. & Kimball Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	4	3	31	16	769	6	276	30	421	242	38
Future Volume (veh/h)	22	4	3	31	16	769	6	276	30	421	242	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	23	4	2	33	17	412	6	291	32	443	255	37
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	99	69	35	159	82	659	13	384	325	476	1494	214
Arrive On Green	0.06	0.06	0.06	0.14	0.14	0.14	0.01	0.21	0.21	0.29	0.50	0.50
Sat Flow, veh/h	1619	1132	566	1150	592	1525	1619	1800	1525	1619	2994	428
Grp Volume(v), veh/h	23	0	6	50	0	412	6	291	32	443	144	148
Grp Sat Flow(s),veh/h/ln	1619	0	1698	1742	0	1525	1619	1800	1525	1619	1710	1712
Q Serve(g_s), s	1.0	0.0	0.2	1.8	0.0	10.0	0.3	11.0	1.2	19.2	3.3	3.4
Cycle Q Clear(g_c), s	1.0	0.0	0.2	1.8	0.0	10.0	0.3	11.0	1.2	19.2	3.3	3.4
Prop In Lane	1.00		0.33	0.66		1.00	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	99	0	104	241	0	659	13	384	325	476	854	855
V/C Ratio(X)	0.23	0.00	0.06	0.21	0.00	0.62	0.47	0.76	0.10	0.93	0.17	0.17
Avail Cap(c_a), veh/h	605	0	635	241	0	659	112	384	325	480	854	855
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.3	0.0	32.0	27.6	0.0	15.9	35.7	26.7	22.8	24.8	9.9	9.9
Incr Delay (d2), s/veh	1.2	0.0	0.2	0.4	0.0	1.9	9.8	13.1	0.6	24.5	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.1	0.7	0.0	4.8	0.1	5.6	0.4	9.6	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.5	0.0	32.2	28.0	0.0	17.8	45.4	39.8	23.4	49.3	10.3	10.4
LnGrp LOS	C	A	C	C	A	B	D	D	C	D	B	B
Approach Vol, veh/h		29			462			329			735	
Approach Delay, s/veh		33.2			18.9			38.3			33.8	
Approach LOS		C			B			D			C	

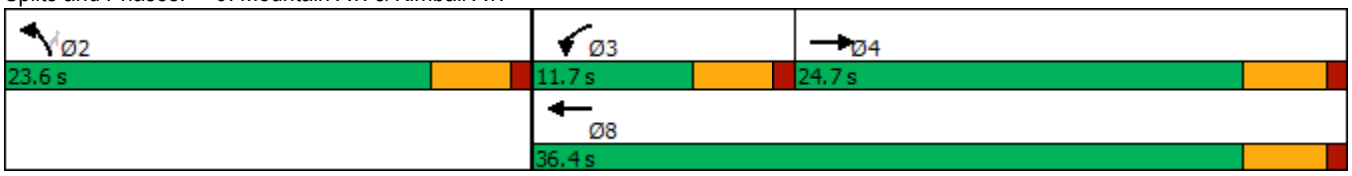
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	25.8	21.6		9.0	5.2	42.3		15.8				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		5.8				
Max Green Setting (Gmax), s	21.4	15.4		27.0	5.0	31.8		10.0				
Max Q Clear Time (g_c+I1), s	21.2	13.0		3.0	2.3	5.4		12.0				
Green Ext Time (p_c), s	0.0	0.4		0.1	0.0	1.4		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		30.3	
HCM 6th LOS		C	

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	320	68	716	86	22
Future Volume (vph)	320	68	716	86	22
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	4	3	8	2	
Permitted Phases					2
Detector Phase	4	3	8	2	2
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	24.7	9.6	14.7	23.6	23.6
Total Split (s)	24.7	11.7	36.4	23.6	23.6
Total Split (%)	41.2%	19.5%	60.7%	39.3%	39.3%
Yellow Time (s)	3.7	3.6	3.7	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.6	4.7	4.6	4.6
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	Max	None	Max	None	None

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 50
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 9: Mountain Av. & Kimball Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	320	118	68	716	86	22
Future Volume (veh/h)	320	118	68	716	86	22
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1800	1800	1700	1800	1700	1800
Adj Flow Rate, veh/h	337	113	72	754	91	21
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1235	406	103	2221	259	244
Arrive On Green	0.49	0.49	0.06	0.65	0.16	0.16
Sat Flow, veh/h	2603	827	1619	3510	1619	1525
Grp Volume(v), veh/h	227	223	72	754	91	21
Grp Sat Flow(s),veh/h/ln	1710	1630	1619	1710	1619	1525
Q Serve(g_s), s	3.8	3.9	2.1	4.8	2.4	0.6
Cycle Q Clear(g_c), s	3.8	3.9	2.1	4.8	2.4	0.6
Prop In Lane		0.51	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	840	801	103	2221	259	244
V/C Ratio(X)	0.27	0.28	0.70	0.34	0.35	0.09
Avail Cap(c_a), veh/h	840	801	236	2221	630	594
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.3	7.3	22.4	3.8	18.2	17.5
Incr Delay (d2), s/veh	0.8	0.9	3.1	0.4	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.1	0.8	0.7	0.8	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.1	8.2	25.5	4.3	19.1	17.6
LnGrp LOS	A	A	C	A	B	B
Approach Vol, veh/h	450			826	112	
Approach Delay, s/veh	8.1			6.1	18.8	
Approach LOS	A			A	B	

Timer - Assigned Phs	2	3	4	8
Phs Duration (G+Y+Rc), s	12.4	7.7	28.7	36.4
Change Period (Y+Rc), s	4.6	4.6	* 4.7	* 4.7
Max Green Setting (Gmax), s	19.0	7.1	* 20	* 32
Max Q Clear Time (g_c+I1), s	4.4	4.1	5.9	6.8
Green Ext Time (p_c), s	0.2	0.0	2.0	5.0

Intersection Summary	
HCM 6th Ctrl Delay	7.8
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	7.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	91	176	22	16	37	42
Future Vol, veh/h	91	176	22	16	37	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	111	215	27	20	45	51

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	178	37	0	0	47	0
Stage 1	37	-	-	-	-	-
Stage 2	141	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	816	1041	-	-	1573	-
Stage 1	991	-	-	-	-	-
Stage 2	891	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	792	1041	-	-	1573	-
Mov Cap-2 Maneuver	772	-	-	-	-	-
Stage 1	991	-	-	-	-	-
Stage 2	865	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	3.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	772	1041	1573	-
HCM Lane V/C Ratio	-	-	0.144	0.206	0.029	-
HCM Control Delay (s)	-	-	10.4	9.4	7.4	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.5	0.8	0.1	-

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	7	31	0	23	110
Future Vol, veh/h	0	7	31	0	23	110
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	8	34	0	25	120

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	204	34	0	0	34	0
Stage 1	34	-	-	-	-	-
Stage 2	170	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	789	1045	-	-	1591	-
Stage 1	994	-	-	-	-	-
Stage 2	865	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	776	1045	-	-	1591	-
Mov Cap-2 Maneuver	759	-	-	-	-	-
Stage 1	994	-	-	-	-	-
Stage 2	851	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	1.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1045	1591	-
HCM Lane V/C Ratio	-	-	0.007	0.016	-
HCM Control Delay (s)	-	-	8.5	7.3	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	3.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	15	16	27	52	58
Future Vol, veh/h	8	15	16	27	52	58
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	16	17	29	57	63

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	209	32	0	0	46	0
Stage 1	32	-	-	-	-	-
Stage 2	177	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	784	1048	-	-	1575	-
Stage 1	996	-	-	-	-	-
Stage 2	859	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	756	1048	-	-	1575	-
Mov Cap-2 Maneuver	741	-	-	-	-	-
Stage 1	996	-	-	-	-	-
Stage 2	828	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	3.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	916	1575	-
HCM Lane V/C Ratio	-	-	0.027	0.036	-
HCM Control Delay (s)	-	-	9	7.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	13	53	259	25	19	112
Future Vol, veh/h	13	53	259	25	19	112
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	14	58	282	27	21	122

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	460	296	0	0	309	0
Stage 1	296	-	-	-	-	-
Stage 2	164	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	563	748	-	-	1263	-
Stage 1	759	-	-	-	-	-
Stage 2	870	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	553	748	-	-	1263	-
Mov Cap-2 Maneuver	553	-	-	-	-	-
Stage 1	759	-	-	-	-	-
Stage 2	854	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	1.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	699	1263	-
HCM Lane V/C Ratio	-	-	0.103	0.016	-
HCM Control Delay (s)	-	-	10.7	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Intersection	
Intersection Delay, s/veh	10.1
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	341	235	0
Future Vol, veh/h	0	0	0	341	235	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	375	258	0
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	0	9.8	10.5
HCM LOS	-	A	B

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	100%
Vol Thru, %	100%	0%	0%
Vol Right, %	0%	100%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	0	341	235
LT Vol	0	0	235
Through Vol	0	0	0
RT Vol	0	341	0
Lane Flow Rate	0	375	258
Geometry Grp	1	1	1
Degree of Util (X)	0	0.413	0.349
Departure Headway (Hd)	4.954	3.967	4.868
Convergence, Y/N	Yes	Yes	Yes
Cap	0	911	736
Service Time	2.994	1.982	2.913
HCM Lane V/C Ratio	0	0.412	0.351
HCM Control Delay	8	9.8	10.5
HCM Lane LOS	N	A	B
HCM 95th-tile Q	0	2	1.6

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	53	0	23	267	0	7
Future Vol, veh/h	53	0	23	267	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	58	0	25	290	0	8

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	58	0	398	58
Stage 1	-	-	-	-	58	-
Stage 2	-	-	-	-	340	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1559	-	611	1014
Stage 1	-	-	-	-	970	-
Stage 2	-	-	-	-	725	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1559	-	601	1014
Mov Cap-2 Maneuver	-	-	-	-	627	-
Stage 1	-	-	-	-	970	-
Stage 2	-	-	-	-	713	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1014	-	-	1559	-
HCM Lane V/C Ratio	0.008	-	-	0.016	-
HCM Control Delay (s)	8.6	-	-	7.3	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	60	0	6	290	0	2
Future Vol, veh/h	60	0	6	290	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	65	0	7	315	0	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	65	0	394	65
Stage 1	-	-	-	-	65	-
Stage 2	-	-	-	-	329	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1550	-	615	1005
Stage 1	-	-	-	-	963	-
Stage 2	-	-	-	-	734	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1550	-	612	1005
Mov Cap-2 Maneuver	-	-	-	-	639	-
Stage 1	-	-	-	-	963	-
Stage 2	-	-	-	-	730	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1005	-	-	1550	-
HCM Lane V/C Ratio	0.002	-	-	0.004	-
HCM Control Delay (s)	8.6	-	-	7.3	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	62	0	6	296	0	2
Future Vol, veh/h	62	0	6	296	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	67	0	7	322	0	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	67	0	403	67
Stage 1	-	-	-	-	67	-
Stage 2	-	-	-	-	336	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1547	-	607	1002
Stage 1	-	-	-	-	961	-
Stage 2	-	-	-	-	728	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1547	-	604	1002
Mov Cap-2 Maneuver	-	-	-	-	633	-
Stage 1	-	-	-	-	961	-
Stage 2	-	-	-	-	724	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	8.6
HCM LOS			A

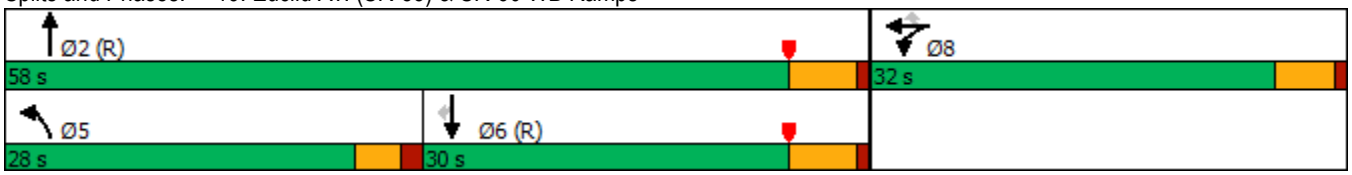
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1002	-	-	1547	-
HCM Lane V/C Ratio	0.002	-	-	0.004	-
HCM Control Delay (s)	8.6	-	-	7.3	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

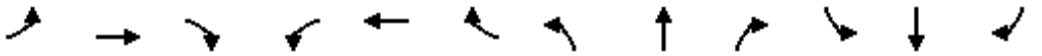
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	606	6	408	335	903	950	470
Future Volume (vph)	606	6	408	335	903	950	470
Turn Type	Split	NA	Perm	Prot	NA	NA	Perm
Protected Phases	8	8		5	2	6	
Permitted Phases			8				6
Detector Phase	8	8	8	5	2	6	6
Switch Phase							
Minimum Initial (s)	6.0	6.0	6.0	5.0	10.0	10.0	10.0
Minimum Split (s)	11.0	11.0	11.0	9.5	22.5	22.5	22.5
Total Split (s)	32.0	32.0	32.0	28.0	58.0	30.0	30.0
Total Split (%)	35.6%	35.6%	35.6%	31.1%	64.4%	33.3%	33.3%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.5	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.5	5.5	5.5	5.5
Lead/Lag				Lead		Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 63 (70%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 19: Euclid Av. (SR-83) & SR-60 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	606	6	408	335	903	0	0	950	470
Future Volume (veh/h)	0	0	0	606	6	408	335	903	0	0	950	470
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				714	0	145	356	961	0	0	1011	272
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				818	0	364	384	2373	0	0	1427	636
Arrive On Green				0.23	0.00	0.23	0.42	1.00	0.00	0.00	0.40	0.40
Sat Flow, veh/h				3619	0	1610	1810	3705	0	0	3705	1610
Grp Volume(v), veh/h				714	0	145	356	961	0	0	1011	272
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1810	1805	0	0	1805	1610
Q Serve(g_s), s				17.1	0.0	6.9	16.8	0.0	0.0	0.0	21.2	11.1
Cycle Q Clear(g_c), s				17.1	0.0	6.9	16.8	0.0	0.0	0.0	21.2	11.1
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				818	0	364	384	2373	0	0	1427	636
V/C Ratio(X)				0.87	0.00	0.40	0.93	0.41	0.00	0.00	0.71	0.43
Avail Cap(c_a), veh/h				1086	0	483	472	2373	0	0	1427	636
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.57	0.57	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				33.6	0.0	29.6	25.3	0.0	0.0	0.0	22.9	19.8
Incr Delay (d2), s/veh				5.1	0.0	0.3	13.4	0.3	0.0	0.0	3.0	2.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.6	0.0	2.5	6.4	0.1	0.0	0.0	8.9	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				38.7	0.0	29.9	38.6	0.3	0.0	0.0	25.9	21.9
LnGrp LOS				D	A	C	D	A	A	A	C	C
Approach Vol, veh/h					859			1317			1283	
Approach Delay, s/veh					37.2			10.7			25.0	
Approach LOS					D			B			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	64.7		23.6	41.1		25.3						
Change Period (Y+Rc), s	5.5		4.5	5.5		5.0						
Max Green Setting (Gmax), s	52.5		23.5	24.5		27.0						
Max Q Clear Time (g_c+I1), s	2.0		18.8	23.2		19.1						
Green Ext Time (p_c), s	12.0		0.3	1.1		1.2						

Intersection Summary		
HCM 6th Ctrl Delay	22.6	
HCM 6th LOS	C	

Notes

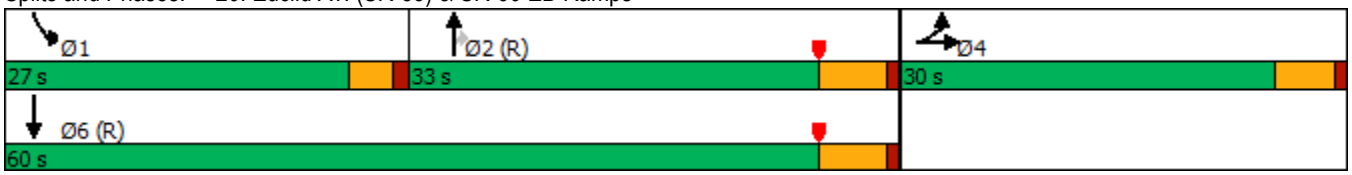
User approved volume balancing among the lanes for turning movement.

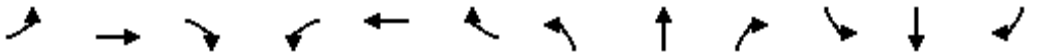
Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	404	2	835	660	363	1193
Future Volume (vph)	404	2	835	660	363	1193
Turn Type	Split	NA	NA	Perm	Prot	NA
Protected Phases	4	4	2		1	6
Permitted Phases				2		
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	6.0	6.0	10.0	10.0	5.0	10.0
Minimum Split (s)	11.0	11.0	22.5	22.5	9.0	22.5
Total Split (s)	30.0	30.0	33.0	33.0	27.0	60.0
Total Split (%)	33.3%	33.3%	36.7%	36.7%	30.0%	66.7%
Yellow Time (s)	4.0	4.0	4.5	4.5	3.0	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.5	5.5	4.0	5.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Min	C-Min	None	C-Min

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 20: Euclid Av. (SR-83) & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	404	2	295	0	0	0	0	835	660	363	1193	0
Future Volume (veh/h)	404	2	295	0	0	0	0	835	660	363	1193	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	342	119	256				0	879	496	382	1256	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	445	132	284				0	1315	571	414	2301	0
Arrive On Green	0.25	0.25	0.25				0.00	0.36	0.36	0.30	0.85	0.00
Sat Flow, veh/h	1810	537	1155				0	3705	1568	1810	3705	0
Grp Volume(v), veh/h	342	0	375				0	879	496	382	1256	0
Grp Sat Flow(s),veh/h/ln	1810	0	1692				0	1805	1568	1810	1805	0
Q Serve(g_s), s	15.8	0.0	19.3				0.0	18.4	26.5	18.4	8.9	0.0
Cycle Q Clear(g_c), s	15.8	0.0	19.3				0.0	18.4	26.5	18.4	8.9	0.0
Prop In Lane	1.00		0.68				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	445	0	416				0	1315	571	414	2301	0
V/C Ratio(X)	0.77	0.00	0.90				0.00	0.67	0.87	0.92	0.55	0.00
Avail Cap(c_a), veh/h	503	0	470				0	1315	571	462	2301	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.79	0.79	0.46	0.46	0.00
Uniform Delay (d), s/veh	31.5	0.0	32.9				0.0	24.0	26.6	30.6	3.2	0.0
Incr Delay (d2), s/veh	5.3	0.0	17.7				0.0	2.1	13.4	12.2	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	0.0	9.4				0.0	7.7	11.2	8.3	1.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.8	0.0	50.5				0.0	26.2	40.0	42.7	3.6	0.0
LnGrp LOS	D	A	D				A	C	D	D	A	A
Approach Vol, veh/h		717						1375			1638	
Approach Delay, s/veh		44.0						31.2			12.7	
Approach LOS		D						C			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	24.6	38.3		27.1		62.9
Change Period (Y+Rc), s	4.0	5.5		5.0		5.5
Max Green Setting (Gmax), s	23.0	27.5		25.0		54.5
Max Q Clear Time (g_c+I1), s	20.4	28.5		21.3		10.9
Green Ext Time (p_c), s	0.2	0.0		0.8		17.3

Intersection Summary	
HCM 6th Ctrl Delay	25.5
HCM 6th LOS	C

Notes

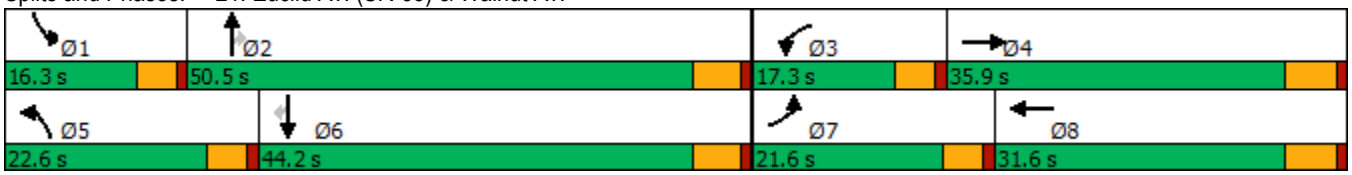
User approved volume balancing among the lanes for turning movement.

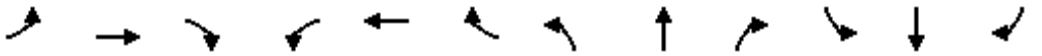
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	113	289	71	307	125	1129	45	150	1152	59
Future Volume (vph)	113	289	71	307	125	1129	45	150	1152	59
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.8	9.6	29.8	9.6	27.4	27.4	9.6	29.4	29.4
Total Split (s)	21.6	35.9	17.3	31.6	22.6	50.5	50.5	16.3	44.2	44.2
Total Split (%)	18.0%	29.9%	14.4%	26.3%	18.8%	42.1%	42.1%	13.6%	36.8%	36.8%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 107.4
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 21: Euclid Av. (SR-83) & Walnut Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	289	110	71	307	204	125	1129	45	150	1152	59
Future Volume (veh/h)	113	289	110	71	307	204	125	1129	45	150	1152	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1600	1800	1800
Adj Flow Rate, veh/h	119	304	80	75	323	175	132	1188	29	158	1213	41
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	145	587	152	94	403	213	159	2204	684	214	2076	644
Arrive On Green	0.09	0.22	0.22	0.06	0.19	0.19	0.10	0.45	0.45	0.07	0.42	0.42
Sat Flow, veh/h	1619	2689	696	1619	2157	1143	1619	4914	1524	2956	4914	1524
Grp Volume(v), veh/h	119	192	192	75	255	243	132	1188	29	158	1213	41
Grp Sat Flow(s),veh/h/ln	1619	1710	1675	1619	1710	1590	1619	1638	1524	1478	1638	1524
Q Serve(g_s), s	7.3	9.9	10.2	4.6	14.3	14.8	8.0	17.7	1.1	5.3	19.0	1.6
Cycle Q Clear(g_c), s	7.3	9.9	10.2	4.6	14.3	14.8	8.0	17.7	1.1	5.3	19.0	1.6
Prop In Lane	1.00		0.42	1.00		0.72	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	145	373	366	94	319	297	159	2204	684	214	2076	644
V/C Ratio(X)	0.82	0.51	0.53	0.80	0.80	0.82	0.83	0.54	0.04	0.74	0.58	0.06
Avail Cap(c_a), veh/h	274	512	501	204	439	408	290	2204	684	344	2076	644
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.0	34.6	34.7	46.8	39.1	39.3	44.5	20.2	15.6	45.7	22.3	17.2
Incr Delay (d2), s/veh	4.3	1.1	1.2	5.8	7.0	9.1	4.2	1.0	0.1	1.9	1.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	4.0	4.1	1.9	6.3	6.3	3.3	6.5	0.4	1.9	7.1	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.3	35.7	35.9	52.6	46.1	48.4	48.7	21.1	15.7	47.6	23.5	17.4
LnGrp LOS	D	D	D	D	D	D	D	C	B	D	C	B
Approach Vol, veh/h		503			573			1349			1412	
Approach Delay, s/veh		39.0			47.9			23.7			26.0	
Approach LOS		D			D			C			C	

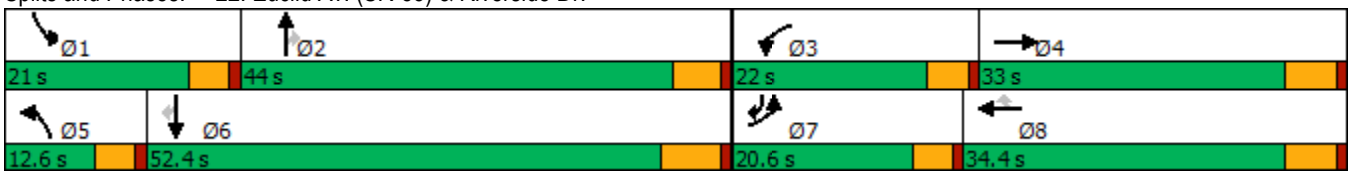
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	50.5	10.4	27.8	14.5	47.9	13.6	24.6
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	11.7	45.1	12.7	30.1	18.0	38.8	17.0	25.8
Max Q Clear Time (g_c+I1), s	7.3	19.7	6.6	12.2	10.0	21.0	9.3	16.8
Green Ext Time (p_c), s	0.1	9.1	0.0	1.8	0.1	7.9	0.1	1.8

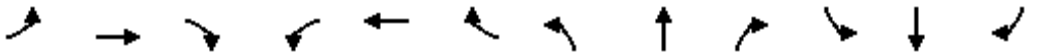
Intersection Summary	
HCM 6th Ctrl Delay	30.2
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	153	311	188	488	115	67	916	155	174	965	152
Future Volume (vph)	153	311	188	488	115	67	916	155	174	965	152
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4	3	8		5	2		1	6	7
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	25.8	9.6	31.8	31.8	9.6	30.4	30.4	9.6	34.5	9.6
Total Split (s)	20.6	33.0	22.0	34.4	34.4	12.6	44.0	44.0	21.0	52.4	20.6
Total Split (%)	17.2%	27.5%	18.3%	28.7%	28.7%	10.5%	36.7%	36.7%	17.5%	43.7%	17.2%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 117.5
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Euclid Av. (SR-83) & Riverside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	311	51	188	488	115	67	916	155	174	965	152
Future Volume (veh/h)	153	311	51	188	488	115	67	916	155	174	965	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	161	327	38	198	514	92	71	964	123	183	1016	101
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	186	352	41	222	837	373	88	1126	502	207	1377	789
Arrive On Green	0.11	0.22	0.22	0.14	0.24	0.24	0.05	0.33	0.33	0.13	0.40	0.40
Sat Flow, veh/h	1619	1583	184	1619	3420	1525	1619	3420	1525	1619	3420	1524
Grp Volume(v), veh/h	161	0	365	198	514	92	71	964	123	183	1016	101
Grp Sat Flow(s),veh/h/ln	1619	0	1767	1619	1710	1525	1619	1710	1525	1619	1710	1524
Q Serve(g_s), s	11.5	0.0	23.8	14.1	15.7	5.7	5.1	30.9	6.9	13.0	29.6	4.0
Cycle Q Clear(g_c), s	11.5	0.0	23.8	14.1	15.7	5.7	5.1	30.9	6.9	13.0	29.6	4.0
Prop In Lane	1.00		0.10	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	186	0	392	222	837	373	88	1126	502	207	1377	789
V/C Ratio(X)	0.87	0.00	0.93	0.89	0.61	0.25	0.80	0.86	0.24	0.88	0.74	0.13
Avail Cap(c_a), veh/h	221	0	410	240	837	373	110	1126	502	226	1377	789
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.0	0.0	44.7	49.7	39.4	35.6	54.8	36.8	28.7	50.3	29.8	14.6
Incr Delay (d2), s/veh	23.0	0.0	27.2	28.3	1.3	0.3	22.9	8.4	1.2	27.6	3.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	0.0	13.0	7.3	6.5	2.1	2.5	13.3	2.6	6.8	12.3	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.0	0.0	71.9	78.0	40.7	35.9	77.8	45.2	29.9	77.9	33.3	15.0
LnGrp LOS	E	A	E	E	D	D	E	D	C	E	C	B
Approach Vol, veh/h		526			804			1158			1300	
Approach Delay, s/veh		72.5			49.3			45.6			38.2	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.6	45.1	20.7	31.8	11.0	53.7	18.0	34.5
Change Period (Y+Rc), s	4.6	* 6.5	4.6	5.8	4.6	6.5	4.6	5.8
Max Green Setting (Gmax), s	16.4	* 39	17.4	27.2	8.0	45.9	16.0	28.6
Max Q Clear Time (g_c+I1), s	15.0	32.9	16.1	25.8	7.1	31.6	13.5	17.7
Green Ext Time (p_c), s	0.0	3.0	0.0	0.3	0.0	6.1	0.0	2.5

Intersection Summary	
HCM 6th Ctrl Delay	47.6
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

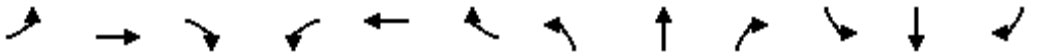
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	104	165	37	72	151	46	979	129	56	1035	92
Future Volume (vph)	104	165	37	72	151	46	979	129	56	1035	92
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	28.8	28.8	28.8	33.8	33.8	9.6	24.2	24.2	9.6	31.5	31.5
Total Split (s)	44.0	44.0	44.0	44.0	44.0	15.0	60.0	60.0	16.0	61.0	61.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	12.5%	50.0%	50.0%	13.3%	50.8%	50.8%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	3.6	4.2	4.2	3.6	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8		5.8	4.6	5.2	5.2	4.6	6.5	6.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 102.5
Natural Cycle: 75
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: Euclid Av. (SR-83) & Chino Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	165	37	72	151	51	46	979	129	56	1035	92
Future Volume (veh/h)	104	165	37	72	151	51	46	979	129	56	1035	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	111	176	23	77	161	42	49	1041	113	60	1101	67
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	225	440	372	114	205	48	60	1855	827	75	1885	823
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.04	0.54	0.54	0.05	0.55	0.55
Sat Flow, veh/h	1131	1800	1524	282	837	198	1619	3420	1525	1619	3420	1494
Grp Volume(v), veh/h	111	176	23	280	0	0	49	1041	113	60	1101	67
Grp Sat Flow(s),veh/h/ln	1131	1800	1524	1317	0	0	1619	1710	1525	1619	1710	1494
Q Serve(g_s), s	0.0	8.3	1.2	13.1	0.0	0.0	3.0	20.2	3.7	3.7	21.5	2.1
Cycle Q Clear(g_c), s	19.4	8.3	1.2	21.3	0.0	0.0	3.0	20.2	3.7	3.7	21.5	2.1
Prop In Lane	1.00		1.00	0.27		0.15	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	225	440	372	367	0	0	60	1855	827	75	1885	823
V/C Ratio(X)	0.49	0.40	0.06	0.76	0.00	0.00	0.81	0.56	0.14	0.80	0.58	0.08
Avail Cap(c_a), veh/h	376	680	576	574	0	0	167	1855	827	183	1885	823
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.2	32.0	29.3	37.7	0.0	0.0	48.3	15.2	11.4	47.7	15.0	10.7
Incr Delay (d2), s/veh	1.7	0.6	0.1	3.3	0.0	0.0	9.2	1.2	0.3	7.3	1.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	3.5	0.4	6.7	0.0	0.0	1.3	6.9	1.2	1.6	7.3	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.8	32.6	29.4	41.0	0.0	0.0	57.5	16.5	11.8	55.0	16.3	10.9
LnGrp LOS	D	C	C	D	A	A	E	B	B	E	B	B
Approach Vol, veh/h		310			280			1203			1228	
Approach Delay, s/veh		34.2			41.0			17.7			17.9	
Approach LOS		C			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.3	61.3		30.5	8.4	62.2		30.5				
Change Period (Y+Rc), s	4.6	* 6.5		5.8	4.6	6.5		5.8				
Max Green Setting (Gmax), s	11.4	* 55		38.2	10.4	54.5		38.2				
Max Q Clear Time (g_c+I1), s	5.7	22.2		21.4	5.0	23.5		23.3				
Green Ext Time (p_c), s	0.0	7.9		1.2	0.0	8.2		1.3				

Intersection Summary		
HCM 6th Ctrl Delay		21.6
HCM 6th LOS		C

Notes

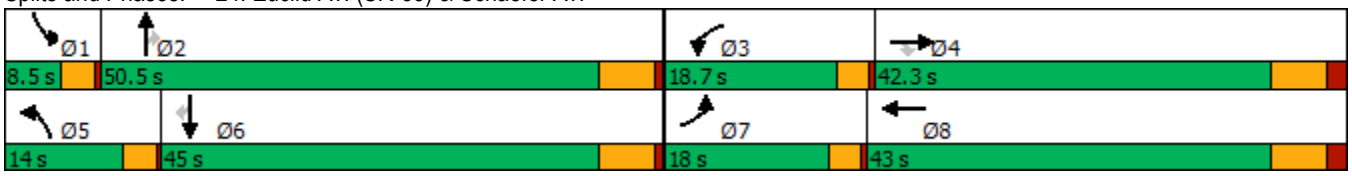
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

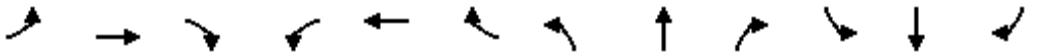
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	153	73	58	140	177	102	943	35	29	943	122
Future Volume (vph)	153	73	58	140	177	102	943	35	29	943	122
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.5	42.0	42.0	13.5	43.0	8.5	33.0	33.0	8.5	28.0	28.0
Total Split (s)	18.0	42.3	42.3	18.7	43.0	14.0	50.5	50.5	8.5	45.0	45.0
Total Split (%)	15.0%	35.3%	35.3%	15.6%	35.8%	11.7%	42.1%	42.1%	7.1%	37.5%	37.5%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	7.0	7.0	3.5	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 96.4
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Euclid Av. (SR-83) & Schaefer Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	73	58	140	177	11	102	943	35	29	943	122
Future Volume (veh/h)	153	73	58	140	177	11	102	943	35	29	943	122
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	165	78	43	151	190	10	110	1014	28	31	1014	97
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	199	270	229	206	261	14	137	1454	648	51	1274	567
Arrive On Green	0.12	0.15	0.15	0.13	0.15	0.15	0.08	0.43	0.43	0.03	0.37	0.37
Sat Flow, veh/h	1619	1800	1525	1619	1694	89	1619	3420	1525	1619	3420	1521
Grp Volume(v), veh/h	165	78	43	151	0	200	110	1014	28	31	1014	97
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1619	0	1783	1619	1710	1525	1619	1710	1521
Q Serve(g_s), s	7.5	2.9	1.9	6.8	0.0	8.0	5.0	18.2	0.8	1.4	19.9	3.2
Cycle Q Clear(g_c), s	7.5	2.9	1.9	6.8	0.0	8.0	5.0	18.2	0.8	1.4	19.9	3.2
Prop In Lane	1.00		1.00	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	199	270	229	206	0	275	137	1454	648	51	1274	567
V/C Ratio(X)	0.83	0.29	0.19	0.73	0.00	0.73	0.81	0.70	0.04	0.60	0.80	0.17
Avail Cap(c_a), veh/h	312	844	715	327	0	853	226	2022	902	108	1772	788
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.2	28.4	28.0	31.6	0.0	30.3	33.8	17.7	12.7	36.0	21.1	15.8
Incr Delay (d2), s/veh	5.4	0.4	0.3	1.9	0.0	2.7	4.2	0.6	0.0	4.2	1.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	1.2	0.6	2.5	0.0	3.4	1.9	5.9	0.2	0.6	6.9	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.6	28.8	28.3	33.5	0.0	33.0	38.0	18.3	12.7	40.2	22.8	16.0
LnGrp LOS	D	C	C	C	A	C	D	B	B	D	C	B
Approach Vol, veh/h		286			351			1152			1142	
Approach Delay, s/veh		33.8			33.2			20.0			22.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.9	38.0	13.1	18.3	9.8	34.0	12.8	18.6
Change Period (Y+Rc), s	3.5	6.0	3.5	7.0	3.5	6.0	3.5	7.0
Max Green Setting (Gmax), s	5.0	44.5	15.2	35.3	10.5	39.0	14.5	36.0
Max Q Clear Time (g_c+I1), s	3.4	20.2	8.8	4.9	7.0	21.9	9.5	10.0
Green Ext Time (p_c), s	0.0	6.7	0.1	0.4	0.0	6.1	0.1	0.8

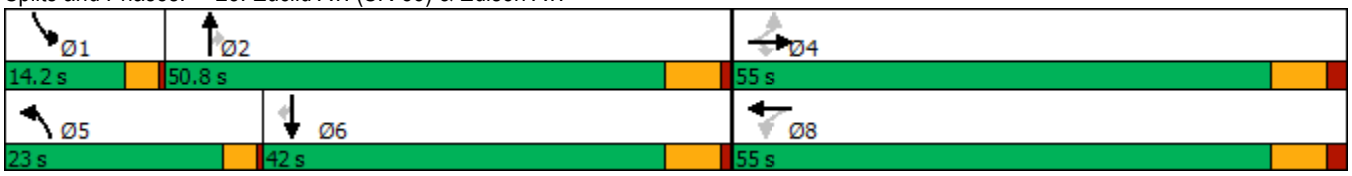
Intersection Summary	
HCM 6th Ctrl Delay	24.0
HCM 6th LOS	C

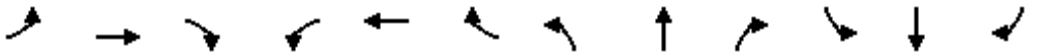
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	156	237	98	35	416	208	878	38	63	828	167
Future Volume (vph)	156	237	98	35	416	208	878	38	63	828	167
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	46.0	46.0	46.0	49.0	49.0	8.5	29.0	29.0	8.5	40.0	40.0
Total Split (s)	55.0	55.0	55.0	55.0	55.0	23.0	50.8	50.8	14.2	42.0	42.0
Total Split (%)	45.8%	45.8%	45.8%	45.8%	45.8%	19.2%	42.3%	42.3%	11.8%	35.0%	35.0%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 108.6
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 25: Euclid Av. (SR-83) & Edison Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	156	237	98	35	416	63	208	878	38	63	828	167
Future Volume (veh/h)	156	237	98	35	416	63	208	878	38	63	828	167
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	162	247	47	36	433	61	217	915	32	66	862	123
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	232	758	642	405	650	92	242	1312	585	82	974	424
Arrive On Green	0.42	0.42	0.42	0.42	0.42	0.42	0.15	0.38	0.38	0.05	0.28	0.28
Sat Flow, veh/h	866	1800	1524	1041	1543	217	1619	3420	1525	1619	3420	1488
Grp Volume(v), veh/h	162	247	47	36	0	494	217	915	32	66	862	123
Grp Sat Flow(s),veh/h/ln	866	1800	1524	1041	0	1761	1619	1710	1525	1619	1710	1488
Q Serve(g_s), s	21.1	10.5	2.1	2.7	0.0	25.8	15.0	25.7	1.5	4.6	27.5	7.3
Cycle Q Clear(g_c), s	46.9	10.5	2.1	13.2	0.0	25.8	15.0	25.7	1.5	4.6	27.5	7.3
Prop In Lane	1.00		1.00	1.00		0.12	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	232	758	642	405	0	741	242	1312	585	82	974	424
V/C Ratio(X)	0.70	0.33	0.07	0.09	0.00	0.67	0.90	0.70	0.05	0.80	0.89	0.29
Avail Cap(c_a), veh/h	232	758	642	405	0	741	277	1344	599	152	1080	470
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.4	22.2	19.7	26.6	0.0	26.6	47.6	29.6	22.1	53.5	39.0	31.8
Incr Delay (d2), s/veh	8.8	0.2	0.0	0.1	0.0	2.3	25.1	1.6	0.0	6.6	8.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	4.3	0.7	0.7	0.0	10.6	7.4	10.0	0.5	1.9	11.9	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.3	22.4	19.8	26.7	0.0	28.9	72.7	31.1	22.2	60.1	47.4	32.2
LnGrp LOS	D	C	B	C	A	C	E	C	C	E	D	C
Approach Vol, veh/h		456			530			1164			1051	
Approach Delay, s/veh		33.5			28.7			38.6			46.4	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.3	49.7		55.0	20.6	38.5		55.0				
Change Period (Y+Rc), s	3.5	6.0		7.0	3.5	6.0		7.0				
Max Green Setting (Gmax), s	10.7	44.8		48.0	19.5	36.0		48.0				
Max Q Clear Time (g_c+I1), s	6.6	27.7		48.9	17.0	29.5		27.8				
Green Ext Time (p_c), s	0.0	5.3		0.0	0.1	3.0		2.9				

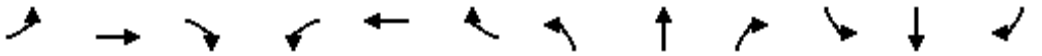
Intersection Summary			
HCM 6th Ctrl Delay		38.8	
HCM 6th LOS		D	

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	67	25	152	32	151	170	1069	12	22	986	40
Future Volume (vph)	67	25	152	32	151	170	1069	12	22	986	40
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	46.8	46.8	46.8	46.8	46.8	8.5	30.7	30.7	8.5	37.7	37.7
Total Split (s)	46.8	46.8	46.8	46.8	46.8	24.0	63.5	63.5	9.7	49.2	49.2
Total Split (%)	39.0%	39.0%	39.0%	39.0%	39.0%	20.0%	52.9%	52.9%	8.1%	41.0%	41.0%
Yellow Time (s)	4.3	4.3	4.3	4.3	4.3	3.0	4.7	4.7	3.0	4.7	4.7
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.8	4.8	3.5	5.7	5.7	3.5	5.7	5.7
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 75.5
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 26: Euclid Av. (SR-83) & Eucalyptus Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	25	152	32	151	37	170	1069	12	22	986	40
Future Volume (veh/h)	67	25	152	32	151	37	170	1069	12	22	986	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	68	26	69	33	154	30	173	1091	11	22	1006	30
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	249	352	298	362	286	56	217	1779	793	42	1409	628
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.13	0.52	0.52	0.03	0.41	0.41
Sat Flow, veh/h	1151	1800	1525	1248	1464	285	1619	3420	1525	1619	3420	1524
Grp Volume(v), veh/h	68	26	69	33	0	184	173	1091	11	22	1006	30
Grp Sat Flow(s),veh/h/ln	1151	1800	1525	1248	0	1749	1619	1710	1525	1619	1710	1524
Q Serve(g_s), s	3.1	0.6	2.1	1.2	0.0	5.1	5.6	12.2	0.2	0.7	13.3	0.6
Cycle Q Clear(g_c), s	8.2	0.6	2.1	1.8	0.0	5.1	5.6	12.2	0.2	0.7	13.3	0.6
Prop In Lane	1.00		1.00	1.00		0.16	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	249	352	298	362	0	342	217	1779	793	42	1409	628
V/C Ratio(X)	0.27	0.07	0.23	0.09	0.00	0.54	0.80	0.61	0.01	0.52	0.71	0.05
Avail Cap(c_a), veh/h	916	1396	1183	1086	0	1356	613	3649	1628	185	2746	1223
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.3	17.8	18.4	18.5	0.0	19.6	22.7	9.2	6.3	26.0	13.3	9.6
Incr Delay (d2), s/veh	0.4	0.1	0.3	0.1	0.0	1.0	4.9	0.3	0.0	7.2	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.2	0.6	0.3	0.0	1.8	2.0	2.6	0.0	0.3	3.6	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.7	17.9	18.7	18.6	0.0	20.6	27.7	9.5	6.3	33.3	14.0	9.6
LnGrp LOS	C	B	B	B	A	C	C	A	A	C	B	A
Approach Vol, veh/h		163			217			1275			1058	
Approach Delay, s/veh		20.6			20.3			11.9			14.2	
Approach LOS		C			C			B			B	

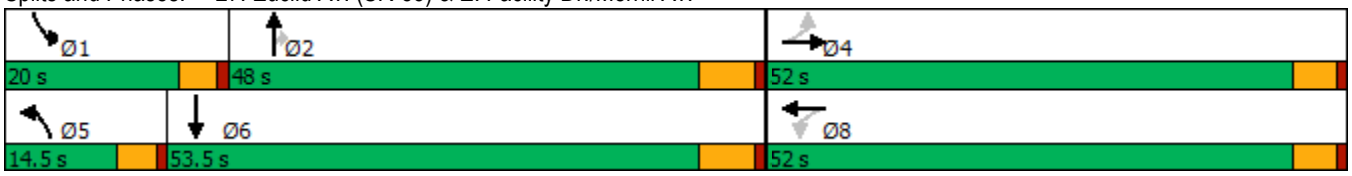
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.9	33.9		15.4	10.8	28.0		15.4				
Change Period (Y+Rc), s	3.5	5.7		4.8	3.5	5.7		4.8				
Max Green Setting (Gmax), s	6.2	57.8		42.0	20.5	43.5		42.0				
Max Q Clear Time (g_c+I1), s	2.7	14.2		10.2	7.6	15.3		7.1				
Green Ext Time (p_c), s	0.0	8.3		0.4	0.2	7.0		0.8				

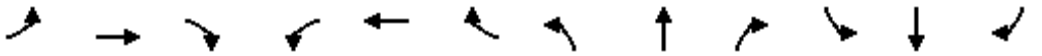
Intersection Summary			
HCM 6th Ctrl Delay		14.0	
HCM 6th LOS		B	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	4	8	227	48	10	1023	141	120	1014
Future Volume (vph)	4	8	227	48	10	1023	141	120	1014
Turn Type	Perm	NA	Perm	NA	Prot	NA	Perm	Prot	NA
Protected Phases		4		8	5	2		1	6
Permitted Phases	4		8				2		
Detector Phase	4	4	8	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	15.0	15.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	10.0	10.0	46.0	46.0	14.5	28.0	28.0	14.5	28.0
Total Split (s)	52.0	52.0	52.0	52.0	14.5	48.0	48.0	20.0	53.5
Total Split (%)	43.3%	43.3%	43.3%	43.3%	12.1%	40.0%	40.0%	16.7%	44.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.5	5.0	5.0	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	4.5	6.0	6.0	4.5	6.0
Lead/Lag					Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 107.6
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 27: Euclid Av. (SR-83) & E. Facility Dr./Merrill Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	8	17	227	48	228	10	1023	141	120	1014	39
Future Volume (veh/h)	4	8	17	227	48	228	10	1023	141	120	1014	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	4	8	17	234	49	208	10	1055	102	124	1045	26
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	95	184	331	309	56	225	40	1261	563	171	1532	38
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.02	0.37	0.37	0.11	0.45	0.45
Sat Flow, veh/h	140	518	933	705	158	634	1619	3420	1525	1619	3408	85
Grp Volume(v), veh/h	29	0	0	491	0	0	10	1055	102	124	524	547
Grp Sat Flow(s),veh/h/ln	1591	0	0	1497	0	0	1619	1710	1525	1619	1710	1782
Q Serve(g_s), s	0.0	0.0	0.0	27.5	0.0	0.0	0.5	25.5	4.1	6.7	22.1	22.1
Cycle Q Clear(g_c), s	1.1	0.0	0.0	28.5	0.0	0.0	0.5	25.5	4.1	6.7	22.1	22.1
Prop In Lane	0.14		0.59	0.48		0.42	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	610	0	0	590	0	0	40	1261	563	171	769	802
V/C Ratio(X)	0.05	0.00	0.00	0.83	0.00	0.00	0.25	0.84	0.18	0.73	0.68	0.68
Avail Cap(c_a), veh/h	858	0	0	833	0	0	179	1584	707	277	896	934
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.2	0.0	0.0	28.0	0.0	0.0	43.4	26.1	19.4	39.3	19.8	19.8
Incr Delay (d2), s/veh	0.0	0.0	0.0	3.5	0.0	0.0	1.2	3.3	0.2	2.2	1.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	9.7	0.0	0.0	0.2	9.7	1.3	2.6	7.8	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.2	0.0	0.0	31.5	0.0	0.0	44.6	29.4	19.5	41.5	21.5	21.5
LnGrp LOS	B	A	A	C	A	A	D	C	B	D	C	C
Approach Vol, veh/h		29			491			1167			1195	
Approach Delay, s/veh		19.2			31.5			28.7			23.6	
Approach LOS		B			C			C			C	

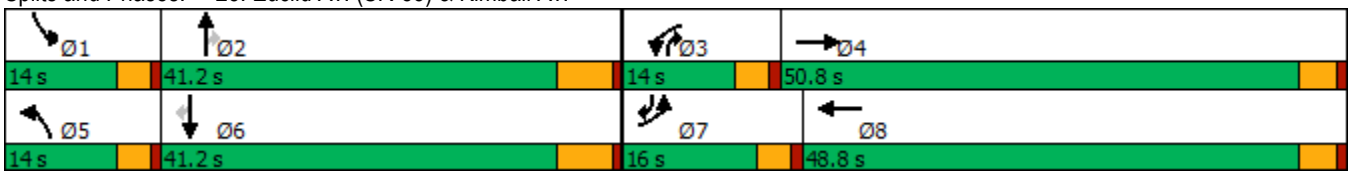
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.1	39.4		37.2	6.7	46.8		37.2				
Change Period (Y+Rc), s	4.5	6.0		5.0	4.5	6.0		5.0				
Max Green Setting (Gmax), s	15.5	42.0		47.0	10.0	47.5		47.0				
Max Q Clear Time (g_c+I1), s	8.7	27.5		3.1	2.5	24.1		30.5				
Green Ext Time (p_c), s	0.1	5.9		0.1	0.0	6.2		1.6				

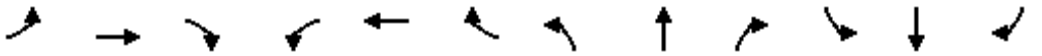
Intersection Summary												
HCM 6th Ctrl Delay			27.0									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	125	223	46	721	84	714	29	190	619	379
Future Volume (vph)	125	223	46	721	84	714	29	190	619	379
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	3	8	5	2	3	1	6	7
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	7
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	14.0	49.5	14.0	45.5	14.0	36.0	14.0	9.0	33.0	14.0
Total Split (s)	16.0	50.8	14.0	48.8	14.0	41.2	14.0	14.0	41.2	16.0
Total Split (%)	13.3%	42.3%	11.7%	40.7%	11.7%	34.3%	11.7%	11.7%	34.3%	13.3%
Yellow Time (s)	3.0	3.5	3.0	3.5	3.0	5.0	3.0	3.0	5.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.5	4.0	4.5	4.0	6.0	4.0	4.0	6.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	None	Min	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 103
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 28: Euclid Av. (SR-83) & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	223	32	46	721	295	84	714	29	190	619	379
Future Volume (veh/h)	125	223	32	46	721	295	84	714	29	190	619	379
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1600	1800	1800	1700	1800	1800	1700	1800	1800	1600	1800	1800
Adj Flow Rate, veh/h	128	228	24	47	736	265	86	729	18	194	632	258
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	312	1159	121	124	842	303	158	900	518	255	863	541
Arrive On Green	0.11	0.37	0.37	0.08	0.34	0.34	0.10	0.26	0.26	0.09	0.25	0.25
Sat Flow, veh/h	2956	3126	326	1619	2463	887	1619	3420	1525	2956	3420	1506
Grp Volume(v), veh/h	128	124	128	47	511	490	86	729	18	194	632	258
Grp Sat Flow(s),veh/h/ln	1478	1710	1741	1619	1710	1640	1619	1710	1525	1478	1710	1506
Q Serve(g_s), s	3.7	4.5	4.6	2.5	25.5	25.5	4.6	18.2	0.7	5.8	15.4	12.1
Cycle Q Clear(g_c), s	3.7	4.5	4.6	2.5	25.5	25.5	4.6	18.2	0.7	5.8	15.4	12.1
Prop In Lane	1.00		0.19	1.00		0.54	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	312	634	646	124	584	561	158	900	518	255	863	541
V/C Ratio(X)	0.41	0.20	0.20	0.38	0.87	0.87	0.55	0.81	0.03	0.76	0.73	0.48
Avail Cap(c_a), veh/h	390	869	885	178	832	798	178	1322	706	325	1322	743
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	19.4	19.5	40.0	28.1	28.1	39.2	31.4	20.1	40.7	31.2	22.7
Incr Delay (d2), s/veh	0.3	0.1	0.1	0.7	5.6	5.9	1.1	2.5	0.0	5.5	1.2	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.7	1.7	1.0	10.5	10.1	1.8	7.1	0.2	2.2	5.9	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.4	19.6	19.6	40.7	33.8	34.0	40.3	33.9	20.1	46.2	32.5	23.3
LnGrp LOS	D	B	B	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		380			1048			833			1084	
Approach Delay, s/veh		25.9			34.2			34.2			32.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	30.0	11.0	38.3	12.9	29.0	13.6	35.6
Change Period (Y+Rc), s	4.0	6.0	4.0	4.5	4.0	6.0	4.0	4.5
Max Green Setting (Gmax), s	10.0	35.2	10.0	46.3	10.0	35.2	12.0	44.3
Max Q Clear Time (g_c+I1), s	7.8	20.2	4.5	6.6	6.6	17.4	5.7	27.5
Green Ext Time (p_c), s	0.1	3.8	0.0	1.3	0.0	4.3	0.1	3.6

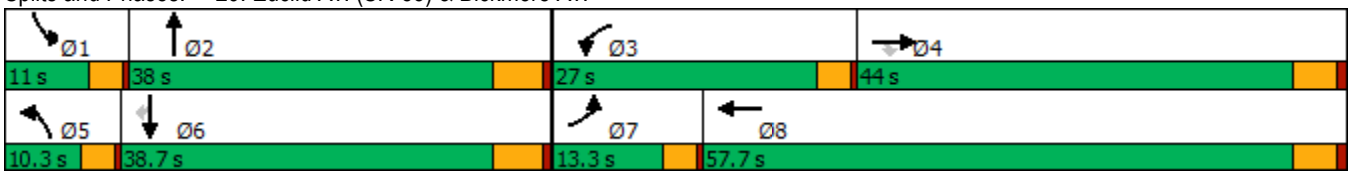
Intersection Summary	
HCM 6th Ctrl Delay	32.8
HCM 6th LOS	C

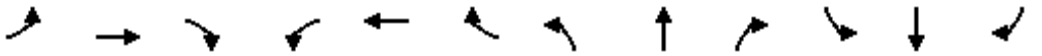
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	57	9	33	166	200	60	546	34	575	177
Future Volume (vph)	57	9	33	166	200	60	546	34	575	177
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.5	44.0	44.0	8.5	44.0	8.5	26.5	8.5	30.5	30.5
Total Split (s)	13.3	44.0	44.0	27.0	57.7	10.3	38.0	11.0	38.7	38.7
Total Split (%)	11.1%	36.7%	36.7%	22.5%	48.1%	8.6%	31.7%	9.2%	32.3%	32.3%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	3.0	4.5	3.0	4.5	4.5
All-Red Time (s)	0.5	1.0	1.0	0.5	1.0	0.5	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.5	3.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 71.8
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 29: Euclid Av. (SR-83) & Bickmore Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	9	33	166	200	131	60	546	20	34	575	177
Future Volume (veh/h)	57	9	33	166	200	131	60	546	20	34	575	177
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	63	10	33	184	222	107	67	607	15	38	639	149
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	96	297	252	231	285	137	100	970	24	67	903	403
Arrive On Green	0.06	0.17	0.17	0.14	0.25	0.25	0.06	0.28	0.28	0.04	0.26	0.26
Sat Flow, veh/h	1619	1800	1525	1619	1147	553	1619	3411	84	1619	3420	1525
Grp Volume(v), veh/h	63	10	33	184	0	329	67	304	318	38	639	149
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1619	0	1700	1619	1710	1785	1619	1710	1525
Q Serve(g_s), s	1.8	0.2	0.9	5.2	0.0	8.6	1.9	7.4	7.4	1.1	8.1	3.8
Cycle Q Clear(g_c), s	1.8	0.2	0.9	5.2	0.0	8.6	1.9	7.4	7.4	1.1	8.1	3.8
Prop In Lane	1.00		1.00	1.00		0.33	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	96	297	252	231	0	422	100	486	507	67	903	403
V/C Ratio(X)	0.66	0.03	0.13	0.80	0.00	0.78	0.67	0.63	0.63	0.57	0.71	0.37
Avail Cap(c_a), veh/h	332	1471	1247	797	0	1878	231	1165	1216	254	2379	1061
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.0	16.7	17.0	19.8	0.0	16.7	21.9	14.9	14.9	22.4	15.9	14.3
Incr Delay (d2), s/veh	2.8	0.0	0.1	2.4	0.0	1.2	2.9	0.5	0.5	2.8	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.1	0.3	1.8	0.0	2.8	0.7	2.1	2.2	0.4	2.3	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.8	16.7	17.1	22.2	0.0	17.9	24.8	15.4	15.3	25.2	16.3	14.5
LnGrp LOS	C	B	B	C	A	B	C	B	B	C	B	B
Approach Vol, veh/h		106			513			689			826	
Approach Delay, s/veh		21.6			19.4			16.3			16.4	
Approach LOS		C			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.5	19.1	10.3	12.9	6.4	18.1	6.3	16.8
Change Period (Y+Rc), s	3.5	5.5	3.5	5.0	3.5	5.5	3.5	5.0
Max Green Setting (Gmax), s	7.5	32.5	23.5	39.0	6.8	33.2	9.8	52.7
Max Q Clear Time (g_c+I1), s	3.1	9.4	7.2	2.9	3.9	10.1	3.8	10.6
Green Ext Time (p_c), s	0.0	1.8	0.2	0.1	0.0	2.5	0.0	1.2

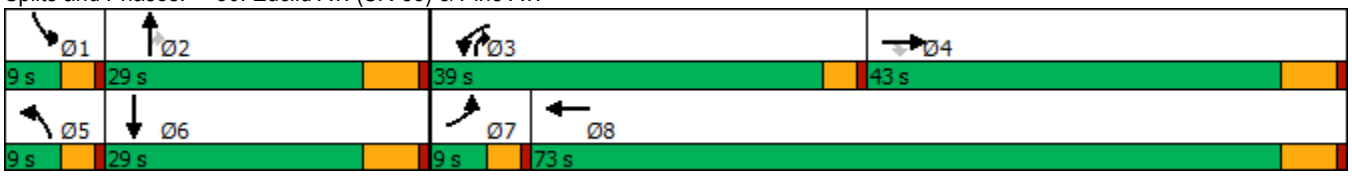
Intersection Summary	
HCM 6th Ctrl Delay	17.3
HCM 6th LOS	B

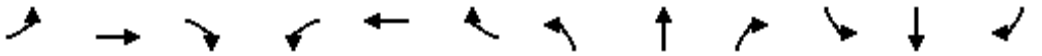
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	8	177	49	981	320	58	631	650	38	623
Future Volume (vph)	8	177	49	981	320	58	631	650	38	623
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4		3	8	5	2	3	1	6
Permitted Phases			4					2		
Detector Phase	7	4	4	3	8	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.0	43.0	43.0	9.0	45.0	9.0	11.0	9.0	9.0	29.0
Total Split (s)	9.0	43.0	43.0	39.0	73.0	9.0	29.0	39.0	9.0	29.0
Total Split (%)	7.5%	35.8%	35.8%	32.5%	60.8%	7.5%	24.2%	32.5%	7.5%	24.2%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0	3.0	3.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	4.0	6.0	4.0	4.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 102.2
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 30: Euclid Av. (SR-83) & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	177	49	981	320	39	58	631	650	38	623	16
Future Volume (veh/h)	8	177	49	981	320	39	58	631	650	38	623	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1600	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	8	182	0	1011	330	38	60	651	414	39	642	12
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	16	244		1084	780	90	74	777	898	57	745	14
Arrive On Green	0.01	0.14	0.00	0.37	0.49	0.49	0.05	0.23	0.23	0.04	0.22	0.22
Sat Flow, veh/h	1619	1800	1525	2956	1585	182	1619	3420	1492	1619	3434	64
Grp Volume(v), veh/h	8	182	0	1011	0	368	60	651	414	39	320	334
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1478	0	1767	1619	1710	1492	1619	1710	1788
Q Serve(g_s), s	0.4	8.3	0.0	28.0	0.0	11.4	3.1	15.5	13.3	2.0	15.3	15.3
Cycle Q Clear(g_c), s	0.4	8.3	0.0	28.0	0.0	11.4	3.1	15.5	13.3	2.0	15.3	15.3
Prop In Lane	1.00		1.00	1.00		0.10	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	16	244		1084	0	870	74	777	898	57	371	388
V/C Ratio(X)	0.49	0.74		0.93	0.00	0.42	0.81	0.84	0.46	0.68	0.86	0.86
Avail Cap(c_a), veh/h	95	782		1215	0	1391	95	924	963	95	462	483
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.9	35.4	0.0	25.9	0.0	13.9	40.3	31.4	9.7	40.6	32.1	32.1
Incr Delay (d2), s/veh	8.1	6.3	0.0	11.5	0.0	0.5	25.9	5.1	0.1	5.2	11.1	10.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	3.8	0.0	10.3	0.0	3.9	1.7	6.3	3.4	0.8	6.8	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.0	41.6	0.0	37.5	0.0	14.3	66.1	36.5	9.9	45.8	43.2	42.8
LnGrp LOS	D	D		D	A	B	E	D	A	D	D	D
Approach Vol, veh/h		190	A		1379			1125			693	
Approach Delay, s/veh		42.0			31.3			28.3			43.2	
Approach LOS		D			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	25.3	35.2	17.6	7.9	24.5	4.9	47.9
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	5.0	23.0	35.0	37.0	5.0	23.0	5.0	67.0
Max Q Clear Time (g_c+I1), s	4.0	17.5	30.0	10.3	5.1	17.3	2.4	13.4
Green Ext Time (p_c), s	0.0	1.8	1.2	1.3	0.0	1.1	0.0	3.2

Intersection Summary	
HCM 6th Ctrl Delay	33.3
HCM 6th LOS	C

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	34	741	72	61	1239	122	63	12	27	32
Future Volume (vph)	34	741	72	61	1239	122	63	12	27	32
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	NA
Protected Phases	7	4		3	8			2		6
Permitted Phases			4			8	2		6	
Detector Phase	7	4	4	3	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	16.2	9.6	23.2	23.2	15.8	15.8	15.2	15.2
Total Split (s)	9.6	88.4	88.4	15.3	94.1	94.1	16.3	16.3	16.3	16.3
Total Split (%)	8.0%	73.7%	73.7%	12.8%	78.4%	78.4%	13.6%	13.6%	13.6%	13.6%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	5.2	4.8	4.8	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	6.2	5.8	5.8	5.2	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 114.7
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 34: Chino Corona Rd. & Pine Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	741	72	61	1239	122	63	12	14	27	32	44
Future Volume (veh/h)	34	741	72	61	1239	122	63	12	14	27	32	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	36	780	0	64	1304	101	66	13	10	28	34	45
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	47	2469		80	1336	1132	114	84	64	162	62	82
Arrive On Green	0.03	0.72	0.00	0.05	0.74	0.74	0.09	0.09	0.09	0.09	0.09	0.09
Sat Flow, veh/h	1619	3420	1525	1619	1800	1525	1266	944	726	1332	703	930
Grp Volume(v), veh/h	36	780	0	64	1304	101	66	0	23	28	0	79
Grp Sat Flow(s),veh/h/ln	1619	1710	1525	1619	1800	1525	1266	0	1669	1332	0	1633
Q Serve(g_s), s	2.6	9.7	0.0	4.6	80.4	2.2	5.0	0.0	1.5	2.4	0.0	5.5
Cycle Q Clear(g_c), s	2.6	9.7	0.0	4.6	80.4	2.2	10.5	0.0	1.5	3.9	0.0	5.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.43	1.00		0.57
Lane Grp Cap(c), veh/h	47	2469		80	1336	1132	114	0	148	162	0	145
V/C Ratio(X)	0.76	0.32		0.80	0.98	0.09	0.58	0.00	0.16	0.17	0.00	0.55
Avail Cap(c_a), veh/h	68	2469		146	1336	1132	114	0	148	169	0	153
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.1	5.9	0.0	55.7	14.3	4.2	57.2	0.0	49.9	51.7	0.0	51.7
Incr Delay (d2), s/veh	13.7	0.3	0.0	6.8	19.6	0.2	7.0	0.0	0.5	0.5	0.0	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.8	0.0	2.0	29.5	0.6	2.2	0.0	0.6	0.8	0.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.8	6.3	0.0	62.5	33.9	4.4	64.2	0.0	50.4	52.2	0.0	55.3
LnGrp LOS	E	A		E	C	A	E	A	D	D	A	E
Approach Vol, veh/h		816	A		1469			89			107	
Approach Delay, s/veh		9.1			33.1			60.6			54.5	
Approach LOS		A			C			E			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		16.3	10.4	91.7		16.3	8.1	94.1				
Change Period (Y+Rc), s		5.8	4.6	6.2		* 5.8	4.6	6.2				
Max Green Setting (Gmax), s		10.5	10.7	82.2		* 11	5.0	87.9				
Max Q Clear Time (g_c+I1), s		12.5	6.6	11.7		7.5	4.6	82.4				
Green Ext Time (p_c), s		0.0	0.0	5.5		0.1	0.0	4.2				

Intersection Summary		
HCM 6th Ctrl Delay	27.1	
HCM 6th LOS	C	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

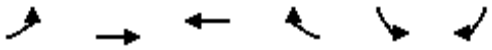
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	22	760	1411	75	11
Future Volume (vph)	22	760	1411	75	11
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	7	4	8	6	
Permitted Phases					6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	14.7	14.7
Total Split (s)	11.4	99.4	88.0	20.6	20.6
Total Split (%)	9.5%	82.8%	73.3%	17.2%	17.2%
Yellow Time (s)	3.6	4.8	4.8	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.7	4.7
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 87.1
Natural Cycle: 70
Control Type: Actuated-Uncoordinated

Splits and Phases: 36: Pine Av. & West Preserve Loop





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	760	1411	229	75	11
Future Volume (veh/h)	22	760	1411	229	75	11
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1700	1800
Adj Flow Rate, veh/h	23	809	1501	234	80	10
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	40	2607	2034	312	188	177
Arrive On Green	0.02	0.76	0.68	0.68	0.12	0.12
Sat Flow, veh/h	1619	3510	3062	456	1619	1525
Grp Volume(v), veh/h	23	809	853	882	80	10
Grp Sat Flow(s),veh/h/ln	1619	1710	1710	1718	1619	1525
Q Serve(g_s), s	1.2	6.4	27.1	28.7	4.0	0.5
Cycle Q Clear(g_c), s	1.2	6.4	27.1	28.7	4.0	0.5
Prop In Lane	1.00			0.27	1.00	1.00
Lane Grp Cap(c), veh/h	40	2607	1170	1176	188	177
V/C Ratio(X)	0.58	0.31	0.73	0.75	0.43	0.06
Avail Cap(c_a), veh/h	128	3712	1630	1638	299	281
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.6	3.2	8.6	8.8	35.4	33.9
Incr Delay (d2), s/veh	12.6	0.1	1.4	1.6	1.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.0	6.9	7.4	1.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	54.2	3.3	10.0	10.5	37.0	34.0
LnGrp LOS	D	A	A	B	D	C
Approach Vol, veh/h		832	1735		90	
Approach Delay, s/veh		4.7	10.2		36.6	
Approach LOS		A	B		D	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			71.5		14.7	6.7	64.8
Change Period (Y+Rc), s			5.8		4.7	4.6	5.8
Max Green Setting (Gmax), s			93.6		15.9	6.8	82.2
Max Q Clear Time (g_c+I1), s			8.4		6.0	3.2	30.7
Green Ext Time (p_c), s			9.0		0.1	0.0	28.3

Intersection Summary	
HCM 6th Ctrl Delay	9.4
HCM 6th LOS	A

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	806	28	17	1588	52	50
Future Volume (vph)	806	28	17	1588	52	50
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	35.8	35.8	9.6	15.8	10.1	10.1
Total Split (s)	89.0	89.0	13.0	102.0	18.0	18.0
Total Split (%)	74.2%	74.2%	10.8%	85.0%	15.0%	15.0%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.1	5.1
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 75
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 39: East Preserve Loop & Pine Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	806	28	17	1588	52	50
Future Volume (veh/h)	806	28	17	1588	52	50
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1800	1800	1700	1800	1600	1800
Adj Flow Rate, veh/h	857	27	18	1689	55	32
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	2148	958	33	2413	472	243
Arrive On Green	0.63	0.63	0.02	0.71	0.16	0.16
Sat Flow, veh/h	3510	1525	1619	3510	2956	1525
Grp Volume(v), veh/h	857	27	18	1689	55	32
Grp Sat Flow(s),veh/h/ln	1710	1525	1619	1710	1478	1525
Q Serve(g_s), s	10.1	0.5	0.9	23.2	1.3	1.5
Cycle Q Clear(g_c), s	10.1	0.5	0.9	23.2	1.3	1.5
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2148	958	33	2413	472	243
V/C Ratio(X)	0.40	0.03	0.54	0.70	0.12	0.13
Avail Cap(c_a), veh/h	3520	1570	168	4070	472	243
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.5	5.7	39.2	6.9	29.1	29.2
Incr Delay (d2), s/veh	0.2	0.0	5.0	0.5	0.5	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.1	0.4	4.9	0.5	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.6	5.7	44.2	7.5	29.6	30.3
LnGrp LOS	A	A	D	A	C	C
Approach Vol, veh/h	884			1707	87	
Approach Delay, s/veh	7.6			7.8	29.8	
Approach LOS	A			A	C	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		18.0	6.3	56.6		62.8
Change Period (Y+Rc), s		5.1	4.6	5.8		5.8
Max Green Setting (Gmax), s		12.9	8.4	83.2		96.2
Max Q Clear Time (g_c+I1), s		3.5	2.9	12.1		25.2
Green Ext Time (p_c), s		0.1	0.0	10.0		31.8

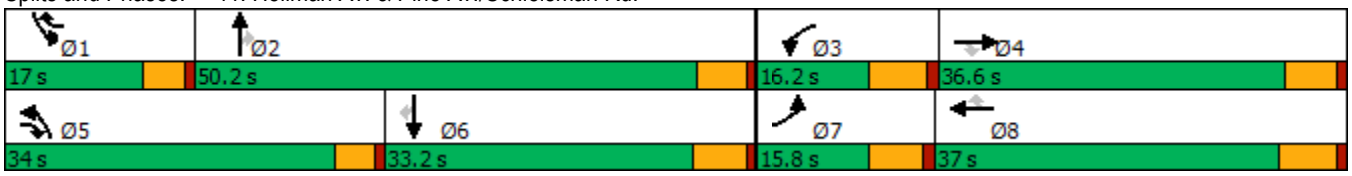
Intersection Summary	
HCM 6th Ctrl Delay	8.5
HCM 6th LOS	A

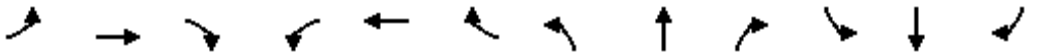
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	441	458	78	986	287	541	441	85	90	145	14
Future Volume (vph)	32	441	458	78	986	287	541	441	85	90	145	14
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	5	3	8	1	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	34.8	9.6	16.2	35.2	9.6	9.6	32.4	32.4	9.6	32.8	32.8
Total Split (s)	15.8	36.6	34.0	16.2	37.0	17.0	34.0	50.2	50.2	17.0	33.2	33.2
Total Split (%)	13.2%	30.5%	28.3%	13.5%	30.8%	14.2%	28.3%	41.8%	41.8%	14.2%	27.7%	27.7%
Yellow Time (s)	4.8	4.8	3.6	5.2	5.2	3.6	3.6	4.4	4.4	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	6.2	6.2	4.6	4.6	5.4	5.4	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 108.5
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 41: Hellman Av. & Pine Av./Schleisman Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	441	458	78	986	287	541	441	85	90	145	14
Future Volume (veh/h)	32	441	458	78	986	287	541	441	85	90	145	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1600	1800	1800	1600	1800	1800	1600	1800	1800	1600	1800	1800
Adj Flow Rate, veh/h	33	450	329	80	1006	180	552	450	44	92	148	11
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	267	1228	696	267	1246	457	611	1394	622	137	846	377
Arrive On Green	0.09	0.25	0.25	0.09	0.25	0.25	0.21	0.41	0.41	0.05	0.25	0.25
Sat Flow, veh/h	2956	4914	1525	2956	4914	1525	2956	3420	1525	2956	3420	1525
Grp Volume(v), veh/h	33	450	329	80	1006	180	552	450	44	92	148	11
Grp Sat Flow(s),veh/h/ln	1478	1638	1525	1478	1638	1525	1478	1710	1525	1478	1710	1525
Q Serve(g_s), s	1.1	8.4	16.6	2.8	21.3	10.4	20.2	9.9	1.9	3.4	3.8	0.6
Cycle Q Clear(g_c), s	1.1	8.4	16.6	2.8	21.3	10.4	20.2	9.9	1.9	3.4	3.8	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	267	1228	696	267	1246	457	611	1394	622	137	846	377
V/C Ratio(X)	0.12	0.37	0.47	0.30	0.81	0.39	0.90	0.32	0.07	0.67	0.17	0.03
Avail Cap(c_a), veh/h	267	1367	739	267	1367	495	785	1394	622	331	846	377
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.3	34.3	20.9	47.1	38.8	30.8	42.9	22.4	20.0	52.0	32.8	31.6
Incr Delay (d2), s/veh	0.3	0.3	0.7	0.9	3.7	0.8	10.2	0.6	0.2	2.1	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	3.2	5.6	1.0	8.5	3.7	7.9	3.9	0.7	1.3	1.5	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.6	34.6	21.6	48.0	42.5	31.6	53.1	23.0	20.2	54.1	33.2	31.7
LnGrp LOS	D	C	C	D	D	C	D	C	C	D	C	C
Approach Vol, veh/h		812			1266			1046			251	
Approach Delay, s/veh		29.8			41.3			38.7			40.8	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	50.9	16.2	33.9	27.5	33.2	15.8	34.3
Change Period (Y+Rc), s	4.6	* 5.8	6.2	* 6.2	4.6	5.8	5.8	6.2
Max Green Setting (Gmax), s	12.4	* 45	10.0	* 31	29.4	27.4	10.0	30.8
Max Q Clear Time (g_c+I1), s	5.4	11.9	4.8	18.6	22.2	5.8	3.1	23.3
Green Ext Time (p_c), s	0.1	4.3	0.1	4.3	0.7	1.0	0.0	4.8

Intersection Summary	
HCM 6th Ctrl Delay	37.7
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	268	729	788	279	180	468
Future Volume (vph)	268	729	788	279	180	468
Turn Type	Prot	pm+ov	NA	pm+ov	Prot	NA
Protected Phases	8	1	2	8	1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	36.3	11.0	46.3	36.3	11.0	11.0
Total Split (s)	36.3	27.0	56.7	36.3	27.0	83.7
Total Split (%)	30.3%	22.5%	47.3%	30.3%	22.5%	69.8%
Yellow Time (s)	4.3	4.0	4.3	4.3	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.0	5.3	5.3	5.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 110.3
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 42: Archibald Av. & Limonite Av.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	268	729	788	279	180	468
Future Volume (veh/h)	268	729	788	279	180	468
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	279	703	821	244	188	488
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	510	651	863	1185	221	1182
Arrive On Green	0.28	0.28	0.45	0.45	0.12	0.62
Sat Flow, veh/h	1810	1610	1900	1610	1810	1900
Grp Volume(v), veh/h	279	703	821	244	188	488
Grp Sat Flow(s),veh/h/ln	1810	1610	1900	1610	1810	1900
Q Serve(g_s), s	14.4	31.0	45.7	5.2	11.2	14.4
Cycle Q Clear(g_c), s	14.4	31.0	45.7	5.2	11.2	14.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	510	651	863	1185	221	1182
V/C Ratio(X)	0.55	1.08	0.95	0.21	0.85	0.41
Avail Cap(c_a), veh/h	510	651	888	1206	362	1359
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.5	32.8	28.9	4.5	47.3	10.6
Incr Delay (d2), s/veh	0.7	59.1	19.3	0.1	9.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	26.4	23.3	3.7	5.4	5.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	34.3	91.8	48.1	4.6	57.2	10.7
LnGrp LOS	C	F	D	A	E	B
Approach Vol, veh/h	982		1065			676
Approach Delay, s/veh	75.5		38.2			23.6
Approach LOS	E		D			C

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	18.4	55.3			73.7	36.3
Change Period (Y+Rc), s	5.0	5.3			* 5.3	5.3
Max Green Setting (Gmax), s	22.0	51.4			* 79	31.0
Max Q Clear Time (g_c+I1), s	13.2	47.7			16.4	33.0
Green Ext Time (p_c), s	0.3	2.3			1.6	0.0

Intersection Summary	
HCM 6th Ctrl Delay	48.0
HCM 6th LOS	D

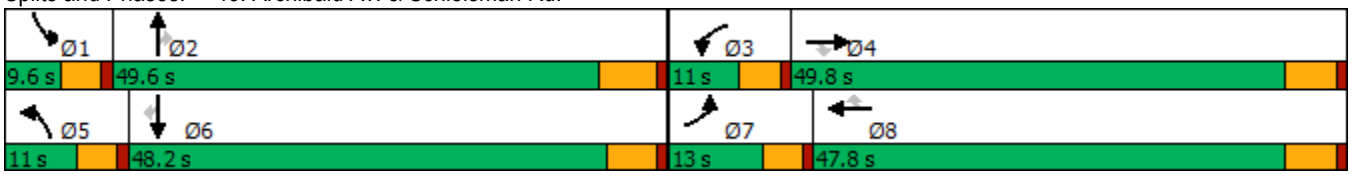
Notes

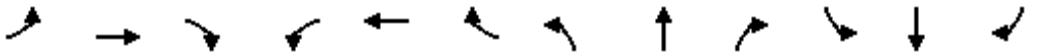
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	383	375	113	248	701	137	241	776	215	103	440	420
Future Volume (vph)	383	375	113	248	701	137	241	776	215	103	440	420
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	47.8	47.8	9.6	47.8	47.8	9.6	48.2	48.2	9.6	47.4	47.4
Total Split (s)	13.0	49.8	49.8	11.0	47.8	47.8	11.0	49.6	49.6	9.6	48.2	48.2
Total Split (%)	10.8%	41.5%	41.5%	9.2%	39.8%	39.8%	9.2%	41.3%	41.3%	8.0%	40.2%	40.2%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	5.2	5.2	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	6.2	6.2	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 106.8
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 43: Archibald Av. & Schleisman Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	383	375	113	248	701	137	241	776	215	103	440	420
Future Volume (veh/h)	383	375	113	248	701	137	241	776	215	103	440	420
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	426	417	62	276	779	75	268	862	166	114	489	345
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	279	2156	659	212	2058	631	212	1434	445	166	1365	418
Arrive On Green	0.08	0.42	0.42	0.06	0.40	0.40	0.06	0.28	0.28	0.05	0.26	0.26
Sat Flow, veh/h	3510	5187	1585	3510	5187	1590	3510	5187	1610	3510	5187	1588
Grp Volume(v), veh/h	426	417	62	276	779	75	268	862	166	114	489	345
Grp Sat Flow(s),veh/h/ln	1755	1729	1585	1755	1729	1590	1755	1729	1610	1755	1729	1588
Q Serve(g_s), s	8.4	5.4	2.5	6.4	11.3	3.2	6.4	15.3	8.8	3.4	8.1	21.7
Cycle Q Clear(g_c), s	8.4	5.4	2.5	6.4	11.3	3.2	6.4	15.3	8.8	3.4	8.1	21.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	279	2156	659	212	2058	631	212	1434	445	166	1365	418
V/C Ratio(X)	1.53	0.19	0.09	1.30	0.38	0.12	1.26	0.60	0.37	0.69	0.36	0.83
Avail Cap(c_a), veh/h	279	2156	659	212	2058	631	212	2127	660	166	2097	642
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.7	19.7	18.8	49.7	22.7	20.2	49.7	33.2	30.9	49.7	31.7	36.7
Incr Delay (d2), s/veh	255.6	0.2	0.3	165.2	0.5	0.4	150.3	0.4	0.5	9.5	0.2	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.4	2.1	0.9	7.6	4.4	1.2	7.1	6.1	3.3	1.6	3.2	8.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	304.3	19.9	19.1	214.9	23.2	20.6	200.0	33.6	31.4	59.2	31.9	42.0
LnGrp LOS	F	B	B	F	C	C	F	C	C	E	C	D
Approach Vol, veh/h		905			1130			1296			948	
Approach Delay, s/veh		153.7			69.9			67.8			38.8	
Approach LOS		F			E			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	35.5	11.0	49.8	11.0	34.1	13.0	47.8
Change Period (Y+Rc), s	4.6	6.2	4.6	5.8	4.6	* 6.2	4.6	5.8
Max Green Setting (Gmax), s	5.0	43.4	6.4	44.0	6.4	* 43	8.4	42.0
Max Q Clear Time (g_c+I1), s	5.4	17.3	8.4	7.4	8.4	23.7	10.4	13.3
Green Ext Time (p_c), s	0.0	6.3	0.0	2.9	0.0	4.0	0.0	5.6

Intersection Summary	
HCM 6th Ctrl Delay	80.1
HCM 6th LOS	F

Notes

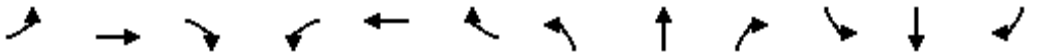
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	WBT	WBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	961	67	785	270	863	0
Future Volume (vph)	961	67	785	270	863	0
Turn Type	NA	Perm	NA	Perm	Perm	NA
Protected Phases	2		6			4
Permitted Phases		2		6	4	
Detector Phase	2	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	22.8	22.8	15.8	15.8
Total Split (s)	23.0	23.0	23.0	23.0	42.0	42.0
Total Split (%)	35.4%	35.4%	35.4%	35.4%	64.6%	64.6%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max	Max	None	None

Intersection Summary
Cycle Length: 65
Actuated Cycle Length: 65
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Central Av. & SR-71 SB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱↱				↰	✣	
Traffic Volume (veh/h)	0	961	67	0	785	270	0	0	0	863	0	826
Future Volume (veh/h)	0	961	67	0	785	270	0	0	0	863	0	826
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	0	1033	0	0	844	0				811	164	693
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1391		0	1391					997	175	739
Arrive On Green	0.00	0.27	0.00	0.00	0.27	0.00				0.55	0.55	0.55
Sat Flow, veh/h	0	5358	1610	0	5358	2834				1810	317	1341
Grp Volume(v), veh/h	0	1033	0	0	844	0				811	0	857
Grp Sat Flow(s),veh/h/ln	0	1729	1610	0	1729	1417				1810	0	1659
Q Serve(g_s), s	0.0	11.7	0.0	0.0	9.1	0.0				23.4	0.0	30.8
Cycle Q Clear(g_c), s	0.0	11.7	0.0	0.0	9.1	0.0				23.4	0.0	30.8
Prop In Lane	0.00		1.00	0.00		1.00				1.00		0.81
Lane Grp Cap(c), veh/h	0	1391		0	1391					997	0	914
V/C Ratio(X)	0.00	0.74		0.00	0.61					0.81	0.00	0.94
Avail Cap(c_a), veh/h	0	1391		0	1391					1021	0	936
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	21.5	0.0	0.0	20.5	0.0				11.7	0.0	13.4
Incr Delay (d2), s/veh	0.0	3.6	0.0	0.0	2.0	0.0				5.0	0.0	16.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.5	0.0	0.0	3.4	0.0				7.9	0.0	12.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	25.1	0.0	0.0	22.5	0.0				16.7	0.0	29.7
LnGrp LOS	A	C		A	C					B	A	C
Approach Vol, veh/h		1033	A		844	A					1668	
Approach Delay, s/veh		25.1			22.5						23.4	
Approach LOS		C			C						C	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		23.0		41.1		23.0						
Change Period (Y+Rc), s		5.8		5.8		5.8						
Max Green Setting (Gmax), s		17.2		36.2		17.2						
Max Q Clear Time (g_c+I1), s		13.7		32.8		11.1						
Green Ext Time (p_c), s		2.4		2.6		3.3						

Intersection Summary		
HCM 6th Ctrl Delay		23.7
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

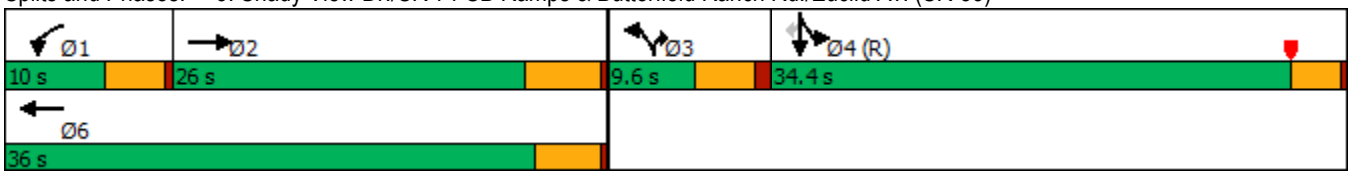
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

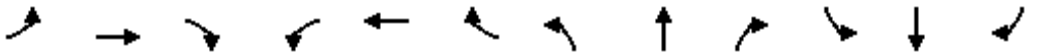
Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	841	121	254	17	147	629	66	67
Future Volume (vph)	841	121	254	17	147	629	66	67
Turn Type	NA	Prot	NA	Prot	Prot	Split	NA	Perm
Protected Phases	2	1	6	3	3	4	4	
Permitted Phases								4
Detector Phase	2	1	6	3	3	4	4	4
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	9.0	26.5	9.5	9.5	32.5	32.5	32.5
Total Split (s)	26.0	10.0	36.0	9.6	9.6	34.4	34.4	34.4
Total Split (%)	32.5%	12.5%	45.0%	12.0%	12.0%	43.0%	43.0%	43.0%
Yellow Time (s)	4.5	3.5	4.0	3.5	3.5	3.0	3.0	3.0
All-Red Time (s)	0.5	0.5	0.5	1.0	1.0	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	4.5	4.5	4.5	3.5	3.5	3.5
Lead/Lag	Lag	Lead		Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	None	None	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 4:SBTL, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 3: Shady View Dr./SR-71 SB Ramps & Butterfield Ranch Rd./Euclid Av. (SR-83)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	841	58	121	254	0	17	0	147	629	66	67
Future Volume (veh/h)	0	841	58	121	254	0	17	0	147	629	66	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	1900	0	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	876	48	126	265	0	18	0	94	704	0	43
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	913	50	136	1399		0	0	0	1832	0	815
Arrive On Green	0.00	0.26	0.26	0.02	0.13	0.00	0.00	0.00	0.00	0.51	0.00	0.51
Sat Flow, veh/h	0	3575	191	1810	3705	0		0		3619	0	1610
Grp Volume(v), veh/h	0	454	470	126	265	0		0.0		704	0	43
Grp Sat Flow(s),veh/h/ln	0	1805	1866	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	19.8	19.8	5.6	5.2	0.0				9.5	0.0	1.1
Cycle Q Clear(g_c), s	0.0	19.8	19.8	5.6	5.2	0.0				9.5	0.0	1.1
Prop In Lane	0.00		0.10	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	474	490	136	1399					1832	0	815
V/C Ratio(X)	0.00	0.96	0.96	0.93	0.19					0.38	0.00	0.05
Avail Cap(c_a), veh/h	0	474	490	136	1421					1832	0	815
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.84	0.84	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	29.1	29.1	38.8	23.7	0.0				12.1	0.0	10.0
Incr Delay (d2), s/veh	0.0	30.8	30.2	50.2	0.0	0.0				0.6	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	11.8	12.1	4.3	2.1	0.0				3.4	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	59.8	59.2	89.0	23.7	0.0				12.7	0.0	10.1
LnGrp LOS	A	E	E	F	C					B	A	B
Approach Vol, veh/h		924			391	A					747	
Approach Delay, s/veh		59.5			44.7						12.6	
Approach LOS		E			D						B	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	10.0	26.0		44.0		36.0						
Change Period (Y+Rc), s	4.0	5.0		3.5		* 5						
Max Green Setting (Gmax), s	6.0	21.0		30.9		* 32						
Max Q Clear Time (g_c+I1), s	7.6	21.8		11.5		7.2						
Green Ext Time (p_c), s	0.0	0.0		2.6		1.2						

Intersection Summary			
HCM 6th Ctrl Delay		39.7	
HCM 6th LOS		D	

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

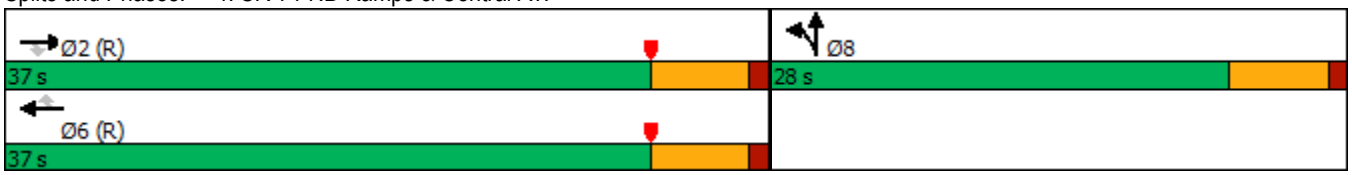
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	1399	425	914	706	141	0
Future Volume (vph)	1399	425	914	706	141	0
Turn Type	NA	Perm	NA	Perm	Split	NA
Protected Phases	2		6		8	8
Permitted Phases		2		6		
Detector Phase	2	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	15.8	15.8	22.8	22.8
Total Split (s)	37.0	37.0	37.0	37.0	28.0	28.0
Total Split (%)	56.9%	56.9%	56.9%	56.9%	43.1%	43.1%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 63.9 (98%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 4: SR-71 NB Ramps & Central Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰	↕				
Traffic Volume (veh/h)	0	1399	425	0	914	706	141	0	343	0	0	0
Future Volume (veh/h)	0	1399	425	0	914	706	141	0	343	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	0	1442	0	0	942	0	145	0	173			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	0	3466		0	3466		277	0	247			
Arrive On Green	0.00	0.67	0.00	0.00	0.67	0.00	0.15	0.00	0.15			
Sat Flow, veh/h	0	5358	1610	0	5358	1610	1810	0	1610			
Grp Volume(v), veh/h	0	1442	0	0	942	0	145	0	173			
Grp Sat Flow(s),veh/h/ln	0	1729	1610	0	1729	1610	1810	0	1610			
Q Serve(g_s), s	0.0	8.3	0.0	0.0	4.8	0.0	4.8	0.0	6.6			
Cycle Q Clear(g_c), s	0.0	8.3	0.0	0.0	4.8	0.0	4.8	0.0	6.6			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3466		0	3466		277	0	247			
V/C Ratio(X)	0.00	0.42		0.00	0.27		0.52	0.00	0.70			
Avail Cap(c_a), veh/h	0	3466		0	3466		618	0	550			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.49	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	5.0	0.0	0.0	4.4	0.0	25.3	0.0	26.1			
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.2	0.0	1.5	0.0	3.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	1.7	0.0	0.0	1.0	0.0	2.0	0.0	2.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	5.1	0.0	0.0	4.6	0.0	26.8	0.0	29.7			
LnGrp LOS	A	A		A	A		C	A	C			
Approach Vol, veh/h		1442	A		942	A		318				
Approach Delay, s/veh		5.1			4.6			28.4				
Approach LOS		A			A			C				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		49.2				49.2		15.8				
Change Period (Y+Rc), s		5.8				5.8		5.8				
Max Green Setting (Gmax), s		31.2				31.2		22.2				
Max Q Clear Time (g_c+I1), s		10.3				6.8		8.6				
Green Ext Time (p_c), s		10.0				6.4		1.1				

Intersection Summary	
HCM 6th Ctrl Delay	7.7
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

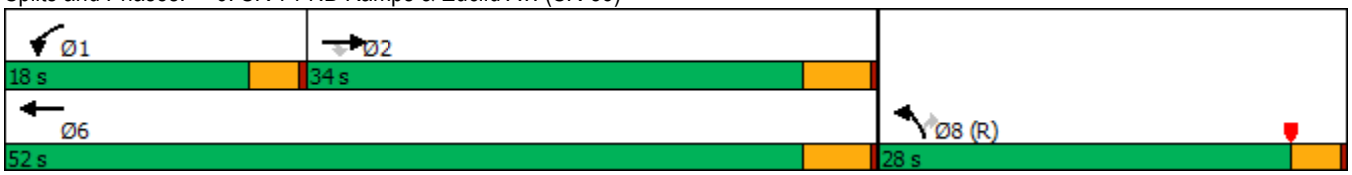
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	806	150	355	968	127	918
Future Volume (vph)	806	150	355	968	127	918
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	32.5	32.5	8.5	9.5	8.5	8.5
Total Split (s)	34.0	34.0	18.0	52.0	28.0	28.0
Total Split (%)	42.5%	42.5%	22.5%	65.0%	35.0%	35.0%
Yellow Time (s)	4.0	4.0	3.0	4.0	3.0	3.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	3.5	4.5	3.5	3.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 9.5 (12%), Referenced to phase 4: and 8:NBL, Start of Yellow
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 6: SR-71 NB Ramps & Euclid Av. (SR-83)



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	806	150	355	968	127	918
Future Volume (veh/h)	806	150	355	968	127	918
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	937	0	413	1126	148	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1093		328	1905	1307	
Arrive On Green	0.40	0.00	0.18	0.53	0.37	0.00
Sat Flow, veh/h	3705	1610	1810	3705	3510	1610
Grp Volume(v), veh/h	937	0	413	1126	148	0
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805	1755	1610
Q Serve(g_s), s	18.9	0.0	14.5	17.1	2.2	0.0
Cycle Q Clear(g_c), s	18.9	0.0	14.5	17.1	2.2	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1093		328	1905	1307	
V/C Ratio(X)	0.86		1.26	0.59	0.11	
Avail Cap(c_a), veh/h	1331		328	2143	1307	
HCM Platoon Ratio	1.33	1.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.46	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.3	0.0	32.8	13.0	16.5	0.0
Incr Delay (d2), s/veh	2.2	0.0	139.0	0.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	0.0	18.4	5.4	0.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.5	0.0	171.8	13.3	16.6	0.0
LnGrp LOS	C		F	B	B	
Approach Vol, veh/h	937	A		1539	148	A
Approach Delay, s/veh	24.5			55.8	16.6	
Approach LOS	C			E	B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	18.0	28.7				46.7	33.3
Change Period (Y+Rc), s	3.5	4.5				4.5	3.5
Max Green Setting (Gmax), s	14.5	29.5				47.5	24.5
Max Q Clear Time (g_c+I1), s	16.5	20.9				19.1	4.2
Green Ext Time (p_c), s	0.0	3.3				8.0	0.2

Intersection Summary		
HCM 6th Ctrl Delay		42.5
HCM 6th LOS		D

Notes

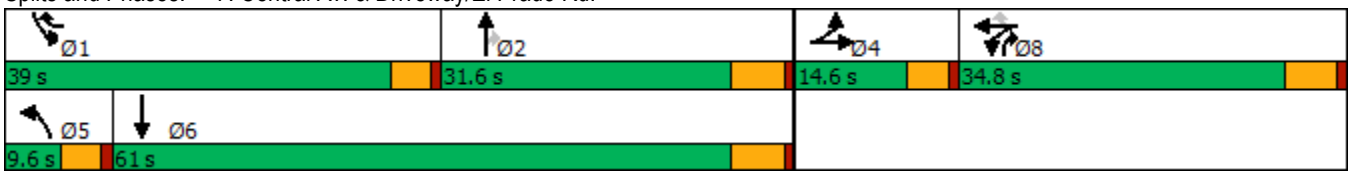
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

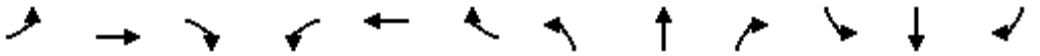
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	17	12	596	3	473	6	752	794	617	847
Future Volume (vph)	17	12	596	3	473	6	752	794	617	847
Turn Type	Split	NA	Split	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	4	4	8	8	1	5	2	8	1	6
Permitted Phases					8			2		
Detector Phase	4	4	8	8	1	5	2	8	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	34.8	34.8	9.6	9.6	27.8	34.8	9.6	24.8
Total Split (s)	14.6	14.6	34.8	34.8	39.0	9.6	31.6	34.8	39.0	61.0
Total Split (%)	12.2%	12.2%	29.0%	29.0%	32.5%	8.0%	26.3%	29.0%	32.5%	50.8%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	5.8	4.6	4.6	5.8	5.8	4.6	5.8
Lead/Lag					Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 114.2
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Central Av. & Driveway/El Prado Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	12	8	596	3	473	6	752	794	617	847	18
Future Volume (veh/h)	17	12	8	596	3	473	6	752	794	617	847	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	18	12	3	623	0	238	6	783	487	643	882	17
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	93	80	20	697	0	799	12	792	679	500	2645	51
Arrive On Green	0.06	0.06	0.06	0.22	0.00	0.22	0.01	0.23	0.23	0.31	0.53	0.53
Sat Flow, veh/h	1619	1390	347	3238	0	1523	1619	3420	1516	1619	4963	96
Grp Volume(v), veh/h	18	0	15	623	0	238	6	783	487	643	582	317
Grp Sat Flow(s),veh/h/ln	1619	0	1737	1619	0	1523	1619	1710	1516	1619	1638	1783
Q Serve(g_s), s	1.2	0.0	0.9	20.8	0.0	9.8	0.4	25.4	25.8	34.4	11.2	11.3
Cycle Q Clear(g_c), s	1.2	0.0	0.9	20.8	0.0	9.8	0.4	25.4	25.8	34.4	11.2	11.3
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	93	0	100	697	0	799	12	792	679	500	1746	950
V/C Ratio(X)	0.19	0.00	0.15	0.89	0.00	0.30	0.49	0.99	0.72	1.29	0.33	0.33
Avail Cap(c_a), veh/h	145	0	156	843	0	868	73	792	679	500	1746	950
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.0	0.0	49.9	42.5	0.0	14.9	55.0	42.6	24.2	38.5	14.8	14.8
Incr Delay (d2), s/veh	0.4	0.0	0.3	9.5	0.0	0.1	10.7	29.2	6.4	143.1	0.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.4	8.8	0.0	3.1	0.2	13.5	14.5	32.8	4.0	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.4	0.0	50.2	51.9	0.0	15.0	65.7	71.9	30.6	181.6	15.3	15.7
LnGrp LOS	D	A	D	D	A	B	E	E	C	F	B	B
Approach Vol, veh/h		33			861			1276			1542	
Approach Delay, s/veh		50.3			41.7			56.1			84.7	
Approach LOS		D			D			E			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	39.0	31.6		11.0	5.4	65.2		29.8				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		5.8				
Max Green Setting (Gmax), s	34.4	25.8		10.0	5.0	55.2		29.0				
Max Q Clear Time (g_c+I1), s	36.4	27.8		3.2	2.4	13.3		22.8				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	6.1		1.1				

Intersection Summary			
HCM 6th Ctrl Delay		64.6	
HCM 6th LOS		E	

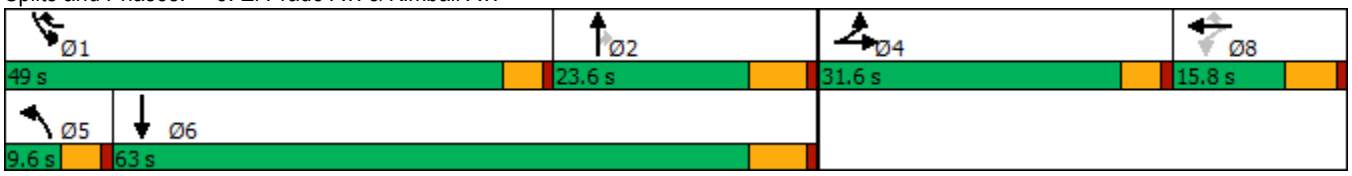
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	33	14	25	5	755	4	261	33	857	319
Future Volume (vph)	33	14	25	5	755	4	261	33	857	319
Turn Type	Split	NA	Perm	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	4	4		8	1	5	2		1	6
Permitted Phases			8		8			2		
Detector Phase	4	4	8	8	1	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	15.8	15.8	9.6	9.6	16.2	16.2	9.6	24.2
Total Split (s)	31.6	31.6	15.8	15.8	49.0	9.6	23.6	23.6	49.0	63.0
Total Split (%)	26.3%	26.3%	13.2%	13.2%	40.8%	8.0%	19.7%	19.7%	40.8%	52.5%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		5.8	4.6	4.6	6.2	6.2	4.6	6.2
Lead/Lag					Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 94.2
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: El Prado Av. & Kimball Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	14	5	25	5	755	4	261	33	857	319	11
Future Volume (veh/h)	33	14	5	25	5	755	4	261	33	857	319	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	35	15	3	27	5	358	4	278	31	912	339	11
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	124	112	22	145	27	823	9	311	263	714	2055	66
Arrive On Green	0.08	0.08	0.08	0.10	0.10	0.10	0.01	0.17	0.17	0.44	0.61	0.61
Sat Flow, veh/h	1619	1456	291	1457	270	1518	1619	1800	1525	1619	3378	109
Grp Volume(v), veh/h	35	0	18	32	0	358	4	278	31	912	171	179
Grp Sat Flow(s),veh/h/ln	1619	0	1748	1727	0	1518	1619	1800	1525	1619	1710	1777
Q Serve(g_s), s	2.1	0.0	1.0	1.7	0.0	10.0	0.2	15.2	1.7	44.4	4.4	4.4
Cycle Q Clear(g_c), s	2.1	0.0	1.0	1.7	0.0	10.0	0.2	15.2	1.7	44.4	4.4	4.4
Prop In Lane	1.00		0.17	0.84		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	124	0	134	171	0	823	9	311	263	714	1040	1081
V/C Ratio(X)	0.28	0.00	0.13	0.19	0.00	0.43	0.47	0.89	0.12	1.28	0.16	0.17
Avail Cap(c_a), veh/h	434	0	468	171	0	823	80	311	263	714	1040	1081
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	0.0	43.4	41.6	0.0	13.9	50.0	40.8	35.2	28.2	8.6	8.6
Incr Delay (d2), s/veh	1.2	0.0	0.4	0.5	0.0	0.4	14.2	30.0	0.9	135.8	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.4	0.7	0.0	4.4	0.1	9.0	0.7	42.1	1.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.1	0.0	43.8	42.2	0.0	14.3	64.2	70.8	36.1	163.9	8.9	8.9
LnGrp LOS	D	A	D	D	A	B	E	E	D	F	A	A
Approach Vol, veh/h		53			390			313			1262	
Approach Delay, s/veh		44.7			16.6			67.2			120.9	
Approach LOS		D			B			E			F	

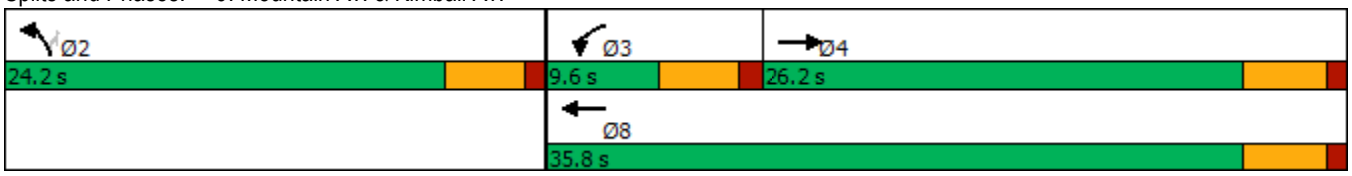
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	49.0	23.6		12.3	5.1	67.5		15.8				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		5.8				
Max Green Setting (Gmax), s	44.4	17.4		27.0	5.0	56.8		10.0				
Max Q Clear Time (g_c+I1), s	46.4	17.2		4.1	2.2	6.4		12.0				
Green Ext Time (p_c), s	0.0	0.0		0.1	0.0	1.8		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		90.4	
HCM 6th LOS		F	

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	907	23	651	146	82
Future Volume (vph)	907	23	651	146	82
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	4	3	8	2	
Permitted Phases					2
Detector Phase	4	3	8	2	2
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	24.7	9.6	14.7	23.6	23.6
Total Split (s)	26.2	9.6	35.8	24.2	24.2
Total Split (%)	43.7%	16.0%	59.7%	40.3%	40.3%
Yellow Time (s)	3.7	3.6	3.7	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.6	4.7	4.6	4.6
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	Max	None	Max	None	None

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 52.7
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 9: Mountain Av. & Kimball Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	907	56	23	651	146	82
Future Volume (veh/h)	907	56	23	651	146	82
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1800	1800	1700	1800	1700	1800
Adj Flow Rate, veh/h	975	58	25	700	157	69
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1643	98	48	2129	310	292
Arrive On Green	0.50	0.50	0.03	0.62	0.19	0.19
Sat Flow, veh/h	3370	195	1619	3510	1619	1525
Grp Volume(v), veh/h	508	525	25	700	157	69
Grp Sat Flow(s),veh/h/ln	1710	1765	1619	1710	1619	1525
Q Serve(g_s), s	10.5	10.5	0.8	4.9	4.3	1.9
Cycle Q Clear(g_c), s	10.5	10.5	0.8	4.9	4.3	1.9
Prop In Lane		0.11	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	857	884	48	2129	310	292
V/C Ratio(X)	0.59	0.59	0.53	0.33	0.51	0.24
Avail Cap(c_a), veh/h	857	884	162	2129	635	598
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.9	8.9	23.9	4.5	18.1	17.1
Incr Delay (d2), s/veh	3.0	2.9	3.3	0.4	1.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	3.2	0.3	0.9	1.4	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.9	11.8	27.2	4.9	19.4	17.5
LnGrp LOS	B	B	C	A	B	B
Approach Vol, veh/h	1033			725	226	
Approach Delay, s/veh	11.8			5.7	18.8	
Approach LOS	B			A	B	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		14.2	6.1	29.7		35.8
Change Period (Y+Rc), s		4.6	4.6	* 4.7		* 4.7
Max Green Setting (Gmax), s		19.6	5.0	* 22		* 31
Max Q Clear Time (g_c+I1), s		6.3	2.8	12.5		6.9
Green Ext Time (p_c), s		0.5	0.0	4.0		4.5

Intersection Summary	
HCM 6th Ctrl Delay	10.4
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	4.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	32	57	56	80	46	22
Future Vol, veh/h	32	57	56	80	46	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	38	68	67	95	55	26

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	251	115	0	0	162	0
Stage 1	115	-	-	-	-	-
Stage 2	136	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	742	943	-	-	1429	-
Stage 1	915	-	-	-	-	-
Stage 2	895	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	714	943	-	-	1429	-
Mov Cap-2 Maneuver	729	-	-	-	-	-
Stage 1	915	-	-	-	-	-
Stage 2	861	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	5.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	729	943	1429	-
HCM Lane V/C Ratio	-	-	0.052	0.072	0.038	-
HCM Control Delay (s)	-	-	10.2	9.1	7.6	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0.2	0.1	-

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	30	106	0	12	42
Future Vol, veh/h	0	30	106	0	12	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	33	115	0	13	46

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	187	115	0	0	115	0
Stage 1	115	-	-	-	-	-
Stage 2	72	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	807	943	-	-	1487	-
Stage 1	915	-	-	-	-	-
Stage 2	956	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	800	943	-	-	1487	-
Mov Cap-2 Maneuver	789	-	-	-	-	-
Stage 1	915	-	-	-	-	-
Stage 2	947	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	1.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	943	1487	-
HCM Lane V/C Ratio	-	-	0.035	0.009	-
HCM Control Delay (s)	-	-	9	7.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	5.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	33	60	46	13	23	19
Future Vol, veh/h	33	60	46	13	23	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	36	65	50	14	25	21

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	128	57	0	0	64	0
Stage 1	57	-	-	-	-	-
Stage 2	71	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	871	1015	-	-	1551	-
Stage 1	971	-	-	-	-	-
Stage 2	957	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	857	1015	-	-	1551	-
Mov Cap-2 Maneuver	827	-	-	-	-	-
Stage 1	971	-	-	-	-	-
Stage 2	942	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	939	1551	-
HCM Lane V/C Ratio	-	-	0.108	0.016	-
HCM Control Delay (s)	-	-	9.3	7.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	38	14	115	23	36	475
Future Vol, veh/h	38	14	115	23	36	475
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	44	16	134	27	42	552

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	784	148	0	0	161	0
Stage 1	148	-	-	-	-	-
Stage 2	636	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	365	904	-	-	1430	-
Stage 1	884	-	-	-	-	-
Stage 2	531	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	350	904	-	-	1430	-
Mov Cap-2 Maneuver	350	-	-	-	-	-
Stage 1	884	-	-	-	-	-
Stage 2	509	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15	0	0.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	419	1430	-
HCM Lane V/C Ratio	-	-	0.144	0.029	-
HCM Control Delay (s)	-	-	15	7.6	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-

Intersection	
Intersection Delay, s/veh	14.6
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1	0	113	513	1
Future Vol, veh/h	0	1	0	113	513	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	1	0	123	558	1
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	8.4	8.5	15.9
HCM LOS	A	A	C

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	100%
Vol Thru, %	100%	0%	0%
Vol Right, %	0%	100%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1	113	514
LT Vol	0	0	513
Through Vol	1	0	0
RT Vol	0	113	1
Lane Flow Rate	1	123	559
Geometry Grp	1	1	1
Degree of Util (X)	0.002	0.157	0.67
Departure Headway (Hd)	5.385	4.616	4.314
Convergence, Y/N	Yes	Yes	Yes
Cap	667	781	827
Service Time	3.397	2.616	2.409
HCM Lane V/C Ratio	0.001	0.157	0.676
HCM Control Delay	8.4	8.5	15.9
HCM Lane LOS	A	A	C
HCM 95th-tile Q	0	0.6	5.3

Intersection	
Int Delay, s/veh	1.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	126	0	12	89	0	30
Future Vol, veh/h	126	0	12	89	0	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	137	0	13	97	0	33

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	137	0	260	137
Stage 1	-	-	-	-	137	-
Stage 2	-	-	-	-	123	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1459	-	733	917
Stage 1	-	-	-	-	895	-
Stage 2	-	-	-	-	907	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1459	-	726	917
Mov Cap-2 Maneuver	-	-	-	-	741	-
Stage 1	-	-	-	-	895	-
Stage 2	-	-	-	-	899	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	917	-	-	1459	-
HCM Lane V/C Ratio	0.036	-	-	0.009	-
HCM Control Delay (s)	9.1	-	-	7.5	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	157	0	2	100	0	6
Future Vol, veh/h	157	0	2	100	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	171	0	2	109	0	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	171	0	284	171
Stage 1	-	-	-	-	171	-
Stage 2	-	-	-	-	113	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1418	-	710	878
Stage 1	-	-	-	-	864	-
Stage 2	-	-	-	-	917	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1418	-	709	878
Mov Cap-2 Maneuver	-	-	-	-	728	-
Stage 1	-	-	-	-	864	-
Stage 2	-	-	-	-	916	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	878	-	-	1418	-
HCM Lane V/C Ratio	0.007	-	-	0.002	-
HCM Control Delay (s)	9.1	-	-	7.5	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	162	0	2	103	0	6
Future Vol, veh/h	162	0	2	103	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	176	0	2	112	0	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	176	0	292	176
Stage 1	-	-	-	-	176	-
Stage 2	-	-	-	-	116	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1412	-	703	872
Stage 1	-	-	-	-	859	-
Stage 2	-	-	-	-	914	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1412	-	702	872
Mov Cap-2 Maneuver	-	-	-	-	723	-
Stage 1	-	-	-	-	859	-
Stage 2	-	-	-	-	913	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	9.2
HCM LOS			A

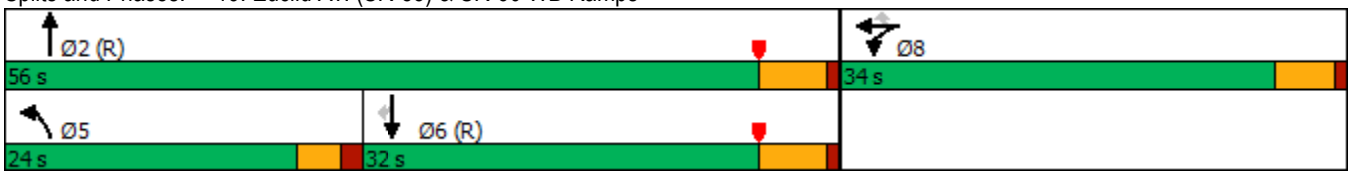
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	872	-	-	1412	-
HCM Lane V/C Ratio	0.007	-	-	0.002	-
HCM Control Delay (s)	9.2	-	-	7.6	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

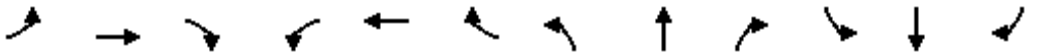
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	586	6	392	240	1038	968	473
Future Volume (vph)	586	6	392	240	1038	968	473
Turn Type	Split	NA	Perm	Prot	NA	NA	Perm
Protected Phases	8	8		5	2	6	
Permitted Phases			8				6
Detector Phase	8	8	8	5	2	6	6
Switch Phase							
Minimum Initial (s)	6.0	6.0	6.0	5.0	10.0	10.0	10.0
Minimum Split (s)	11.0	11.0	11.0	9.5	22.5	22.5	22.5
Total Split (s)	34.0	34.0	34.0	24.0	56.0	32.0	32.0
Total Split (%)	37.8%	37.8%	37.8%	26.7%	62.2%	35.6%	35.6%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.5	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.5	5.5	5.5	5.5
Lead/Lag				Lead		Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 63 (70%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 19: Euclid Av. (SR-83) & SR-60 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	586	6	392	240	1038	0	0	968	473
Future Volume (veh/h)	0	0	0	586	6	392	240	1038	0	0	968	473
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				683	0	153	250	1081	0	0	1008	288
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				792	0	352	281	2399	0	0	1657	739
Arrive On Green				0.22	0.00	0.22	0.31	1.00	0.00	0.00	0.46	0.46
Sat Flow, veh/h				3619	0	1608	1810	3705	0	0	3705	1610
Grp Volume(v), veh/h				683	0	153	250	1081	0	0	1008	288
Grp Sat Flow(s),veh/h/ln				1810	0	1608	1810	1805	0	0	1805	1610
Q Serve(g_s), s				16.4	0.0	7.4	11.8	0.0	0.0	0.0	18.9	10.6
Cycle Q Clear(g_c), s				16.4	0.0	7.4	11.8	0.0	0.0	0.0	18.9	10.6
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				792	0	352	281	2399	0	0	1657	739
V/C Ratio(X)				0.86	0.00	0.43	0.89	0.45	0.00	0.00	0.61	0.39
Avail Cap(c_a), veh/h				1166	0	518	392	2399	0	0	1657	739
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.59	0.59	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				33.9	0.0	30.4	30.3	0.0	0.0	0.0	18.3	16.0
Incr Delay (d2), s/veh				3.2	0.0	0.3	8.6	0.4	0.0	0.0	1.7	1.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.1	0.0	2.7	4.8	0.1	0.0	0.0	7.5	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				37.1	0.0	30.7	38.8	0.4	0.0	0.0	19.9	17.6
LnGrp LOS				D	A	C	D	A	A	A	B	B
Approach Vol, veh/h					836			1331			1296	
Approach Delay, s/veh					35.9			7.6			19.4	
Approach LOS					D			A			B	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	65.3		18.5	46.8		24.7						
Change Period (Y+Rc), s	5.5		4.5	5.5		5.0						
Max Green Setting (Gmax), s	50.5		19.5	26.5		29.0						
Max Q Clear Time (g_c+I1), s	2.0		13.8	20.9		18.4						
Green Ext Time (p_c), s	14.2		0.2	4.1		1.3						

Intersection Summary		
HCM 6th Ctrl Delay	18.9	
HCM 6th LOS	B	

Notes

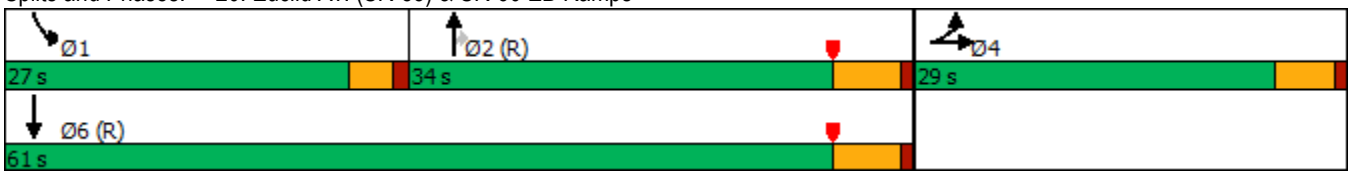
User approved volume balancing among the lanes for turning movement.

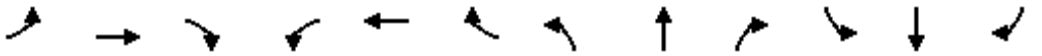
Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	400	3	878	567	361	1195
Future Volume (vph)	400	3	878	567	361	1195
Turn Type	Split	NA	NA	Perm	Prot	NA
Protected Phases	4	4	2		1	6
Permitted Phases				2		
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	6.0	6.0	10.0	10.0	5.0	10.0
Minimum Split (s)	11.0	11.0	22.5	22.5	9.0	22.5
Total Split (s)	29.0	29.0	34.0	34.0	27.0	61.0
Total Split (%)	32.2%	32.2%	37.8%	37.8%	30.0%	67.8%
Yellow Time (s)	4.0	4.0	4.5	4.5	3.0	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.5	5.5	4.0	5.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Min	C-Min	None	C-Min

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 20: Euclid Av. (SR-83) & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	400	3	309	0	0	0	0	878	567	361	1195	0
Future Volume (veh/h)	400	3	309	0	0	0	0	878	567	361	1195	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	329	113	248				0	896	385	368	1219	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	430	126	276				0	1384	603	395	2332	0
Arrive On Green	0.24	0.24	0.24				0.00	0.38	0.38	0.44	1.00	0.00
Sat Flow, veh/h	1810	529	1162				0	3705	1572	1810	3705	0
Grp Volume(v), veh/h	329	0	361				0	896	385	368	1219	0
Grp Sat Flow(s),veh/h/ln	1810	0	1691				0	1805	1572	1810	1805	0
Q Serve(g_s), s	15.3	0.0	18.6				0.0	18.3	18.0	17.4	0.0	0.0
Cycle Q Clear(g_c), s	15.3	0.0	18.6				0.0	18.3	18.0	17.4	0.0	0.0
Prop In Lane	1.00		0.69				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	430	0	401				0	1384	603	395	2332	0
V/C Ratio(X)	0.77	0.00	0.90				0.00	0.65	0.64	0.93	0.52	0.00
Avail Cap(c_a), veh/h	483	0	451				0	1384	603	462	2332	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.70	0.70	0.61	0.61	0.00
Uniform Delay (d), s/veh	32.0	0.0	33.3				0.0	22.8	22.7	24.8	0.0	0.0
Incr Delay (d2), s/veh	5.4	0.0	18.1				0.0	1.7	3.6	15.8	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	0.0	9.1				0.0	7.5	6.8	6.8	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.4	0.0	51.4				0.0	24.4	26.3	40.6	0.5	0.0
LnGrp LOS	D	A	D				A	C	C	D	A	A
Approach Vol, veh/h		690						1281			1587	
Approach Delay, s/veh		44.7						25.0			9.8	
Approach LOS		D						C			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	23.6	40.0		26.4		63.6
Change Period (Y+Rc), s	4.0	5.5		5.0		5.5
Max Green Setting (Gmax), s	23.0	28.5		24.0		55.5
Max Q Clear Time (g_c+I1), s	19.4	20.3		20.6		2.0
Green Ext Time (p_c), s	0.2	5.4		0.7		17.6

Intersection Summary	
HCM 6th Ctrl Delay	22.0
HCM 6th LOS	C

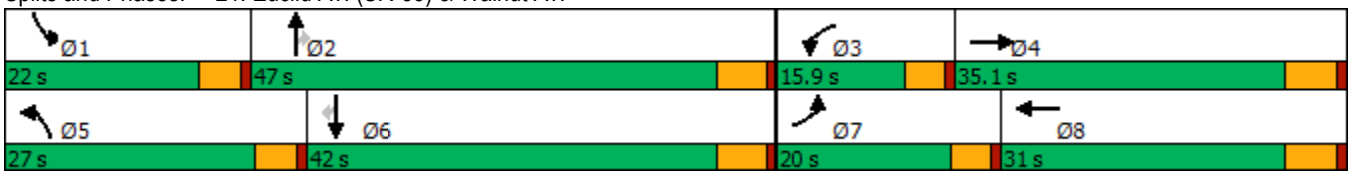
Notes

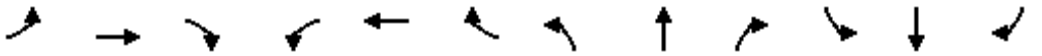
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	103	356	67	356	179	1184	70	253	1071	141
Future Volume (vph)	103	356	67	356	179	1184	70	253	1071	141
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.8	9.6	29.8	9.6	27.4	27.4	9.6	29.4	29.4
Total Split (s)	20.0	35.1	15.9	31.0	27.0	47.0	47.0	22.0	42.0	42.0
Total Split (%)	16.7%	29.3%	13.3%	25.8%	22.5%	39.2%	39.2%	18.3%	35.0%	35.0%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 108.6
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 21: Euclid Av. (SR-83) & Walnut Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	356	133	67	356	135	179	1184	70	253	1071	141
Future Volume (veh/h)	103	356	133	67	356	135	179	1184	70	253	1071	141
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1600	1800	1800
Adj Flow Rate, veh/h	110	379	118	71	379	118	190	1260	47	269	1139	96
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	135	553	170	89	479	147	220	2038	632	330	1919	595
Arrive On Green	0.08	0.22	0.22	0.05	0.19	0.19	0.14	0.41	0.41	0.11	0.39	0.39
Sat Flow, veh/h	1619	2567	788	1619	2561	786	1619	4914	1523	2956	4914	1524
Grp Volume(v), veh/h	110	251	246	71	251	246	190	1260	47	269	1139	96
Grp Sat Flow(s),veh/h/ln	1619	1710	1645	1619	1710	1637	1619	1638	1523	1478	1638	1524
Q Serve(g_s), s	6.7	13.5	13.9	4.3	14.0	14.4	11.5	20.2	1.9	8.9	18.4	4.1
Cycle Q Clear(g_c), s	6.7	13.5	13.9	4.3	14.0	14.4	11.5	20.2	1.9	8.9	18.4	4.1
Prop In Lane	1.00		0.48	1.00		0.48	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	135	368	354	89	320	306	220	2038	632	330	1919	595
V/C Ratio(X)	0.82	0.68	0.69	0.80	0.79	0.80	0.86	0.62	0.07	0.82	0.59	0.16
Avail Cap(c_a), veh/h	249	500	480	182	430	411	362	2038	632	513	1919	595
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.2	36.2	36.3	46.9	38.9	39.0	42.4	23.1	17.7	43.5	24.2	19.9
Incr Delay (d2), s/veh	4.5	2.2	2.7	6.1	6.7	8.1	6.0	1.4	0.2	2.9	1.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	5.6	5.6	1.8	6.2	6.2	4.8	7.6	0.7	3.3	7.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.7	38.4	39.0	53.0	45.6	47.1	48.5	24.5	17.9	46.5	25.6	20.5
LnGrp LOS	D	D	D	D	D	D	D	C	B	D	C	C
Approach Vol, veh/h		607			568			1497			1504	
Approach Delay, s/veh		40.7			47.2			27.3			29.0	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.8	47.0	10.1	27.4	18.2	44.6	13.0	24.5
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	17.4	41.6	11.3	29.3	22.4	36.6	15.4	25.2
Max Q Clear Time (g_c+I1), s	10.9	22.2	6.3	15.9	13.5	20.4	8.7	16.4
Green Ext Time (p_c), s	0.3	8.7	0.0	2.2	0.2	7.2	0.1	1.8

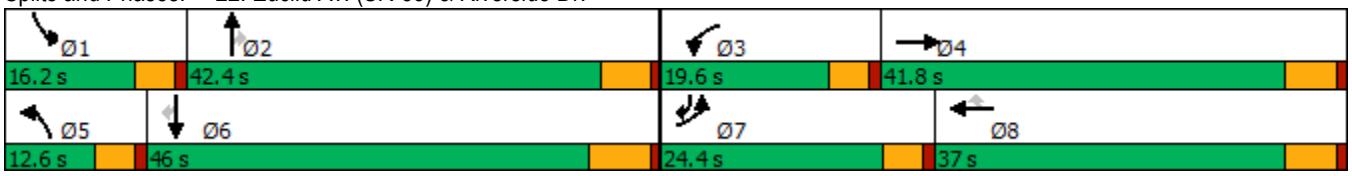
Intersection Summary	
HCM 6th Ctrl Delay	32.6
HCM 6th LOS	C

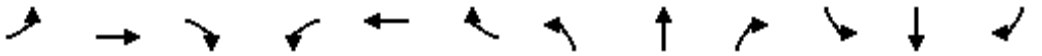
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	145	440	178	393	62	65	1002	231	134	891	185
Future Volume (vph)	145	440	178	393	62	65	1002	231	134	891	185
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4	3	8		5	2		1	6	7
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	25.8	9.6	31.8	31.8	9.6	30.4	30.4	9.6	34.5	9.6
Total Split (s)	24.4	41.8	19.6	37.0	37.0	12.6	42.4	42.4	16.2	46.0	24.4
Total Split (%)	20.3%	34.8%	16.3%	30.8%	30.8%	10.5%	35.3%	35.3%	13.5%	38.3%	20.3%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 119.7
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Euclid Av. (SR-83) & Riverside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	440	72	178	393	62	65	1002	231	134	891	185
Future Volume (veh/h)	145	440	72	178	393	62	65	1002	231	134	891	185
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	151	458	50	185	409	49	68	1044	187	140	928	102
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	175	474	52	201	1070	477	85	1045	466	155	1194	691
Arrive On Green	0.11	0.30	0.30	0.12	0.31	0.31	0.05	0.31	0.31	0.10	0.35	0.35
Sat Flow, veh/h	1619	1595	174	1619	3420	1524	1619	3420	1525	1619	3420	1506
Grp Volume(v), veh/h	151	0	508	185	409	49	68	1044	187	140	928	102
Grp Sat Flow(s),veh/h/ln	1619	0	1769	1619	1710	1524	1619	1710	1525	1619	1710	1506
Q Serve(g_s), s	11.1	0.0	34.3	13.7	11.3	2.8	5.0	37.0	11.8	10.4	29.4	4.8
Cycle Q Clear(g_c), s	11.1	0.0	34.3	13.7	11.3	2.8	5.0	37.0	11.8	10.4	29.4	4.8
Prop In Lane	1.00		0.10	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	175	0	526	201	1070	477	85	1045	466	155	1194	691
V/C Ratio(X)	0.86	0.00	0.97	0.92	0.38	0.10	0.80	1.00	0.40	0.90	0.78	0.15
Avail Cap(c_a), veh/h	265	0	526	201	1070	477	107	1045	466	155	1194	691
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.1	0.0	41.9	52.5	32.5	29.5	56.8	42.0	33.3	54.2	35.2	19.1
Incr Delay (d2), s/veh	11.3	0.0	30.7	41.7	0.2	0.1	22.9	27.6	2.6	44.1	5.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	0.0	18.8	7.7	4.6	1.0	2.5	18.6	4.6	6.1	12.7	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.4	0.0	72.6	94.2	32.7	29.6	79.7	69.7	35.8	98.3	40.2	19.6
LnGrp LOS	E	A	E	F	C	C	E	E	D	F	D	B
Approach Vol, veh/h		659			643			1299			1170	
Approach Delay, s/veh		70.8			50.2			65.3			45.4	
Approach LOS		E			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.2	43.5	19.6	41.8	10.9	48.8	17.7	43.7
Change Period (Y+Rc), s	4.6	* 6.5	4.6	5.8	4.6	6.5	4.6	5.8
Max Green Setting (Gmax), s	11.6	* 37	15.0	36.0	8.0	39.5	19.8	31.2
Max Q Clear Time (g_c+I1), s	12.4	39.0	15.7	36.3	7.0	31.4	13.1	13.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	3.9	0.1	2.4

Intersection Summary	
HCM 6th Ctrl Delay	57.5
HCM 6th LOS	E

Notes

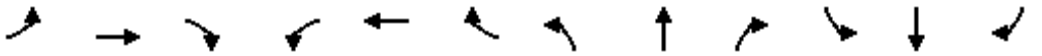
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	93	273	47	75	108	39	1194	220	24	1011	69
Future Volume (vph)	93	273	47	75	108	39	1194	220	24	1011	69
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	28.8	28.8	28.8	33.8	33.8	9.6	24.2	24.2	9.6	31.5	31.5
Total Split (s)	44.0	44.0	44.0	44.0	44.0	12.4	65.0	65.0	11.0	63.6	63.6
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	10.3%	54.2%	54.2%	9.2%	53.0%	53.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	3.6	4.2	4.2	3.6	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8		5.8	4.6	5.2	5.2	4.6	6.5	6.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 103
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: Euclid Av. (SR-83) & Chino Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	273	47	75	108	9	39	1194	220	24	1011	69
Future Volume (veh/h)	93	273	47	75	108	9	39	1194	220	24	1011	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	100	294	28	81	116	6	42	1284	166	26	1087	41
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	268	490	415	119	153	7	53	1875	819	40	1847	807
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.55	0.55	0.02	0.54	0.54
Sat Flow, veh/h	1218	1800	1525	269	562	25	1619	3420	1494	1619	3420	1494
Grp Volume(v), veh/h	100	294	28	203	0	0	42	1284	166	26	1087	41
Grp Sat Flow(s),veh/h/ln	1218	1800	1525	856	0	0	1619	1710	1494	1619	1710	1494
Q Serve(g_s), s	0.0	15.5	1.5	11.5	0.0	0.0	2.8	29.6	6.2	1.7	23.4	1.4
Cycle Q Clear(g_c), s	13.4	15.5	1.5	27.0	0.0	0.0	2.8	29.6	6.2	1.7	23.4	1.4
Prop In Lane	1.00		1.00	0.40		0.03	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	268	490	415	279	0	0	53	1875	819	40	1847	807
V/C Ratio(X)	0.37	0.60	0.07	0.73	0.00	0.00	0.79	0.68	0.20	0.64	0.59	0.05
Avail Cap(c_a), veh/h	363	630	534	389	0	0	116	1875	819	95	1847	807
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.8	34.6	29.5	41.5	0.0	0.0	52.4	17.8	12.5	52.7	16.9	11.9
Incr Delay (d2), s/veh	0.9	1.2	0.1	4.2	0.0	0.0	9.1	2.1	0.6	6.2	1.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	6.7	0.5	5.5	0.0	0.0	1.2	10.5	1.9	0.7	8.3	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.6	35.7	29.5	45.7	0.0	0.0	61.5	19.9	13.1	58.9	18.3	12.0
LnGrp LOS	C	D	C	D	A	A	E	B	B	E	B	B
Approach Vol, veh/h		422			203			1492			1154	
Approach Delay, s/veh		35.1			45.7			20.3			19.0	
Approach LOS		D			D			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	66.3		35.5	8.2	65.4		35.5				
Change Period (Y+Rc), s	4.6	* 6.5		5.8	4.6	6.5		5.8				
Max Green Setting (Gmax), s	6.4	* 60		38.2	7.8	57.1		38.2				
Max Q Clear Time (g_c+I1), s	3.7	31.6		17.5	4.8	25.4		29.0				
Green Ext Time (p_c), s	0.0	10.3		1.9	0.0	8.0		0.7				

Intersection Summary		
HCM 6th Ctrl Delay		23.3
HCM 6th LOS		C

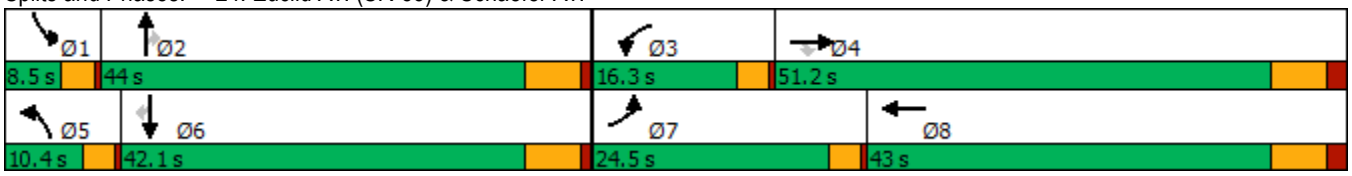
Notes

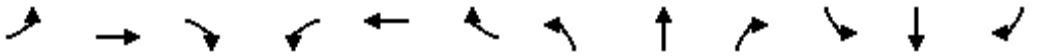
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	280	276	178	76	64	82	1122	80	28	1028	111
Future Volume (vph)	280	276	178	76	64	82	1122	80	28	1028	111
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.5	42.0	42.0	13.5	43.0	8.5	33.0	33.0	8.5	28.0	28.0
Total Split (s)	24.5	51.2	51.2	16.3	43.0	10.4	44.0	44.0	8.5	42.1	42.1
Total Split (%)	20.4%	42.7%	42.7%	13.6%	35.8%	8.7%	36.7%	36.7%	7.1%	35.1%	35.1%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	7.0	7.0	3.5	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 94.8
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Euclid Av. (SR-83) & Schaefer Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	280	276	178	76	64	25	82	1122	80	28	1028	111
Future Volume (veh/h)	280	276	178	76	64	25	82	1122	80	28	1028	111
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	283	279	139	77	65	20	83	1133	63	28	1038	82
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	321	349	296	171	134	41	103	1391	620	48	1274	568
Arrive On Green	0.20	0.19	0.19	0.11	0.10	0.10	0.06	0.41	0.41	0.03	0.37	0.37
Sat Flow, veh/h	1619	1800	1525	1619	1321	406	1619	3420	1525	1619	3420	1525
Grp Volume(v), veh/h	283	279	139	77	0	85	83	1133	63	28	1038	82
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1619	0	1727	1619	1710	1525	1619	1710	1525
Q Serve(g_s), s	12.9	11.2	6.1	3.4	0.0	3.5	3.8	22.3	1.9	1.3	20.7	2.7
Cycle Q Clear(g_c), s	12.9	11.2	6.1	3.4	0.0	3.5	3.8	22.3	1.9	1.3	20.7	2.7
Prop In Lane	1.00		1.00	1.00		0.24	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	321	349	296	171	0	175	103	1391	620	48	1274	568
V/C Ratio(X)	0.88	0.80	0.47	0.45	0.00	0.49	0.81	0.81	0.10	0.59	0.81	0.14
Avail Cap(c_a), veh/h	449	1050	890	273	0	820	147	1715	765	107	1629	727
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.5	29.1	27.1	31.8	0.0	32.2	35.0	19.9	13.9	36.3	21.4	15.8
Incr Delay (d2), s/veh	11.0	3.2	0.9	0.7	0.0	1.5	12.4	2.6	0.1	4.2	2.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	4.7	2.1	1.3	0.0	1.4	1.7	7.7	0.6	0.5	7.3	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.5	32.3	27.9	32.5	0.0	33.7	47.4	22.5	14.0	40.6	24.0	15.9
LnGrp LOS	D	C	C	C	A	C	D	C	B	D	C	B
Approach Vol, veh/h		701			162			1279			1148	
Approach Delay, s/veh		34.7			33.1			23.7			23.8	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.7	36.8	11.5	21.7	8.3	34.2	18.5	14.7
Change Period (Y+Rc), s	3.5	6.0	3.5	7.0	3.5	6.0	3.5	7.0
Max Green Setting (Gmax), s	5.0	38.0	12.8	44.2	6.9	36.1	21.0	36.0
Max Q Clear Time (g_c+I1), s	3.3	24.3	5.4	13.2	5.8	22.7	14.9	5.5
Green Ext Time (p_c), s	0.0	6.1	0.0	1.5	0.0	5.5	0.2	0.3

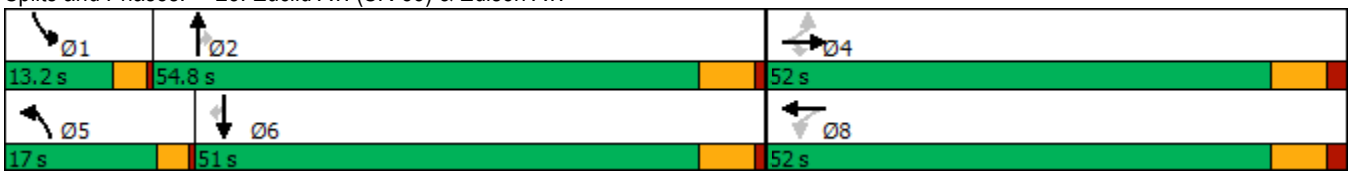
Intersection Summary	
HCM 6th Ctrl Delay	26.6
HCM 6th LOS	C

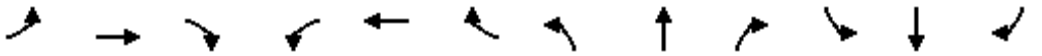
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	265	463	279	40	252	140	1074	70	82	1104	175
Future Volume (vph)	265	463	279	40	252	140	1074	70	82	1104	175
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	46.0	46.0	46.0	49.0	49.0	8.5	29.0	29.0	8.5	40.0	40.0
Total Split (s)	52.0	52.0	52.0	52.0	52.0	17.0	54.8	54.8	13.2	51.0	51.0
Total Split (%)	43.3%	43.3%	43.3%	43.3%	43.3%	14.2%	45.7%	45.7%	11.0%	42.5%	42.5%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 114.5
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 25: Euclid Av. (SR-83) & Edison Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	265	463	279	40	252	34	140	1074	70	82	1104	175
Future Volume (veh/h)	265	463	279	40	252	34	140	1074	70	82	1104	175
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	279	487	212	42	265	30	147	1131	66	86	1162	152
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	333	692	587	174	610	69	171	1399	622	106	1261	562
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.11	0.41	0.41	0.07	0.37	0.37
Sat Flow, veh/h	1040	1800	1525	717	1586	179	1619	3420	1522	1619	3420	1525
Grp Volume(v), veh/h	279	487	212	42	0	295	147	1131	66	86	1162	152
Grp Sat Flow(s),veh/h/ln	1040	1800	1525	717	0	1765	1619	1710	1522	1619	1710	1525
Q Serve(g_s), s	30.6	26.7	11.6	6.1	0.0	14.4	10.4	34.2	3.1	6.1	38.0	8.2
Cycle Q Clear(g_c), s	45.0	26.7	11.6	32.8	0.0	14.4	10.4	34.2	3.1	6.1	38.0	8.2
Prop In Lane	1.00		1.00	1.00		0.10	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	333	692	587	174	0	679	171	1399	622	106	1261	562
V/C Ratio(X)	0.84	0.70	0.36	0.24	0.00	0.43	0.86	0.81	0.11	0.81	0.92	0.27
Avail Cap(c_a), veh/h	333	692	587	174	0	679	187	1427	635	134	1316	587
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.6	30.4	25.7	44.2	0.0	26.6	51.5	30.5	21.4	54.0	35.3	25.9
Incr Delay (d2), s/veh	16.8	3.2	0.4	0.7	0.0	0.4	27.3	3.5	0.1	20.2	10.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.4	11.6	4.1	1.1	0.0	5.9	5.3	13.5	1.1	3.0	16.4	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.5	33.6	26.1	44.9	0.0	27.0	78.7	34.1	21.4	74.1	45.9	26.2
LnGrp LOS	E	C	C	D	A	C	E	C	C	E	D	C
Approach Vol, veh/h		978			337			1344			1400	
Approach Delay, s/veh		39.6			29.3			38.3			45.5	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.1	53.8		52.0	15.9	49.1		52.0				
Change Period (Y+Rc), s	3.5	6.0		7.0	3.5	6.0		7.0				
Max Green Setting (Gmax), s	9.7	48.8		45.0	13.5	45.0		45.0				
Max Q Clear Time (g_c+I1), s	8.1	36.2		47.0	12.4	40.0		34.8				
Green Ext Time (p_c), s	0.0	5.8		0.0	0.0	3.1		1.3				

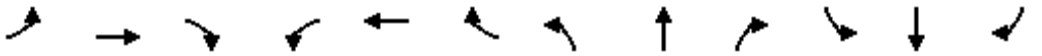
Intersection Summary												
HCM 6th Ctrl Delay			40.4									
HCM 6th LOS			D									

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	37	157	203	8	21	104	1112	17	44	1253	62
Future Volume (vph)	37	157	203	8	21	104	1112	17	44	1253	62
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	46.8	46.8	46.8	46.8	46.8	8.5	30.7	30.7	8.5	37.7	37.7
Total Split (s)	46.8	46.8	46.8	46.8	46.8	14.0	63.2	63.2	10.0	59.2	59.2
Total Split (%)	39.0%	39.0%	39.0%	39.0%	39.0%	11.7%	52.7%	52.7%	8.3%	49.3%	49.3%
Yellow Time (s)	4.3	4.3	4.3	4.3	4.3	3.0	4.7	4.7	3.0	4.7	4.7
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.8	4.8	3.5	5.7	5.7	3.5	5.7	5.7
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 84.8
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 26: Euclid Av. (SR-83) & Eucalyptus Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	157	203	8	21	9	104	1112	17	44	1253	62
Future Volume (veh/h)	37	157	203	8	21	9	104	1112	17	44	1253	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	42	176	112	9	24	7	117	1249	18	49	1408	58
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	284	257	218	168	191	56	146	2002	893	74	1851	808
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.09	0.59	0.59	0.05	0.54	0.54
Sat Flow, veh/h	1322	1800	1525	1047	1339	391	1619	3420	1525	1619	3420	1494
Grp Volume(v), veh/h	42	176	112	9	0	31	117	1249	18	49	1408	58
Grp Sat Flow(s),veh/h/ln	1322	1800	1525	1047	0	1730	1619	1710	1525	1619	1710	1494
Q Serve(g_s), s	1.8	5.8	4.2	0.5	0.0	1.0	4.4	14.8	0.3	1.8	19.9	1.1
Cycle Q Clear(g_c), s	2.7	5.8	4.2	6.3	0.0	1.0	4.4	14.8	0.3	1.8	19.9	1.1
Prop In Lane	1.00		1.00	1.00		0.23	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	284	257	218	168	0	247	146	2002	893	74	1851	808
V/C Ratio(X)	0.15	0.69	0.51	0.05	0.00	0.13	0.80	0.62	0.02	0.66	0.76	0.07
Avail Cap(c_a), veh/h	992	1220	1034	729	0	1173	274	3174	1416	170	2953	1290
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.4	25.2	24.6	28.2	0.0	23.2	27.6	8.4	5.4	29.1	11.1	6.8
Incr Delay (d2), s/veh	0.2	2.4	1.4	0.1	0.0	0.2	7.3	0.3	0.0	7.1	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.4	1.4	0.1	0.0	0.4	1.8	3.2	0.1	0.8	4.8	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.6	27.6	26.0	28.3	0.0	23.4	35.0	8.7	5.4	36.2	11.8	6.8
LnGrp LOS	C	C	C	C	A	C	C	A	A	D	B	A
Approach Vol, veh/h		330			40			1384			1515	
Approach Delay, s/veh		26.7			24.5			10.9			12.4	
Approach LOS		C			C			B			B	

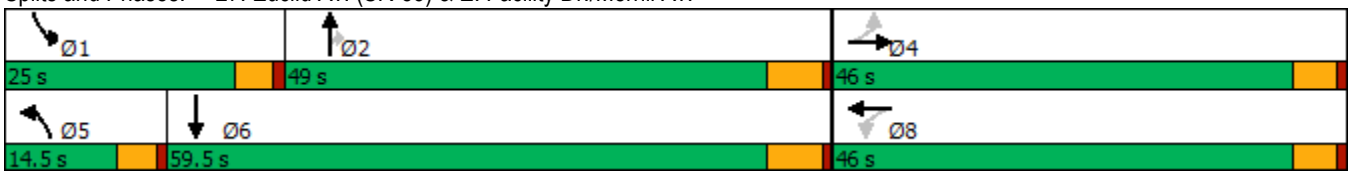
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.3	42.0		13.6	9.1	39.2		13.6				
Change Period (Y+Rc), s	3.5	5.7		4.8	3.5	5.7		4.8				
Max Green Setting (Gmax), s	6.5	57.5		42.0	10.5	53.5		42.0				
Max Q Clear Time (g_c+I1), s	3.8	16.8		7.8	6.4	21.9		8.3				
Green Ext Time (p_c), s	0.0	10.2		1.1	0.1	11.6		0.1				

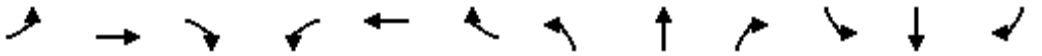
Intersection Summary			
HCM 6th Ctrl Delay		13.3	
HCM 6th LOS		B	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	11	29	184	2	4	1174	226	251	1170
Future Volume (vph)	11	29	184	2	4	1174	226	251	1170
Turn Type	Perm	NA	Perm	NA	Prot	NA	Perm	Prot	NA
Protected Phases		4		8	5	2		1	6
Permitted Phases	4		8				2		
Detector Phase	4	4	8	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	15.0	15.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	10.0	10.0	46.0	46.0	14.5	28.0	28.0	14.5	28.0
Total Split (s)	46.0	46.0	46.0	46.0	14.5	49.0	49.0	25.0	59.5
Total Split (%)	38.3%	38.3%	38.3%	38.3%	12.1%	40.8%	40.8%	20.8%	49.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.5	5.0	5.0	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	4.5	6.0	6.0	4.5	6.0
Lead/Lag					Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 109.3
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 27: Euclid Av. (SR-83) & E. Facility Dr./Merrill Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	29	12	184	2	136	4	1174	226	251	1170	1
Future Volume (veh/h)	11	29	12	184	2	136	4	1174	226	251	1170	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	12	32	12	202	2	139	4	1290	183	276	1286	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	106	262	89	277	2	152	17	1391	620	303	1994	0
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.01	0.41	0.41	0.19	0.58	0.00
Sat Flow, veh/h	248	1025	347	866	9	596	1619	3420	1525	1619	3510	0
Grp Volume(v), veh/h	56	0	0	343	0	0	4	1290	183	276	1286	0
Grp Sat Flow(s),veh/h/ln	1620	0	0	1470	0	0	1619	1710	1525	1619	1710	0
Q Serve(g_s), s	0.0	0.0	0.0	20.6	0.0	0.0	0.3	36.9	8.3	17.2	25.8	0.0
Cycle Q Clear(g_c), s	2.6	0.0	0.0	23.2	0.0	0.0	0.3	36.9	8.3	17.2	25.8	0.0
Prop In Lane	0.21		0.21	0.59		0.41	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	456	0	0	431	0	0	17	1391	620	303	1994	0
V/C Ratio(X)	0.12	0.00	0.00	0.80	0.00	0.00	0.24	0.93	0.30	0.91	0.64	0.00
Avail Cap(c_a), veh/h	685	0	0	638	0	0	158	1431	638	323	1994	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.4	0.0	0.0	36.9	0.0	0.0	50.4	29.0	20.6	40.9	14.3	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.4	0.0	0.0	2.6	10.6	0.3	26.8	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	8.1	0.0	0.0	0.1	15.4	2.7	8.6	8.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.5	0.0	0.0	39.2	0.0	0.0	53.0	39.6	20.8	67.7	15.0	0.0
LnGrp LOS	C	A	A	D	A	A	D	D	C	E	B	A
Approach Vol, veh/h		56			343			1477			1562	
Approach Delay, s/veh		29.5			39.2			37.3			24.3	
Approach LOS		C			D			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.7	47.8		31.2	5.6	65.9		31.2				
Change Period (Y+Rc), s	4.5	6.0		5.0	4.5	6.0		5.0				
Max Green Setting (Gmax), s	20.5	43.0		41.0	10.0	53.5		41.0				
Max Q Clear Time (g_c+I1), s	19.2	38.9		4.6	2.3	27.8		25.2				
Green Ext Time (p_c), s	0.1	2.9		0.2	0.0	9.3		1.0				

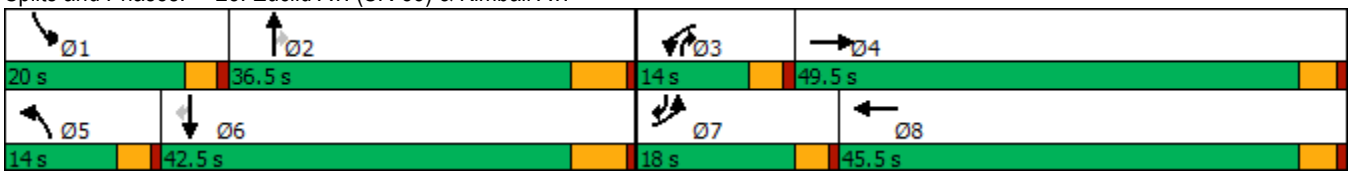
Intersection Summary	
HCM 6th Ctrl Delay	31.5
HCM 6th LOS	C

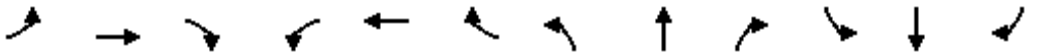
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	346	743	59	305	60	840	38	412	740	229
Future Volume (vph)	346	743	59	305	60	840	38	412	740	229
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	3	8	5	2	3	1	6	7
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	7
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	14.0	49.5	14.0	45.5	14.0	36.0	14.0	9.0	33.0	14.0
Total Split (s)	18.0	49.5	14.0	45.5	14.0	36.5	14.0	20.0	42.5	18.0
Total Split (%)	15.0%	41.3%	11.7%	37.9%	11.7%	30.4%	11.7%	16.7%	35.4%	15.0%
Yellow Time (s)	3.0	3.5	3.0	3.5	3.0	5.0	3.0	3.0	5.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.5	4.0	4.5	4.0	6.0	4.0	4.0	6.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	None	Min	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 105.7
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 28: Euclid Av. (SR-83) & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	346	743	45	59	305	165	60	840	38	412	740	229
Future Volume (veh/h)	346	743	45	59	305	165	60	840	38	412	740	229
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1600	1800	1800	1700	1800	1800	1700	1800	1800	1600	1800	1800
Adj Flow Rate, veh/h	357	766	43	61	314	132	62	866	24	425	763	138
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	410	941	53	133	541	223	134	972	559	476	1240	764
Arrive On Green	0.14	0.29	0.29	0.08	0.23	0.23	0.08	0.28	0.28	0.16	0.36	0.36
Sat Flow, veh/h	2956	3292	185	1619	2362	973	1619	3420	1525	2956	3420	1524
Grp Volume(v), veh/h	357	398	411	61	225	221	62	866	24	425	763	138
Grp Sat Flow(s),veh/h/ln	1478	1710	1767	1619	1710	1625	1619	1710	1525	1478	1710	1524
Q Serve(g_s), s	11.7	21.4	21.5	3.6	11.6	12.0	3.6	24.0	1.0	13.9	18.1	4.9
Cycle Q Clear(g_c), s	11.7	21.4	21.5	3.6	11.6	12.0	3.6	24.0	1.0	13.9	18.1	4.9
Prop In Lane	1.00		0.10	1.00		0.60	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	410	489	505	133	392	372	134	972	559	476	1240	764
V/C Ratio(X)	0.87	0.81	0.81	0.46	0.58	0.59	0.46	0.89	0.04	0.89	0.62	0.18
Avail Cap(c_a), veh/h	418	777	803	164	708	673	164	1053	595	478	1261	773
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.8	32.9	32.9	43.3	33.9	34.0	43.3	34.0	20.2	40.7	25.9	13.5
Incr Delay (d2), s/veh	16.8	3.6	3.5	0.9	0.5	0.6	0.9	9.2	0.0	18.2	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	8.8	9.1	1.4	4.6	4.6	1.4	10.3	0.3	5.9	6.8	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.5	36.6	36.5	44.3	34.4	34.6	44.3	43.2	20.2	58.9	26.8	13.6
LnGrp LOS	E	D	D	D	C	C	D	D	C	E	C	B
Approach Vol, veh/h		1166			507			952			1326	
Approach Delay, s/veh		43.2			35.7			42.6			35.7	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	34.1	12.1	32.8	12.2	41.9	17.7	27.2
Change Period (Y+Rc), s	4.0	6.0	4.0	4.5	4.0	6.0	4.0	4.5
Max Green Setting (Gmax), s	16.0	30.5	10.0	45.0	10.0	36.5	14.0	41.0
Max Q Clear Time (g_c+I1), s	15.9	26.0	5.6	23.5	5.6	20.1	13.7	14.0
Green Ext Time (p_c), s	0.0	2.1	0.0	4.6	0.0	4.5	0.0	1.5

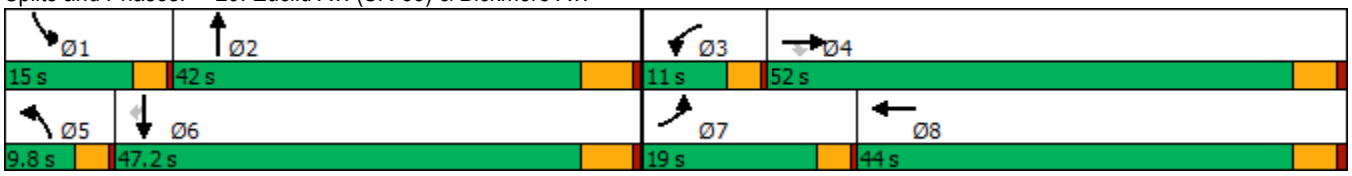
Intersection Summary	
HCM 6th Ctrl Delay	39.6
HCM 6th LOS	D

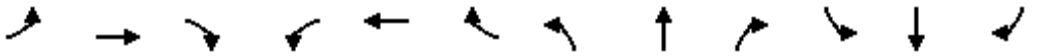
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	156	102	95	35	23	38	617	75	631	150
Future Volume (vph)	156	102	95	35	23	38	617	75	631	150
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.5	44.0	44.0	8.5	44.0	8.5	26.5	8.5	30.5	30.5
Total Split (s)	19.0	52.0	52.0	11.0	44.0	9.8	42.0	15.0	47.2	47.2
Total Split (%)	15.8%	43.3%	43.3%	9.2%	36.7%	8.2%	35.0%	12.5%	39.3%	39.3%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	3.0	4.5	3.0	4.5	4.5
All-Red Time (s)	0.5	1.0	1.0	0.5	1.0	0.5	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.5	3.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 68.8
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 29: Euclid Av. (SR-83) & Bickmore Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	156	102	95	35	23	49	38	617	73	75	631	150
Future Volume (veh/h)	156	102	95	35	23	49	38	617	73	75	631	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	170	111	88	38	25	25	41	671	56	82	686	131
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	213	360	305	68	91	91	73	917	76	117	1074	479
Arrive On Green	0.13	0.20	0.20	0.04	0.11	0.11	0.04	0.29	0.29	0.07	0.31	0.31
Sat Flow, veh/h	1619	1800	1525	1619	826	826	1619	3196	266	1619	3420	1525
Grp Volume(v), veh/h	170	111	88	38	0	50	41	359	368	82	686	131
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1619	0	1651	1619	1710	1752	1619	1710	1525
Q Serve(g_s), s	4.5	2.3	2.1	1.0	0.0	1.2	1.1	8.3	8.3	2.2	7.6	2.8
Cycle Q Clear(g_c), s	4.5	2.3	2.1	1.0	0.0	1.2	1.1	8.3	8.3	2.2	7.6	2.8
Prop In Lane	1.00		1.00	1.00		0.50	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	213	360	305	68	0	183	73	491	503	117	1074	479
V/C Ratio(X)	0.80	0.31	0.29	0.56	0.00	0.27	0.57	0.73	0.73	0.70	0.64	0.27
Avail Cap(c_a), veh/h	572	1928	1634	277	0	1468	233	1423	1458	424	3251	1450
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.5	15.0	14.9	20.6	0.0	17.9	20.5	14.1	14.1	19.9	12.9	11.3
Incr Delay (d2), s/veh	2.6	0.2	0.2	2.6	0.0	0.3	2.6	0.8	0.8	2.9	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.8	0.6	0.4	0.0	0.4	0.4	2.2	2.3	0.7	1.9	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.1	15.1	15.1	23.2	0.0	18.2	23.1	14.9	14.9	22.8	13.1	11.4
LnGrp LOS	C	B	B	C	A	B	C	B	B	C	B	B
Approach Vol, veh/h		369			88			768			899	
Approach Delay, s/veh		17.9			20.4			15.3			13.8	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.7	18.1	5.4	13.8	5.5	19.3	9.3	9.8
Change Period (Y+Rc), s	3.5	5.5	3.5	5.0	3.5	5.5	3.5	5.0
Max Green Setting (Gmax), s	11.5	36.5	7.5	47.0	6.3	41.7	15.5	39.0
Max Q Clear Time (g_c+I1), s	4.2	10.3	3.0	4.3	3.1	9.6	6.5	3.2
Green Ext Time (p_c), s	0.0	2.3	0.0	0.5	0.0	2.8	0.1	0.1

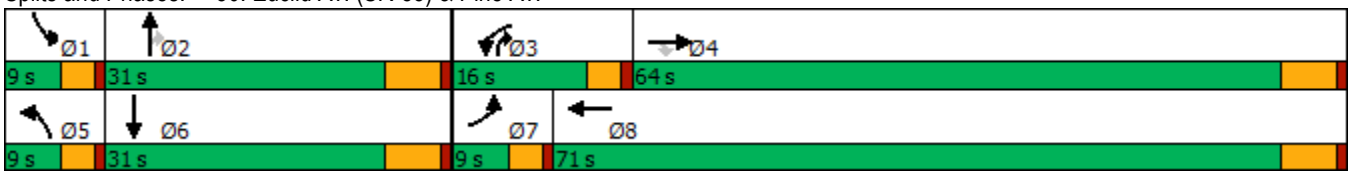
Intersection Summary	
HCM 6th Ctrl Delay	15.3
HCM 6th LOS	B

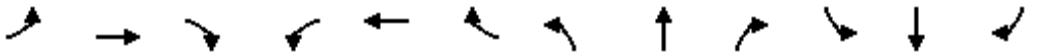
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	5	441	98	517	70	57	670	1061	68	711
Future Volume (vph)	5	441	98	517	70	57	670	1061	68	711
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4		3	8	5	2	3	1	6
Permitted Phases			4					2		
Detector Phase	7	4	4	3	8	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.0	43.0	43.0	9.0	45.0	9.0	11.0	9.0	9.0	29.0
Total Split (s)	9.0	64.0	64.0	16.0	71.0	9.0	31.0	16.0	9.0	31.0
Total Split (%)	7.5%	53.3%	53.3%	13.3%	59.2%	7.5%	25.8%	13.3%	7.5%	25.8%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0	3.0	3.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	4.0	6.0	4.0	4.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 91.8
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 30: Euclid Av. (SR-83) & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	441	98	517	70	29	57	670	1061	68	711	4
Future Volume (veh/h)	5	441	98	517	70	29	57	670	1061	68	711	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1600	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	5	450	0	528	71	28	58	684	666	69	726	4
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	11	543		402	529	209	71	968	639	86	1018	6
Arrive On Green	0.01	0.30	0.00	0.14	0.43	0.43	0.04	0.28	0.28	0.05	0.29	0.29
Sat Flow, veh/h	1619	1800	1525	2956	1228	484	1619	3420	1525	1619	3487	19
Grp Volume(v), veh/h	5	450	0	528	0	99	58	684	666	69	356	374
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1478	0	1713	1619	1710	1525	1619	1710	1797
Q Serve(g_s), s	0.3	20.6	0.0	12.0	0.0	3.1	3.1	15.8	25.0	3.7	16.4	16.4
Cycle Q Clear(g_c), s	0.3	20.6	0.0	12.0	0.0	3.1	3.1	15.8	25.0	3.7	16.4	16.4
Prop In Lane	1.00		1.00	1.00		0.28	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	11	543		402	0	738	71	968	639	86	499	524
V/C Ratio(X)	0.47	0.83		1.31	0.00	0.13	0.81	0.71	1.04	0.81	0.71	0.71
Avail Cap(c_a), veh/h	92	1182		402	0	1261	92	968	639	92	499	524
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.7	28.7	0.0	38.1	0.0	15.2	41.8	28.4	25.6	41.4	28.0	28.0
Incr Delay (d2), s/veh	11.7	4.7	0.0	158.1	0.0	0.1	26.7	2.0	47.0	34.2	4.1	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	8.9	0.0	12.9	0.0	1.1	1.7	6.1	19.8	2.2	6.6	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.4	33.4	0.0	196.3	0.0	15.3	68.6	30.4	72.6	75.6	32.1	31.9
LnGrp LOS	E	C		F	A	B	E	C	F	E	C	C
Approach Vol, veh/h		455	A		627			1408			799	
Approach Delay, s/veh		33.6			167.7			51.9			35.7	
Approach LOS		C			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	31.0	16.0	32.6	7.9	31.8	4.6	44.0
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	5.0	25.0	12.0	58.0	5.0	25.0	5.0	65.0
Max Q Clear Time (g_c+I1), s	5.7	27.0	14.0	22.6	5.1	18.4	2.3	5.1
Green Ext Time (p_c), s	0.0	0.0	0.0	4.1	0.0	1.4	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	67.5
HCM 6th LOS	E

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	37	1485	24	15	532	30	43	25	31	9
Future Volume (vph)	37	1485	24	15	532	30	43	25	31	9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	NA
Protected Phases	7	4		3	8			2		6
Permitted Phases			4			8	2		6	
Detector Phase	7	4	4	3	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	16.2	9.6	23.2	23.2	15.8	15.8	15.2	15.2
Total Split (s)	14.0	87.0	87.0	12.0	85.0	85.0	21.0	21.0	21.0	21.0
Total Split (%)	11.7%	72.5%	72.5%	10.0%	70.8%	70.8%	17.5%	17.5%	17.5%	17.5%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	5.2	4.8	4.8	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	6.2	5.8	5.8	5.2	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 110.5
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 34: Chino Corona Rd. & Pine Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	1485	24	15	532	30	43	25	44	31	9	34
Future Volume (veh/h)	37	1485	24	15	532	30	43	25	44	31	9	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	41	1632	0	16	585	25	47	27	39	34	10	23
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	53	2529		28	1304	1105	161	61	88	133	44	102
Arrive On Green	0.03	0.74	0.00	0.02	0.72	0.72	0.09	0.09	0.09	0.09	0.09	0.09
Sat Flow, veh/h	1619	3420	1525	1619	1800	1525	1320	666	961	1281	485	1115
Grp Volume(v), veh/h	41	1632	0	16	585	25	47	0	66	34	0	33
Grp Sat Flow(s),veh/h/ln	1619	1710	1525	1619	1800	1525	1320	0	1627	1281	0	1599
Q Serve(g_s), s	2.7	26.0	0.0	1.1	14.5	0.5	3.7	0.0	4.2	2.8	0.0	2.1
Cycle Q Clear(g_c), s	2.7	26.0	0.0	1.1	14.5	0.5	5.8	0.0	4.2	7.0	0.0	2.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.59	1.00		0.70
Lane Grp Cap(c), veh/h	53	2529		28	1304	1105	161	0	148	133	0	146
V/C Ratio(X)	0.78	0.65		0.56	0.45	0.02	0.29	0.00	0.45	0.25	0.00	0.23
Avail Cap(c_a), veh/h	139	2529		110	1304	1105	224	0	226	202	0	231
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	52.5	7.1	0.0	53.3	6.1	4.2	48.8	0.0	47.0	50.4	0.0	46.1
Incr Delay (d2), s/veh	8.8	1.3	0.0	6.3	1.1	0.0	1.0	0.0	2.1	1.0	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	6.9	0.0	0.5	4.4	0.1	1.2	0.0	1.7	0.9	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.3	8.4	0.0	59.5	7.3	4.3	49.8	0.0	49.1	51.4	0.0	46.9
LnGrp LOS	E	A		E	A	A	D	A	D	D	A	D
Approach Vol, veh/h		1673	A		626			113			67	
Approach Delay, s/veh		9.7			8.5			49.4			49.1	
Approach LOS		A			A			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.8	6.5	87.0		15.8	8.2	85.4				
Change Period (Y+Rc), s		5.8	4.6	6.2		* 5.8	4.6	6.2				
Max Green Setting (Gmax), s		15.2	7.4	80.8		* 16	9.4	78.8				
Max Q Clear Time (g_c+I1), s		7.8	3.1	28.0		9.0	4.7	16.5				
Green Ext Time (p_c), s		0.2	0.0	17.5		0.1	0.0	3.8				

Intersection Summary	
HCM 6th Ctrl Delay	12.3
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

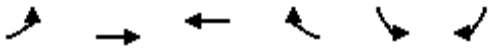
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	25	1535	552	114	24
Future Volume (vph)	25	1535	552	114	24
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	7	4	8	6	
Permitted Phases					6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	14.7	14.7
Total Split (s)	13.0	92.0	79.0	28.0	28.0
Total Split (%)	10.8%	76.7%	65.8%	23.3%	23.3%
Yellow Time (s)	3.6	4.8	4.8	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.7	4.7
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 69.6
Natural Cycle: 55
Control Type: Actuated-Uncoordinated

Splits and Phases: 36: Pine Av. & West Preserve Loop





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	25	1535	552	49	114	24
Future Volume (veh/h)	25	1535	552	49	114	24
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1700	1800
Adj Flow Rate, veh/h	26	1599	575	46	119	21
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	46	2396	1940	155	236	223
Arrive On Green	0.03	0.70	0.60	0.60	0.15	0.15
Sat Flow, veh/h	1619	3510	3298	256	1619	1525
Grp Volume(v), veh/h	26	1599	306	315	119	21
Grp Sat Flow(s),veh/h/ln	1619	1710	1710	1754	1619	1525
Q Serve(g_s), s	1.1	18.0	5.9	5.9	4.6	0.8
Cycle Q Clear(g_c), s	1.1	18.0	5.9	5.9	4.6	0.8
Prop In Lane	1.00			0.15	1.00	1.00
Lane Grp Cap(c), veh/h	46	2396	1034	1061	236	223
V/C Ratio(X)	0.56	0.67	0.30	0.30	0.50	0.09
Avail Cap(c_a), veh/h	199	4306	1828	1875	551	519
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.8	5.8	6.5	6.5	26.9	25.3
Incr Delay (d2), s/veh	10.3	0.5	0.2	0.2	1.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.0	1.5	1.5	1.8	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	43.2	6.2	6.7	6.7	28.6	25.5
LnGrp LOS	D	A	A	A	C	C
Approach Vol, veh/h		1625	621		140	
Approach Delay, s/veh		6.8	6.7		28.1	
Approach LOS		A	A		C	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			53.8		14.7	6.6	47.2
Change Period (Y+Rc), s			5.8		4.7	4.6	5.8
Max Green Setting (Gmax), s			86.2		23.3	8.4	73.2
Max Q Clear Time (g_c+I1), s			20.0		6.6	3.1	7.9
Green Ext Time (p_c), s			28.0		0.3	0.0	5.6

Intersection Summary	
HCM 6th Ctrl Delay	8.0
HCM 6th LOS	A

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1599	49	17	581	20	13
Future Volume (vph)	1599	49	17	581	20	13
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	35.8	35.8	9.6	15.8	10.1	10.1
Total Split (s)	94.0	94.0	13.0	107.0	13.0	13.0
Total Split (%)	78.3%	78.3%	10.8%	89.2%	10.8%	10.8%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.1	5.1
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 76
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 39: East Preserve Loop & Pine Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1599	49	17	581	20	13
Future Volume (veh/h)	1599	49	17	581	20	13
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1800	1800	1700	1800	1600	1800
Adj Flow Rate, veh/h	1666	51	18	605	21	5
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	2362	1054	33	2627	288	149
Arrive On Green	0.69	0.69	0.02	0.77	0.10	0.10
Sat Flow, veh/h	3510	1525	1619	3510	2956	1525
Grp Volume(v), veh/h	1666	51	18	605	21	5
Grp Sat Flow(s),veh/h/ln	1710	1525	1619	1710	1478	1525
Q Serve(g_s), s	23.8	0.9	0.9	4.0	0.5	0.2
Cycle Q Clear(g_c), s	23.8	0.9	0.9	4.0	0.5	0.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2362	1054	33	2627	288	149
V/C Ratio(X)	0.71	0.05	0.54	0.23	0.07	0.03
Avail Cap(c_a), veh/h	3723	1660	168	4271	288	149
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.6	4.0	39.3	2.6	33.2	33.1
Incr Delay (d2), s/veh	0.6	0.0	5.0	0.1	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	0.2	0.4	0.5	0.2	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.1	4.0	44.3	2.7	33.7	33.5
LnGrp LOS	A	A	D	A	C	C
Approach Vol, veh/h	1717			623	26	
Approach Delay, s/veh	8.0			3.9	33.7	
Approach LOS	A			A	C	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		13.0	6.3	61.8		68.0
Change Period (Y+Rc), s		5.1	4.6	5.8		5.8
Max Green Setting (Gmax), s		7.9	8.4	88.2		101.2
Max Q Clear Time (g_c+I1), s		2.5	2.9	25.8		6.0
Green Ext Time (p_c), s		0.0	0.0	30.2		6.1

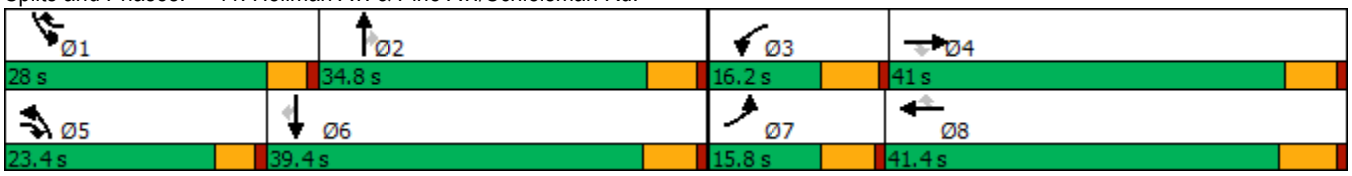
Intersection Summary	
HCM 6th Ctrl Delay	7.2
HCM 6th LOS	A

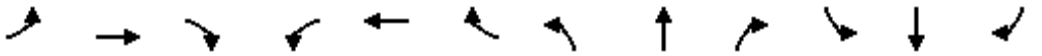
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	1155	423	36	467	131	143	125	56	380	300	33
Future Volume (vph)	21	1155	423	36	467	131	143	125	56	380	300	33
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	5	3	8	1	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	34.8	9.6	16.2	35.2	9.6	9.6	32.4	32.4	9.6	32.8	32.8
Total Split (s)	15.8	41.0	23.4	16.2	41.4	28.0	23.4	34.8	34.8	28.0	39.4	39.4
Total Split (%)	13.2%	34.2%	19.5%	13.5%	34.5%	23.3%	19.5%	29.0%	29.0%	23.3%	32.8%	32.8%
Yellow Time (s)	4.8	4.8	3.6	5.2	5.2	3.6	3.6	4.4	4.4	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	6.2	6.2	4.6	4.6	5.4	5.4	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 106.8
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 41: Hellman Av. & Pine Av./Schleisman Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	1155	423	36	467	131	143	125	56	380	300	33
Future Volume (veh/h)	21	1155	423	36	467	131	143	125	56	380	300	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1600	1800	1800	1600	1800	1800	1600	1800	1800	1600	1800	1800
Adj Flow Rate, veh/h	22	1229	261	38	497	78	152	133	33	404	319	16
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	261	1456	557	261	1473	694	204	887	395	459	1182	527
Arrive On Green	0.09	0.30	0.30	0.09	0.30	0.30	0.07	0.26	0.26	0.16	0.35	0.35
Sat Flow, veh/h	2956	4914	1525	2956	4914	1525	2956	3420	1525	2956	3420	1525
Grp Volume(v), veh/h	22	1229	261	38	497	78	152	133	33	404	319	16
Grp Sat Flow(s),veh/h/ln	1478	1638	1525	1478	1638	1525	1478	1710	1525	1478	1710	1525
Q Serve(g_s), s	0.8	26.6	14.9	1.3	8.9	3.3	5.7	3.4	1.9	15.2	7.6	0.8
Cycle Q Clear(g_c), s	0.8	26.6	14.9	1.3	8.9	3.3	5.7	3.4	1.9	15.2	7.6	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	261	1456	557	261	1473	694	204	887	395	459	1182	527
V/C Ratio(X)	0.08	0.84	0.47	0.15	0.34	0.11	0.75	0.15	0.08	0.88	0.27	0.03
Avail Cap(c_a), veh/h	261	1525	579	261	1525	710	490	887	395	610	1182	527
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.5	37.4	27.6	47.8	30.9	17.7	51.8	32.4	31.8	46.9	26.8	24.5
Incr Delay (d2), s/veh	0.2	4.6	0.9	0.4	0.2	0.1	2.0	0.4	0.4	9.3	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	10.7	5.2	0.5	3.4	1.1	2.1	1.4	0.7	5.9	3.1	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.7	42.0	28.4	48.1	31.1	17.8	53.8	32.7	32.2	56.2	27.4	24.7
LnGrp LOS	D	D	C	D	C	B	D	C	C	E	C	C
Approach Vol, veh/h		1512			613			318			739	
Approach Delay, s/veh		39.8			30.5			42.8			43.1	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.2	35.2	16.2	39.8	12.4	45.0	15.8	40.2
Change Period (Y+Rc), s	4.6	* 5.8	6.2	* 6.2	4.6	5.8	5.8	6.2
Max Green Setting (Gmax), s	23.4	* 29	10.0	* 35	18.8	33.6	10.0	35.2
Max Q Clear Time (g_c+I1), s	17.2	5.4	3.3	28.6	7.7	9.6	2.8	10.9
Green Ext Time (p_c), s	0.4	1.1	0.0	5.0	0.2	2.6	0.0	4.7

Intersection Summary	
HCM 6th Ctrl Delay	39.0
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	341	227	521	348	519	842
Future Volume (vph)	341	227	521	348	519	842
Turn Type	Prot	pm+ov	NA	pm+ov	Prot	NA
Protected Phases	8	1	2	8	1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	36.3	11.0	46.3	36.3	11.0	11.0
Total Split (s)	36.3	37.0	46.7	36.3	37.0	83.7
Total Split (%)	30.3%	30.8%	38.9%	30.3%	30.8%	69.8%
Yellow Time (s)	4.3	4.0	4.3	4.3	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.0	5.3	5.3	5.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 106.7
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 42: Archibald Av. & Limonite Av.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	341	227	521	348	519	842
Future Volume (veh/h)	341	227	521	348	519	842
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	348	182	532	334	530	859
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	383	838	617	852	559	1298
Arrive On Green	0.21	0.21	0.32	0.32	0.31	0.68
Sat Flow, veh/h	1810	1610	1900	1576	1810	1900
Grp Volume(v), veh/h	348	182	532	334	530	859
Grp Sat Flow(s),veh/h/ln	1810	1610	1900	1576	1810	1900
Q Serve(g_s), s	18.9	6.1	26.4	12.5	28.8	26.3
Cycle Q Clear(g_c), s	18.9	6.1	26.4	12.5	28.8	26.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	383	838	617	852	559	1298
V/C Ratio(X)	0.91	0.22	0.86	0.39	0.95	0.66
Avail Cap(c_a), veh/h	558	994	782	989	576	1487
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.7	13.0	31.9	13.7	34.0	9.2
Incr Delay (d2), s/veh	11.4	0.0	8.5	0.4	25.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	2.0	12.6	6.5	15.3	7.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	50.1	13.1	40.3	14.1	59.0	9.8
LnGrp LOS	D	B	D	B	E	A
Approach Vol, veh/h	530		866			1389
Approach Delay, s/veh	37.4		30.2			28.6
Approach LOS	D		C			C

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	36.1	37.9			74.0	26.6
Change Period (Y+Rc), s	5.0	5.3			* 5.3	5.3
Max Green Setting (Gmax), s	32.0	41.4			* 79	31.0
Max Q Clear Time (g_c+I1), s	30.8	28.4			28.3	20.9
Green Ext Time (p_c), s	0.3	4.2			3.5	0.4

Intersection Summary	
HCM 6th Ctrl Delay	30.8
HCM 6th LOS	C

Notes

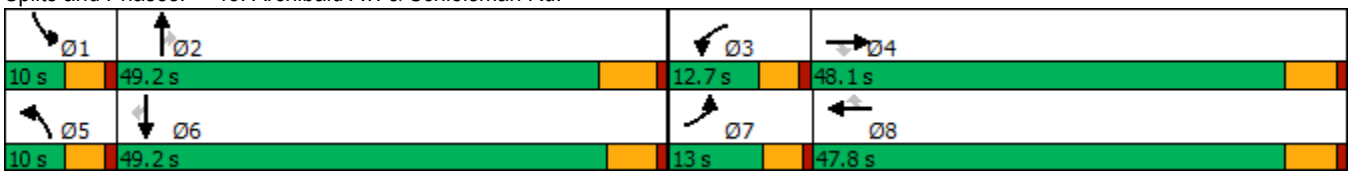
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

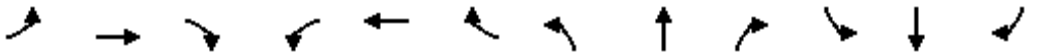
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	397	994	177	108	308	55	180	593	109	160	641	310
Future Volume (vph)	397	994	177	108	308	55	180	593	109	160	641	310
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	47.8	47.8	9.6	47.8	47.8	9.6	48.2	48.2	9.6	47.4	47.4
Total Split (s)	13.0	48.1	48.1	12.7	47.8	47.8	10.0	49.2	49.2	10.0	49.2	49.2
Total Split (%)	10.8%	40.1%	40.1%	10.6%	39.8%	39.8%	8.3%	41.0%	41.0%	8.3%	41.0%	41.0%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	5.2	5.2	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	6.2	6.2	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 99.5
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 43: Archibald Av. & Schleisman Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	397	994	177	108	308	55	180	593	109	160	641	310
Future Volume (veh/h)	397	994	177	108	308	55	180	593	109	160	641	310
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	405	1014	99	110	314	30	184	605	74	163	654	202
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	307	2466	765	173	2268	703	197	1029	320	197	1029	318
Arrive On Green	0.09	0.48	0.48	0.05	0.44	0.44	0.06	0.20	0.20	0.06	0.20	0.20
Sat Flow, veh/h	3510	5187	1610	3510	5187	1608	3510	5187	1610	3510	5187	1603
Grp Volume(v), veh/h	405	1014	99	110	314	30	184	605	74	163	654	202
Grp Sat Flow(s),veh/h/ln	1755	1729	1610	1755	1729	1608	1755	1729	1610	1755	1729	1603
Q Serve(g_s), s	8.4	12.2	3.3	3.0	3.5	1.0	5.0	10.2	3.7	4.4	11.1	11.1
Cycle Q Clear(g_c), s	8.4	12.2	3.3	3.0	3.5	1.0	5.0	10.2	3.7	4.4	11.1	11.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	307	2466	765	173	2268	703	197	1029	320	197	1029	318
V/C Ratio(X)	1.32	0.41	0.13	0.64	0.14	0.04	0.93	0.59	0.23	0.83	0.64	0.63
Avail Cap(c_a), veh/h	307	2466	765	296	2268	703	197	2322	721	197	2365	731
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.8	16.4	14.1	44.8	16.2	15.5	45.2	34.9	32.3	44.9	35.3	35.3
Incr Delay (d2), s/veh	164.9	0.5	0.3	1.4	0.1	0.1	44.7	0.5	0.4	22.8	0.7	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.5	4.5	1.2	1.3	1.3	0.4	3.3	4.1	1.4	2.5	4.5	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	208.7	16.9	14.4	46.3	16.3	15.6	89.8	35.5	32.7	67.7	36.0	37.4
LnGrp LOS	F	B	B	D	B	B	F	D	C	E	D	D
Approach Vol, veh/h		1518			454			863			1019	
Approach Delay, s/veh		67.9			23.5			46.8			41.3	
Approach LOS		E			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	25.3	9.3	51.5	10.0	25.3	13.0	47.8
Change Period (Y+Rc), s	4.6	6.2	4.6	5.8	4.6	* 6.2	4.6	5.8
Max Green Setting (Gmax), s	5.4	43.0	8.1	42.3	5.4	* 44	8.4	42.0
Max Q Clear Time (g_c+I1), s	6.4	12.2	5.0	14.2	7.0	13.1	10.4	5.5
Green Ext Time (p_c), s	0.0	4.1	0.0	7.7	0.0	5.0	0.0	2.1

Intersection Summary	
HCM 6th Ctrl Delay	50.9
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 6.2:

E+P (PROJECT BUILDOUT) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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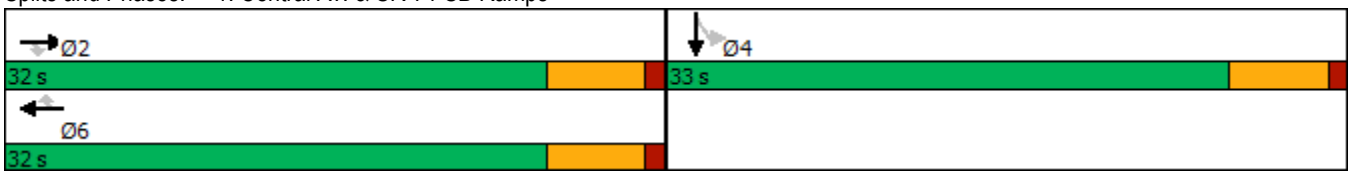
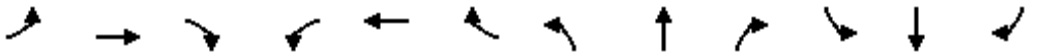
Lane Group	EBT	EBR	WBT	WBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1406	93	687	182	533	0
Future Volume (vph)	1406	93	687	182	533	0
Turn Type	NA	Perm	NA	Perm	Perm	NA
Protected Phases	2		6			4
Permitted Phases		2		6	4	
Detector Phase	2	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	22.8	22.8	15.8	15.8
Total Split (s)	32.0	32.0	32.0	32.0	33.0	33.0
Total Split (%)	49.2%	49.2%	49.2%	49.2%	50.8%	50.8%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max	Max	None	None

Intersection Summary
Cycle Length: 65
Actuated Cycle Length: 60.5
Natural Cycle: 50
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Central Av. & SR-71 SB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱↱				↰	✣	
Traffic Volume (veh/h)	0	1406	93	0	687	182	0	0	0	533	0	316
Future Volume (veh/h)	0	1406	93	0	687	182	0	0	0	533	0	316
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	0	1598	0	0	781	0				399	290	192
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2379		0	2379					612	361	239
Arrive On Green	0.00	0.46	0.00	0.00	0.46	0.00				0.34	0.34	0.34
Sat Flow, veh/h	0	5358	1610	0	5358	2834				1810	1067	706
Grp Volume(v), veh/h	0	1598	0	0	781	0				399	0	482
Grp Sat Flow(s),veh/h/ln	0	1729	1610	0	1729	1417				1810	0	1773
Q Serve(g_s), s	0.0	13.8	0.0	0.0	5.5	0.0				10.7	0.0	14.1
Cycle Q Clear(g_c), s	0.0	13.8	0.0	0.0	5.5	0.0				10.7	0.0	14.1
Prop In Lane	0.00		1.00	0.00		1.00				1.00		0.40
Lane Grp Cap(c), veh/h	0	2379		0	2379					612	0	600
V/C Ratio(X)	0.00	0.67		0.00	0.33					0.65	0.00	0.80
Avail Cap(c_a), veh/h	0	2379		0	2379					862	0	844
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	12.1	0.0	0.0	9.9	0.0				16.0	0.0	17.2
Incr Delay (d2), s/veh	0.0	1.5	0.0	0.0	0.4	0.0				1.2	0.0	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.2	0.0	0.0	1.6	0.0				3.7	0.0	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	13.6	0.0	0.0	10.2	0.0				17.2	0.0	21.0
LnGrp LOS	A	B		A	B					B	A	C
Approach Vol, veh/h		1598	A		781	A					881	
Approach Delay, s/veh		13.6			10.2						19.3	
Approach LOS		B			B						B	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	32.0	25.1	32.0
Change Period (Y+Rc), s	5.8	5.8	5.8
Max Green Setting (Gmax), s	26.2	27.2	26.2
Max Q Clear Time (g_c+I1), s	15.8	16.1	7.5
Green Ext Time (p_c), s	8.1	3.2	6.4

Intersection Summary	
HCM 6th Ctrl Delay	14.3
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

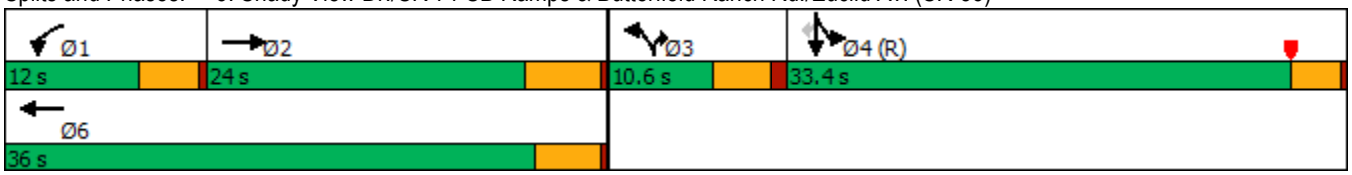
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

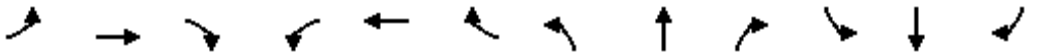
Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	687	195	275	19	288	628	26	40
Future Volume (vph)	687	195	275	19	288	628	26	40
Turn Type	NA	Prot	NA	Prot	Prot	Split	NA	Perm
Protected Phases	2	1	6	3	3	4	4	
Permitted Phases								4
Detector Phase	2	1	6	3	3	4	4	4
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	9.0	26.5	9.5	9.5	32.5	32.5	32.5
Total Split (s)	24.0	12.0	36.0	10.6	10.6	33.4	33.4	33.4
Total Split (%)	30.0%	15.0%	45.0%	13.3%	13.3%	41.8%	41.8%	41.8%
Yellow Time (s)	4.5	3.5	4.0	3.5	3.5	3.0	3.0	3.0
All-Red Time (s)	0.5	0.5	0.5	1.0	1.0	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	4.5	4.5	4.5	3.5	3.5	3.5
Lead/Lag	Lag	Lead		Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	None	None	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 4:SBTL, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 3: Shady View Dr./SR-71 SB Ramps & Butterfield Ranch Rd./Euclid Av. (SR-83)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	687	31	195	275	0	19	0	288	628	26	40
Future Volume (veh/h)	0	687	31	195	275	0	19	0	288	628	26	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	1900	0	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	701	23	199	281	0	19	0	225	660	0	25
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	793	26	181	1344		0	0	0	1887	0	840
Arrive On Green	0.00	0.22	0.22	0.03	0.12	0.00	0.00	0.00	0.00	0.52	0.00	0.52
Sat Flow, veh/h	0	3662	117	1810	3705	0		0		3619	0	1610
Grp Volume(v), veh/h	0	355	369	199	281	0		0.0		660	0	25
Grp Sat Flow(s),veh/h/ln	0	1805	1879	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	15.2	15.2	8.0	5.6	0.0				8.5	0.0	0.6
Cycle Q Clear(g_c), s	0.0	15.2	15.2	8.0	5.6	0.0				8.5	0.0	0.6
Prop In Lane	0.00		0.06	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	401	418	181	1344					1887	0	840
V/C Ratio(X)	0.00	0.88	0.88	1.10	0.21					0.35	0.00	0.03
Avail Cap(c_a), veh/h	0	429	446	181	1421					1887	0	840
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.95	0.95	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	30.1	30.1	38.7	24.5	0.0				11.2	0.0	9.3
Incr Delay (d2), s/veh	0.0	17.5	17.0	94.4	0.1	0.0				0.5	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.0	8.3	8.3	2.3	0.0				3.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	47.6	47.1	133.1	24.5	0.0				11.7	0.0	9.4
LnGrp LOS	A	D	D	F	C					B	A	A
Approach Vol, veh/h		724			480	A					685	
Approach Delay, s/veh		47.4			69.5						11.6	
Approach LOS		D			E						B	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	12.0	22.8		45.2		34.8						
Change Period (Y+Rc), s	4.0	5.0		3.5		* 5						
Max Green Setting (Gmax), s	8.0	19.0		29.9		* 32						
Max Q Clear Time (g_c+I1), s	10.0	17.2		10.5		7.6						
Green Ext Time (p_c), s	0.0	0.6		2.4		1.3						

Intersection Summary												
HCM 6th Ctrl Delay			40.0									
HCM 6th LOS			D									

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

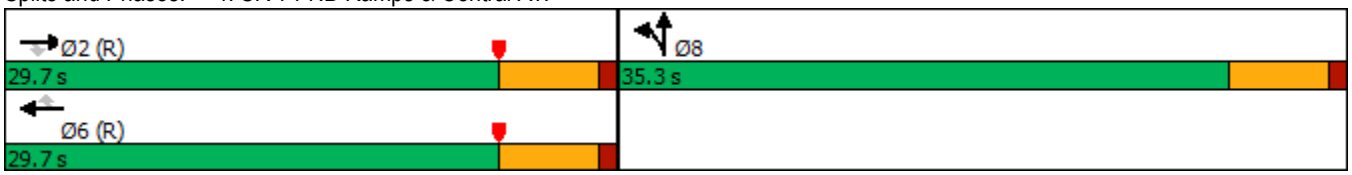
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	1161	778	804	991	65	0
Future Volume (vph)	1161	778	804	991	65	0
Turn Type	NA	Perm	NA	Perm	Split	NA
Protected Phases	2		6		8	8
Permitted Phases		2		6		
Detector Phase	2	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	15.8	15.8	22.8	22.8
Total Split (s)	29.7	29.7	29.7	29.7	35.3	35.3
Total Split (%)	45.7%	45.7%	45.7%	45.7%	54.3%	54.3%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 63.9 (98%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 4: SR-71 NB Ramps & Central Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰	↕				
Traffic Volume (veh/h)	0	1161	778	0	804	991	65	0	390	0	0	0
Future Volume (veh/h)	0	1161	778	0	804	991	65	0	390	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	0	1319	0	0	914	0	74	0	236			
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	0	3271		0	3271		346	0	308			
Arrive On Green	0.00	0.63	0.00	0.00	0.63	0.00	0.19	0.00	0.19			
Sat Flow, veh/h	0	5358	1610	0	5358	1610	1810	0	1610			
Grp Volume(v), veh/h	0	1319	0	0	914	0	74	0	236			
Grp Sat Flow(s),veh/h/ln	0	1729	1610	0	1729	1610	1810	0	1610			
Q Serve(g_s), s	0.0	8.2	0.0	0.0	5.1	0.0	2.2	0.0	9.0			
Cycle Q Clear(g_c), s	0.0	8.2	0.0	0.0	5.1	0.0	2.2	0.0	9.0			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3271		0	3271		346	0	308			
V/C Ratio(X)	0.00	0.40		0.00	0.28		0.21	0.00	0.77			
Avail Cap(c_a), veh/h	0	3271		0	3271		821	0	731			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.61	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	5.9	0.0	0.0	5.4	0.0	22.2	0.0	24.9			
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.2	0.0	0.3	0.0	4.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	1.9	0.0	0.0	1.2	0.0	0.9	0.0	3.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	6.2	0.0	0.0	5.6	0.0	22.5	0.0	28.9			
LnGrp LOS	A	A		A	A		C	A	C			
Approach Vol, veh/h		1319	A		914	A		310				
Approach Delay, s/veh		6.2			5.6			27.4				
Approach LOS		A			A			C				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		46.8				46.8		18.2				
Change Period (Y+Rc), s		5.8				5.8		5.8				
Max Green Setting (Gmax), s		23.9				23.9		29.5				
Max Q Clear Time (g_c+I1), s		10.2				7.1		11.0				
Green Ext Time (p_c), s		7.1				5.4		1.4				

Intersection Summary	
HCM 6th Ctrl Delay	8.6
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

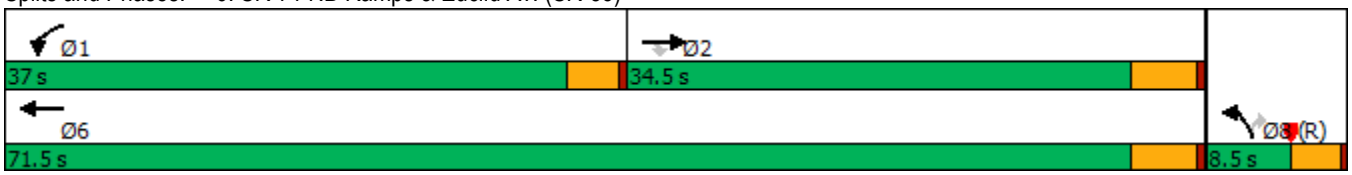
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	659	289	740	931	43	672
Future Volume (vph)	659	289	740	931	43	672
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	32.5	32.5	8.5	9.5	8.5	8.5
Total Split (s)	34.5	34.5	37.0	71.5	8.5	8.5
Total Split (%)	43.1%	43.1%	46.3%	89.4%	10.6%	10.6%
Yellow Time (s)	4.0	4.0	3.0	4.0	3.0	3.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	3.5	4.5	3.5	3.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 9.5 (12%), Referenced to phase 4: and 8:NBL, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 6: SR-71 NB Ramps & Euclid Av. (SR-83)





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	659	289	740	931	43	672
Future Volume (veh/h)	659	289	740	931	43	672
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	701	0	787	990	46	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	910		758	2580	651	
Arrive On Green	0.08	0.00	0.42	0.71	0.19	0.00
Sat Flow, veh/h	3705	1610	1810	3705	3510	1610
Grp Volume(v), veh/h	701	0	787	990	46	0
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805	1755	1610
Q Serve(g_s), s	15.2	0.0	33.5	8.6	0.9	0.0
Cycle Q Clear(g_c), s	15.2	0.0	33.5	8.6	0.9	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	910		758	2580	651	
V/C Ratio(X)	0.77		1.04	0.38	0.07	
Avail Cap(c_a), veh/h	1354		758	3023	651	
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.45	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	34.4	0.0	23.3	4.5	26.9	0.0
Incr Delay (d2), s/veh	0.6	0.0	43.1	0.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	0.0	20.7	1.6	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	35.0	0.0	66.4	4.6	27.1	0.0
LnGrp LOS	C		F	A	C	
Approach Vol, veh/h	701	A		1777	46	A
Approach Delay, s/veh	35.0			31.9	27.1	
Approach LOS	C			C	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	37.0	24.7				61.7	18.3
Change Period (Y+Rc), s	3.5	4.5				4.5	3.5
Max Green Setting (Gmax), s	33.5	30.0				67.0	5.0
Max Q Clear Time (g_c+I1), s	35.5	17.2				10.6	2.9
Green Ext Time (p_c), s	0.0	3.0				7.3	0.0

Intersection Summary		
HCM 6th Ctrl Delay	32.7	
HCM 6th LOS	C	

Notes

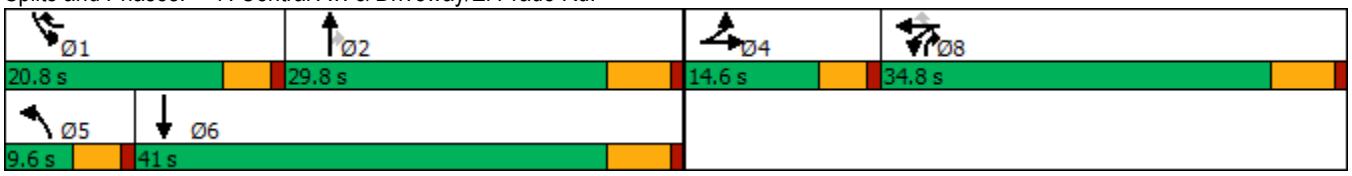
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

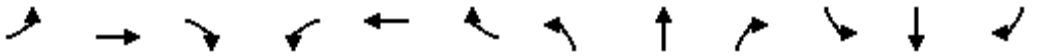
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	2	6	773	4	516	2	811	565	266	695
Future Volume (vph)	2	6	773	4	516	2	811	565	266	695
Turn Type	Split	NA	Split	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	4	4	8	8	1	5	2	8	1	6
Permitted Phases					8			2		
Detector Phase	4	4	8	8	1	5	2	8	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	34.8	34.8	9.6	9.6	27.8	34.8	9.6	24.8
Total Split (s)	14.6	14.6	34.8	34.8	20.8	9.6	29.8	34.8	20.8	41.0
Total Split (%)	14.6%	14.6%	34.8%	34.8%	20.8%	9.6%	29.8%	34.8%	20.8%	41.0%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	5.8	4.6	4.6	5.8	5.8	4.6	5.8
Lead/Lag					Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	None	Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 85.8
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Central Av. & Driveway/El Prado Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	6	1	773	4	516	2	811	565	266	695	11
Future Volume (veh/h)	2	6	1	773	4	516	2	811	565	266	695	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	2	6	0	792	0	310	2	828	403	271	709	8
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	33	36	0	890	0	704	4	950	833	302	2311	26
Arrive On Green	0.02	0.02	0.00	0.27	0.00	0.27	0.00	0.28	0.28	0.19	0.46	0.46
Sat Flow, veh/h	1619	1800	0	3238	0	1525	1619	3420	1490	1619	5008	56
Grp Volume(v), veh/h	2	6	0	792	0	310	2	828	403	271	464	253
Grp Sat Flow(s),veh/h/ln	1619	1800	0	1619	0	1525	1619	1710	1490	1619	1638	1788
Q Serve(g_s), s	0.1	0.3	0.0	20.3	0.0	11.9	0.1	19.9	14.3	14.1	7.7	7.7
Cycle Q Clear(g_c), s	0.1	0.3	0.0	20.3	0.0	11.9	0.1	19.9	14.3	14.1	7.7	7.7
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	33	36	0	890	0	704	4	950	833	302	1512	825
V/C Ratio(X)	0.06	0.16	0.00	0.89	0.00	0.44	0.46	0.87	0.48	0.90	0.31	0.31
Avail Cap(c_a), veh/h	187	208	0	1087	0	796	94	950	833	304	1512	825
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.5	41.6	0.0	30.1	0.0	15.7	43.0	29.7	11.9	34.3	14.6	14.6
Incr Delay (d2), s/veh	0.3	0.8	0.0	7.1	0.0	0.2	25.0	10.8	2.0	26.6	0.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.0	8.0	0.0	3.6	0.1	9.0	8.1	7.4	2.6	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.8	42.4	0.0	37.2	0.0	15.9	68.0	40.6	13.9	61.0	15.1	15.6
LnGrp LOS	D	D	A	D	A	B	E	D	B	E	B	B
Approach Vol, veh/h		8			1102			1233			988	
Approach Delay, s/veh		42.3			31.2			31.9			27.8	
Approach LOS		D			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.7	29.8		6.3	4.8	45.7		29.6				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		5.8				
Max Green Setting (Gmax), s	16.2	24.0		10.0	5.0	35.2		29.0				
Max Q Clear Time (g_c+I1), s	16.1	21.9		2.3	2.1	9.7		22.3				
Green Ext Time (p_c), s	0.0	1.3		0.0	0.0	4.3		1.5				

Intersection Summary		
HCM 6th Ctrl Delay		30.5
HCM 6th LOS		C

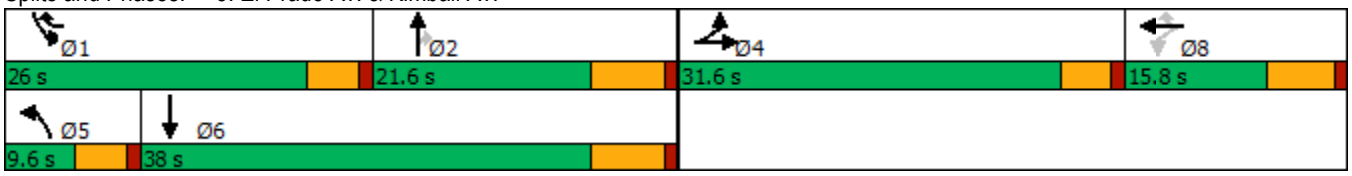
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	22	4	31	16	777	6	278	30	448	247
Future Volume (vph)	22	4	31	16	777	6	278	30	448	247
Turn Type	Split	NA	Perm	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	4	4		8	1	5	2		1	6
Permitted Phases			8		8			2		
Detector Phase	4	4	8	8	1	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	15.8	15.8	9.6	9.6	16.2	16.2	9.6	24.2
Total Split (s)	31.6	31.6	15.8	15.8	26.0	9.6	21.6	21.6	26.0	38.0
Total Split (%)	33.3%	33.3%	16.6%	16.6%	27.4%	10.1%	22.7%	22.7%	27.4%	40.0%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		5.8	4.6	4.6	6.2	6.2	4.6	6.2
Lead/Lag					Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary
Cycle Length: 95
Actuated Cycle Length: 66.3
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: El Prado Av. & Kimball Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	4	3	31	16	777	6	278	30	448	247	38
Future Volume (veh/h)	22	4	3	31	16	777	6	278	30	448	247	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	23	4	2	33	17	421	6	293	32	472	260	37
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	99	69	35	159	82	661	13	383	324	478	1502	211
Arrive On Green	0.06	0.06	0.06	0.14	0.14	0.14	0.01	0.21	0.21	0.30	0.50	0.50
Sat Flow, veh/h	1619	1132	566	1150	592	1525	1619	1800	1525	1619	3002	422
Grp Volume(v), veh/h	23	0	6	50	0	421	6	293	32	472	147	150
Grp Sat Flow(s),veh/h/ln	1619	0	1698	1742	0	1525	1619	1800	1525	1619	1710	1714
Q Serve(g_s), s	1.0	0.0	0.2	1.8	0.0	10.0	0.3	11.1	1.2	21.0	3.4	3.5
Cycle Q Clear(g_c), s	1.0	0.0	0.2	1.8	0.0	10.0	0.3	11.1	1.2	21.0	3.4	3.5
Prop In Lane	1.00		0.33	0.66		1.00	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	99	0	104	241	0	661	13	383	324	478	856	857
V/C Ratio(X)	0.23	0.00	0.06	0.21	0.00	0.64	0.47	0.77	0.10	0.99	0.17	0.18
Avail Cap(c_a), veh/h	604	0	633	241	0	661	112	383	324	478	856	857
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.4	0.0	32.0	27.7	0.0	16.0	35.8	26.8	22.9	25.4	9.9	9.9
Incr Delay (d2), s/veh	1.2	0.0	0.2	0.4	0.0	2.0	9.8	13.6	0.6	37.5	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.1	0.7	0.0	4.9	0.1	5.7	0.4	11.9	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.6	0.0	32.3	28.1	0.0	18.1	45.5	40.4	23.5	62.8	10.3	10.4
LnGrp LOS	C	A	C	C	A	B	D	D	C	E	B	B
Approach Vol, veh/h		29			471			331			769	
Approach Delay, s/veh		33.3			19.1			38.9			42.6	
Approach LOS		C			B			D			D	

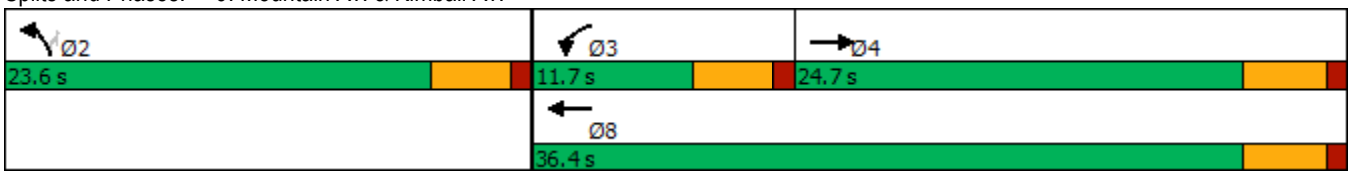
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	26.0	21.6		9.0	5.2	42.4		15.8				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		5.8				
Max Green Setting (Gmax), s	21.4	15.4		27.0	5.0	31.8		10.0				
Max Q Clear Time (g_c+I1), s	23.0	13.1		3.0	2.3	5.5		12.0				
Green Ext Time (p_c), s	0.0	0.4		0.1	0.0	1.5		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		34.7
HCM 6th LOS		C

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	320	70	716	94	22
Future Volume (vph)	320	70	716	94	22
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	4	3	8	2	
Permitted Phases					2
Detector Phase	4	3	8	2	2
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	24.7	9.6	14.7	23.6	23.6
Total Split (s)	24.7	11.7	36.4	23.6	23.6
Total Split (%)	41.2%	19.5%	60.7%	39.3%	39.3%
Yellow Time (s)	3.7	3.6	3.7	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.6	4.7	4.6	4.6
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	Max	None	Max	None	None

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 52.9
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 9: Mountain Av. & Kimball Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	320	145	70	716	94	22
Future Volume (veh/h)	320	145	70	716	94	22
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1800	1800	1700	1800	1700	1800
Adj Flow Rate, veh/h	337	142	74	754	99	21
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1143	472	105	2210	266	250
Arrive On Green	0.49	0.49	0.06	0.65	0.16	0.16
Sat Flow, veh/h	2434	967	1619	3510	1619	1525
Grp Volume(v), veh/h	244	235	74	754	99	21
Grp Sat Flow(s),veh/h/ln	1710	1602	1619	1710	1619	1525
Q Serve(g_s), s	4.2	4.3	2.2	4.9	2.7	0.6
Cycle Q Clear(g_c), s	4.2	4.3	2.2	4.9	2.7	0.6
Prop In Lane		0.60	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	834	781	105	2210	266	250
V/C Ratio(X)	0.29	0.30	0.71	0.34	0.37	0.08
Avail Cap(c_a), veh/h	834	781	234	2210	627	591
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.5	7.5	22.5	3.9	18.3	17.4
Incr Delay (d2), s/veh	0.9	1.0	3.2	0.4	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.2	0.8	0.7	0.9	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.4	8.5	25.7	4.4	19.1	17.5
LnGrp LOS	A	A	C	A	B	B
Approach Vol, veh/h	479			828	120	
Approach Delay, s/veh	8.5			6.3	18.8	
Approach LOS	A			A	B	

Timer - Assigned Phs	2	3	4	8
Phs Duration (G+Y+Rc), s	12.7	7.8	28.6	36.4
Change Period (Y+Rc), s	4.6	4.6	* 4.7	* 4.7
Max Green Setting (Gmax), s	19.0	7.1	* 20	* 32
Max Q Clear Time (g_c+I1), s	4.7	4.2	6.3	6.9
Green Ext Time (p_c), s	0.2	0.0	2.2	5.0

Intersection Summary	
HCM 6th Ctrl Delay	8.1
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	7.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	126	176	30	26	37	71
Future Vol, veh/h	126	176	30	26	37	71
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	154	215	37	32	45	87

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	230	53	0	0	69	0
Stage 1	53	-	-	-	-	-
Stage 2	177	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	763	1020	-	-	1545	-
Stage 1	975	-	-	-	-	-
Stage 2	859	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	741	1020	-	-	1545	-
Mov Cap-2 Maneuver	737	-	-	-	-	-
Stage 1	975	-	-	-	-	-
Stage 2	834	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.2	0	2.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	737	1020	1545	-
HCM Lane V/C Ratio	-	-	0.208	0.21	0.029	-
HCM Control Delay (s)	-	-	11.2	9.5	7.4	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.8	0.8	0.1	-

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	10	47	0	33	164
Future Vol, veh/h	0	10	47	0	33	164
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	11	51	0	36	178

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	301	51	0	0	51	0
Stage 1	51	-	-	-	-	-
Stage 2	250	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	695	1023	-	-	1568	-
Stage 1	977	-	-	-	-	-
Stage 2	796	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	679	1023	-	-	1568	-
Mov Cap-2 Maneuver	688	-	-	-	-	-
Stage 1	977	-	-	-	-	-
Stage 2	778	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.6	0	1.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1023	1568	-
HCM Lane V/C Ratio	-	-	0.011	0.023	-
HCM Control Delay (s)	-	-	8.6	7.3	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0.1	-

Intersection	
Int Delay, s/veh	4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	26	21	24	90	74
Future Vol, veh/h	7	26	21	24	90	74
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	28	23	26	98	80

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	312	36	0	0	49	0
Stage 1	36	-	-	-	-	-
Stage 2	276	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	685	1042	-	-	1571	-
Stage 1	992	-	-	-	-	-
Stage 2	775	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	643	1042	-	-	1571	-
Mov Cap-2 Maneuver	649	-	-	-	-	-
Stage 1	992	-	-	-	-	-
Stage 2	727	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.1	0	4.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	923	1571	-
HCM Lane V/C Ratio	-	-	0.039	0.062	-
HCM Control Delay (s)	-	-	9.1	7.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.2	-

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	5	40	25	16	65
Future Vol, veh/h	7	5	40	25	16	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	5	43	27	17	71

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	162	57	0	0	70	0
Stage 1	57	-	-	-	-	-
Stage 2	105	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	834	1015	-	-	1544	-
Stage 1	971	-	-	-	-	-
Stage 2	924	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	825	1015	-	-	1544	-
Mov Cap-2 Maneuver	804	-	-	-	-	-
Stage 1	971	-	-	-	-	-
Stage 2	914	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	1.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	880	1544	-
HCM Lane V/C Ratio	-	-	0.015	0.011	-
HCM Control Delay (s)	-	-	9.2	7.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	18	55	259	41	24	112
Future Vol, veh/h	18	55	259	41	24	112
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	20	60	282	45	26	122

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	479	305	0	0	327	0
Stage 1	305	-	-	-	-	-
Stage 2	174	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	549	740	-	-	1244	-
Stage 1	752	-	-	-	-	-
Stage 2	861	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	537	740	-	-	1244	-
Mov Cap-2 Maneuver	537	-	-	-	-	-
Stage 1	752	-	-	-	-	-
Stage 2	842	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11	0	1.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	677	1244	-
HCM Lane V/C Ratio	-	-	0.117	0.021	-
HCM Control Delay (s)	-	-	11	8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1	-

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	357	240	0
Future Vol, veh/h	0	0	0	357	240	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	392	264	0
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	0	10	10.7
HCM LOS	-	A	B

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	100%
Vol Thru, %	100%	0%	0%
Vol Right, %	0%	100%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	0	357	240
LT Vol	0	0	240
Through Vol	0	0	0
RT Vol	0	357	0
Lane Flow Rate	0	392	264
Geometry Grp	1	1	1
Degree of Util (X)	0	0.434	0.359
Departure Headway (Hd)	4.994	3.986	4.905
Convergence, Y/N	Yes	Yes	Yes
Cap	0	906	731
Service Time	3.036	2.002	2.955
HCM Lane V/C Ratio	0	0.433	0.361
HCM Control Delay	8	10	10.7
HCM Lane LOS	N	A	B
HCM 95th-tile Q	0	2.2	1.6

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	63	0	41	302	0	12
Future Vol, veh/h	63	0	41	302	0	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	68	0	45	328	0	13

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	68	0	486	68
Stage 1	-	-	-	-	68	-
Stage 2	-	-	-	-	418	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1546	-	544	1001
Stage 1	-	-	-	-	960	-
Stage 2	-	-	-	-	669	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1546	-	528	1001
Mov Cap-2 Maneuver	-	-	-	-	569	-
Stage 1	-	-	-	-	960	-
Stage 2	-	-	-	-	650	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1001	-	-	1546	-
HCM Lane V/C Ratio	0.013	-	-	0.029	-
HCM Control Delay (s)	8.6	-	-	7.4	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	76	0	8	343	0	2
Future Vol, veh/h	76	0	8	343	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	83	0	9	373	0	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	83	0	474	83
Stage 1	-	-	-	-	83	-
Stage 2	-	-	-	-	391	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1527	-	553	982
Stage 1	-	-	-	-	945	-
Stage 2	-	-	-	-	688	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1527	-	550	982
Mov Cap-2 Maneuver	-	-	-	-	593	-
Stage 1	-	-	-	-	945	-
Stage 2	-	-	-	-	684	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	982	-	-	1527	-
HCM Lane V/C Ratio	0.002	-	-	0.006	-
HCM Control Delay (s)	8.7	-	-	7.4	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	78	0	8	351	0	2
Future Vol, veh/h	78	0	8	351	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	85	0	9	382	0	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	85	0	485	85
Stage 1	-	-	-	-	85	-
Stage 2	-	-	-	-	400	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1524	-	545	980
Stage 1	-	-	-	-	943	-
Stage 2	-	-	-	-	681	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1524	-	542	980
Mov Cap-2 Maneuver	-	-	-	-	587	-
Stage 1	-	-	-	-	943	-
Stage 2	-	-	-	-	677	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	8.7
HCM LOS			A

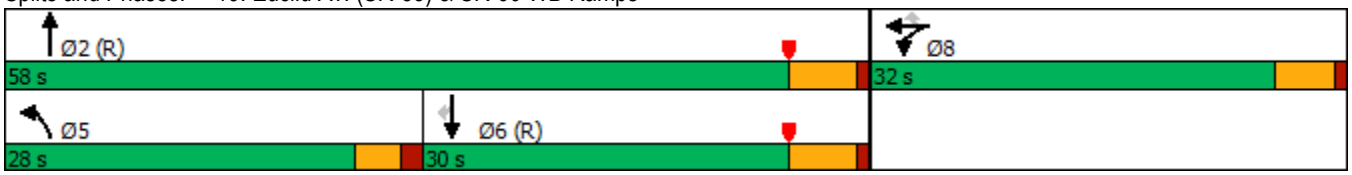
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	980	-	-	1524	-
HCM Lane V/C Ratio	0.002	-	-	0.006	-
HCM Control Delay (s)	8.7	-	-	7.4	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

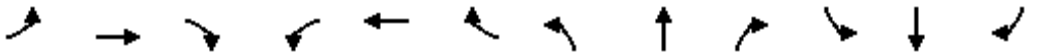
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	618	6	408	336	903	952	470
Future Volume (vph)	618	6	408	336	903	952	470
Turn Type	Split	NA	Perm	Prot	NA	NA	Perm
Protected Phases	8	8		5	2	6	
Permitted Phases			8				6
Detector Phase	8	8	8	5	2	6	6
Switch Phase							
Minimum Initial (s)	6.0	6.0	6.0	5.0	10.0	10.0	10.0
Minimum Split (s)	11.0	11.0	11.0	9.5	22.5	22.5	22.5
Total Split (s)	32.0	32.0	32.0	28.0	58.0	30.0	30.0
Total Split (%)	35.6%	35.6%	35.6%	31.1%	64.4%	33.3%	33.3%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.5	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.5	5.5	5.5	5.5
Lead/Lag				Lead		Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 63 (70%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 19: Euclid Av. (SR-83) & SR-60 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	618	6	408	336	903	0	0	952	470
Future Volume (veh/h)	0	0	0	618	6	408	336	903	0	0	952	470
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				726	0	145	357	961	0	0	1013	272
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				830	0	369	384	2361	0	0	1414	630
Arrive On Green				0.23	0.00	0.23	0.42	1.00	0.00	0.00	0.39	0.39
Sat Flow, veh/h				3619	0	1610	1810	3705	0	0	3705	1610
Grp Volume(v), veh/h				726	0	145	357	961	0	0	1013	272
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1810	1805	0	0	1805	1610
Q Serve(g_s), s				17.4	0.0	6.9	16.9	0.0	0.0	0.0	21.4	11.1
Cycle Q Clear(g_c), s				17.4	0.0	6.9	16.9	0.0	0.0	0.0	21.4	11.1
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				830	0	369	384	2361	0	0	1414	630
V/C Ratio(X)				0.87	0.00	0.39	0.93	0.41	0.00	0.00	0.72	0.43
Avail Cap(c_a), veh/h				1086	0	483	472	2361	0	0	1414	630
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.57	0.57	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				33.4	0.0	29.4	25.2	0.0	0.0	0.0	23.2	20.0
Incr Delay (d2), s/veh				5.4	0.0	0.3	13.5	0.3	0.0	0.0	3.1	2.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.8	0.0	2.5	6.4	0.1	0.0	0.0	9.0	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				38.8	0.0	29.6	38.7	0.3	0.0	0.0	26.3	22.2
LnGrp LOS				D	A	C	D	A	A	A	C	C
Approach Vol, veh/h					871			1318			1285	
Approach Delay, s/veh					37.3			10.7			25.4	
Approach LOS					D			B			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	64.4		23.6	40.7		25.6						
Change Period (Y+Rc), s	5.5		4.5	5.5		5.0						
Max Green Setting (Gmax), s	52.5		23.5	24.5		27.0						
Max Q Clear Time (g_c+I1), s	2.0		18.9	23.4		19.4						
Green Ext Time (p_c), s	12.0		0.3	0.9		1.2						

Intersection Summary		
HCM 6th Ctrl Delay		22.8
HCM 6th LOS		C

Notes

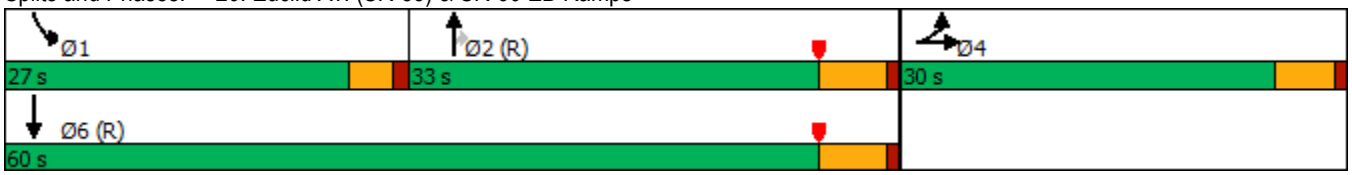
User approved volume balancing among the lanes for turning movement.

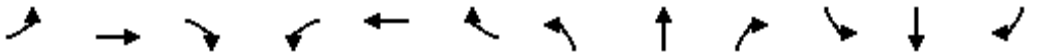
Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	404	2	837	664	363	1207
Future Volume (vph)	404	2	837	664	363	1207
Turn Type	Split	NA	NA	Perm	Prot	NA
Protected Phases	4	4	2		1	6
Permitted Phases				2		
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	6.0	6.0	10.0	10.0	5.0	10.0
Minimum Split (s)	11.0	11.0	22.5	22.5	9.0	22.5
Total Split (s)	30.0	30.0	33.0	33.0	27.0	60.0
Total Split (%)	33.3%	33.3%	36.7%	36.7%	30.0%	66.7%
Yellow Time (s)	4.0	4.0	4.5	4.5	3.0	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.5	5.5	4.0	5.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Min	C-Min	None	C-Min

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 20: Euclid Av. (SR-83) & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	404	2	300	0	0	0	0	837	664	363	1207	0
Future Volume (veh/h)	404	2	300	0	0	0	0	837	664	363	1207	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	344	115	261				0	881	500	382	1271	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	447	128	289				0	1312	570	414	2298	0
Arrive On Green	0.25	0.25	0.25				0.00	0.36	0.36	0.30	0.85	0.00
Sat Flow, veh/h	1810	517	1172				0	3705	1568	1810	3705	0
Grp Volume(v), veh/h	344	0	376				0	881	500	382	1271	0
Grp Sat Flow(s),veh/h/ln	1810	0	1689				0	1805	1568	1810	1805	0
Q Serve(g_s), s	15.9	0.0	19.4				0.0	18.5	26.8	18.4	9.1	0.0
Cycle Q Clear(g_c), s	15.9	0.0	19.4				0.0	18.5	26.8	18.4	9.1	0.0
Prop In Lane	1.00		0.69				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	447	0	417				0	1312	570	414	2298	0
V/C Ratio(X)	0.77	0.00	0.90				0.00	0.67	0.88	0.92	0.55	0.00
Avail Cap(c_a), veh/h	503	0	469				0	1312	570	462	2298	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.79	0.79	0.44	0.44	0.00
Uniform Delay (d), s/veh	31.5	0.0	32.8				0.0	24.1	26.8	30.6	3.2	0.0
Incr Delay (d2), s/veh	5.4	0.0	17.9				0.0	2.2	14.2	11.7	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	0.0	9.5				0.0	7.7	11.5	8.2	1.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.9	0.0	50.7				0.0	26.3	41.0	42.3	3.6	0.0
LnGrp LOS	D	A	D				A	C	D	D	A	A
Approach Vol, veh/h		720						1381			1653	
Approach Delay, s/veh		44.1						31.6			12.6	
Approach LOS		D						C			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	24.6	38.2		27.2		62.8
Change Period (Y+Rc), s	4.0	5.5		5.0		5.5
Max Green Setting (Gmax), s	23.0	27.5		25.0		54.5
Max Q Clear Time (g_c+I1), s	20.4	28.8		21.4		11.1
Green Ext Time (p_c), s	0.2	0.0		0.8		17.5

Intersection Summary		
HCM 6th Ctrl Delay		25.6
HCM 6th LOS		C

Notes

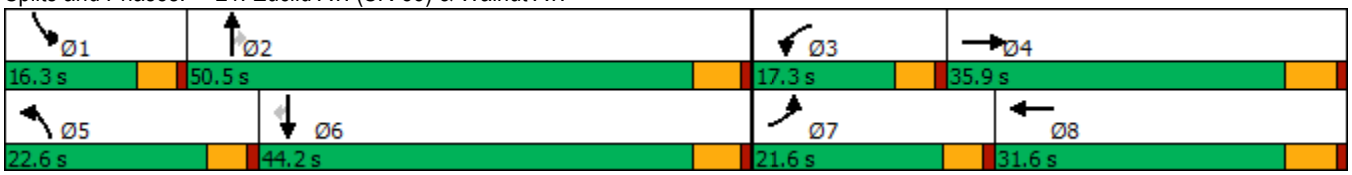
User approved volume balancing among the lanes for turning movement.

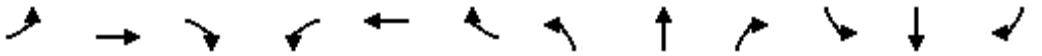
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	113	289	71	307	125	1135	45	150	1172	59
Future Volume (vph)	113	289	71	307	125	1135	45	150	1172	59
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.8	9.6	29.8	9.6	27.4	27.4	9.6	29.4	29.4
Total Split (s)	21.6	35.9	17.3	31.6	22.6	50.5	50.5	16.3	44.2	44.2
Total Split (%)	18.0%	29.9%	14.4%	26.3%	18.8%	42.1%	42.1%	13.6%	36.8%	36.8%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 107.4
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 21: Euclid Av. (SR-83) & Walnut Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	289	111	71	307	204	125	1135	45	150	1172	59
Future Volume (veh/h)	113	289	111	71	307	204	125	1135	45	150	1172	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1600	1800	1800
Adj Flow Rate, veh/h	119	304	81	75	323	175	132	1195	29	158	1234	41
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	145	586	153	94	403	213	159	2204	684	214	2076	644
Arrive On Green	0.09	0.22	0.22	0.06	0.19	0.19	0.10	0.45	0.45	0.07	0.42	0.42
Sat Flow, veh/h	1619	2681	703	1619	2157	1143	1619	4914	1524	2956	4914	1524
Grp Volume(v), veh/h	119	192	193	75	255	243	132	1195	29	158	1234	41
Grp Sat Flow(s),veh/h/ln	1619	1710	1674	1619	1710	1590	1619	1638	1524	1478	1638	1524
Q Serve(g_s), s	7.3	9.9	10.2	4.6	14.3	14.8	8.0	17.8	1.1	5.3	19.5	1.6
Cycle Q Clear(g_c), s	7.3	9.9	10.2	4.6	14.3	14.8	8.0	17.8	1.1	5.3	19.5	1.6
Prop In Lane	1.00		0.42	1.00		0.72	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	145	373	366	94	319	297	159	2204	684	214	2076	644
V/C Ratio(X)	0.82	0.51	0.53	0.80	0.80	0.82	0.83	0.54	0.04	0.74	0.59	0.06
Avail Cap(c_a), veh/h	274	512	501	204	439	408	290	2204	684	344	2076	644
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.0	34.6	34.7	46.8	39.1	39.3	44.5	20.2	15.6	45.7	22.4	17.2
Incr Delay (d2), s/veh	4.3	1.1	1.2	5.8	7.0	9.1	4.2	1.0	0.1	1.9	1.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	4.1	4.1	1.9	6.3	6.3	3.3	6.5	0.4	1.9	7.3	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.3	35.7	35.9	52.6	46.1	48.4	48.7	21.2	15.7	47.6	23.6	17.4
LnGrp LOS	D	D	D	D	D	D	D	C	B	D	C	B
Approach Vol, veh/h		504			573			1356			1433	
Approach Delay, s/veh		39.0			47.9			23.7			26.1	
Approach LOS		D			D			C			C	

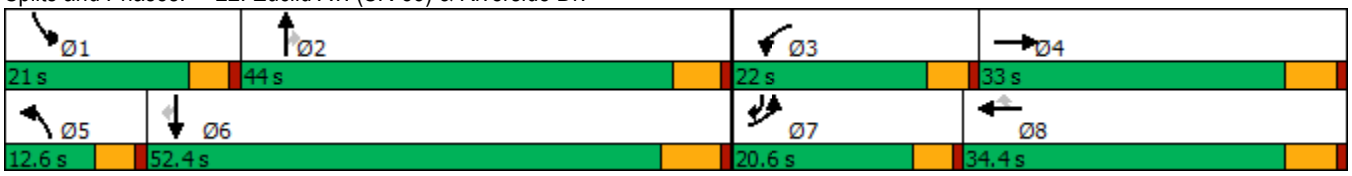
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	50.5	10.4	27.8	14.5	47.9	13.6	24.6
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	11.7	45.1	12.7	30.1	18.0	38.8	17.0	25.8
Max Q Clear Time (g_c+I1), s	7.3	19.8	6.6	12.2	10.0	21.5	9.3	16.8
Green Ext Time (p_c), s	0.1	9.1	0.0	1.9	0.1	8.0	0.1	1.8

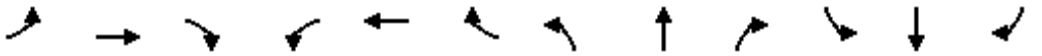
Intersection Summary	
HCM 6th Ctrl Delay	30.2
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	153	311	189	488	115	67	922	155	174	986	152
Future Volume (vph)	153	311	189	488	115	67	922	155	174	986	152
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4	3	8		5	2		1	6	7
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	25.8	9.6	31.8	31.8	9.6	30.4	30.4	9.6	34.5	9.6
Total Split (s)	20.6	33.0	22.0	34.4	34.4	12.6	44.0	44.0	21.0	52.4	20.6
Total Split (%)	17.2%	27.5%	18.3%	28.7%	28.7%	10.5%	36.7%	36.7%	17.5%	43.7%	17.2%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 117.5
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Euclid Av. (SR-83) & Riverside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	311	52	189	488	115	67	922	155	174	986	152
Future Volume (veh/h)	153	311	52	189	488	115	67	922	155	174	986	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	161	327	39	199	514	92	71	971	123	183	1038	101
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	186	351	42	223	841	375	88	1123	501	207	1375	788
Arrive On Green	0.11	0.22	0.22	0.14	0.25	0.25	0.05	0.33	0.33	0.13	0.40	0.40
Sat Flow, veh/h	1619	1578	188	1619	3420	1525	1619	3420	1525	1619	3420	1524
Grp Volume(v), veh/h	161	0	366	199	514	92	71	971	123	183	1038	101
Grp Sat Flow(s),veh/h/ln	1619	0	1766	1619	1710	1525	1619	1710	1525	1619	1710	1524
Q Serve(g_s), s	11.5	0.0	23.9	14.2	15.7	5.7	5.1	31.3	6.9	13.1	30.6	4.0
Cycle Q Clear(g_c), s	11.5	0.0	23.9	14.2	15.7	5.7	5.1	31.3	6.9	13.1	30.6	4.0
Prop In Lane	1.00		0.11	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	186	0	393	223	841	375	88	1123	501	207	1375	788
V/C Ratio(X)	0.87	0.00	0.93	0.89	0.61	0.25	0.81	0.86	0.25	0.88	0.75	0.13
Avail Cap(c_a), veh/h	220	0	409	240	841	375	110	1123	501	226	1375	788
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.1	0.0	44.8	49.8	39.3	35.6	54.9	37.0	28.8	50.4	30.2	14.7
Incr Delay (d2), s/veh	23.1	0.0	27.5	28.6	1.3	0.3	23.1	8.9	1.2	27.8	3.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	0.0	13.1	7.4	6.5	2.1	2.6	13.5	2.6	6.8	12.8	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.3	0.0	72.2	78.4	40.6	35.9	78.0	45.9	30.0	78.1	34.0	15.0
LnGrp LOS	E	A	E	E	D	D	E	D	C	E	C	B
Approach Vol, veh/h		527			805			1165			1322	
Approach Delay, s/veh		72.9			49.4			46.2			38.7	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.7	45.1	20.8	32.0	11.0	53.8	18.1	34.7
Change Period (Y+Rc), s	4.6	* 6.5	4.6	5.8	4.6	6.5	4.6	5.8
Max Green Setting (Gmax), s	16.4	* 39	17.4	27.2	8.0	45.9	16.0	28.6
Max Q Clear Time (g_c+I1), s	15.1	33.3	16.2	25.9	7.1	32.6	13.5	17.7
Green Ext Time (p_c), s	0.0	2.8	0.0	0.3	0.0	6.0	0.0	2.5

Intersection Summary	
HCM 6th Ctrl Delay	48.0
HCM 6th LOS	D

Notes

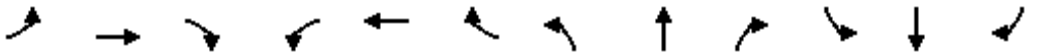
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	104	165	37	73	151	46	986	129	56	1057	92
Future Volume (vph)	104	165	37	73	151	46	986	129	56	1057	92
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	28.8	28.8	28.8	33.8	33.8	9.6	24.2	24.2	9.6	31.5	31.5
Total Split (s)	44.0	44.0	44.0	44.0	44.0	15.0	60.0	60.0	16.0	61.0	61.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	12.5%	50.0%	50.0%	13.3%	50.8%	50.8%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	3.6	4.2	4.2	3.6	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8		5.8	4.6	5.2	5.2	4.6	6.5	6.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 102.7
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: Euclid Av. (SR-83) & Chino Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	165	37	73	151	51	46	986	129	56	1057	92
Future Volume (veh/h)	104	165	37	73	151	51	46	986	129	56	1057	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	111	176	23	78	161	42	49	1049	113	60	1124	67
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	225	442	374	115	204	48	60	1852	826	75	1882	822
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.04	0.54	0.54	0.05	0.55	0.55
Sat Flow, veh/h	1131	1800	1524	285	833	196	1619	3420	1525	1619	3420	1494
Grp Volume(v), veh/h	111	176	23	281	0	0	49	1049	113	60	1124	67
Grp Sat Flow(s),veh/h/ln	1131	1800	1524	1314	0	0	1619	1710	1525	1619	1710	1494
Q Serve(g_s), s	0.0	8.3	1.2	13.2	0.0	0.0	3.0	20.5	3.7	3.7	22.3	2.1
Cycle Q Clear(g_c), s	19.3	8.3	1.2	21.5	0.0	0.0	3.0	20.5	3.7	3.7	22.3	2.1
Prop In Lane	1.00		1.00	0.28		0.15	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	225	442	374	368	0	0	60	1852	826	75	1882	822
V/C Ratio(X)	0.49	0.40	0.06	0.76	0.00	0.00	0.81	0.57	0.14	0.80	0.60	0.08
Avail Cap(c_a), veh/h	375	679	575	572	0	0	166	1852	826	182	1882	822
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.1	31.9	29.3	37.7	0.0	0.0	48.4	15.3	11.5	47.8	15.2	10.7
Incr Delay (d2), s/veh	1.7	0.6	0.1	3.3	0.0	0.0	9.2	1.3	0.3	7.3	1.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	3.5	0.4	6.7	0.0	0.0	1.3	7.1	1.2	1.6	7.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.7	32.5	29.3	41.0	0.0	0.0	57.6	16.6	11.8	55.1	16.7	10.9
LnGrp LOS	D	C	C	D	A	A	E	B	B	E	B	B
Approach Vol, veh/h		310			281			1211			1251	
Approach Delay, s/veh		34.2			41.0			17.8			18.2	
Approach LOS		C			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.3	61.3		30.6	8.4	62.2		30.6				
Change Period (Y+Rc), s	4.6	* 6.5		5.8	4.6	6.5		5.8				
Max Green Setting (Gmax), s	11.4	* 55		38.2	10.4	54.5		38.2				
Max Q Clear Time (g_c+I1), s	5.7	22.5		21.3	5.0	24.3		23.5				
Green Ext Time (p_c), s	0.0	8.0		1.2	0.0	8.4		1.3				

Intersection Summary		
HCM 6th Ctrl Delay		21.8
HCM 6th LOS		C

Notes

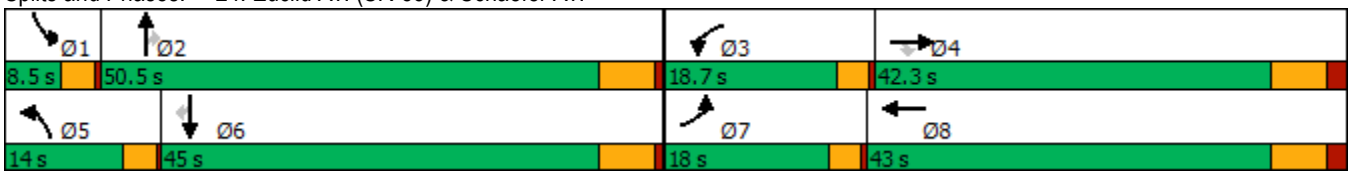
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

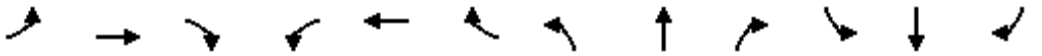
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	153	73	58	140	177	102	949	35	29	966	122
Future Volume (vph)	153	73	58	140	177	102	949	35	29	966	122
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.5	42.0	42.0	13.5	43.0	8.5	33.0	33.0	8.5	28.0	28.0
Total Split (s)	18.0	42.3	42.3	18.7	43.0	14.0	50.5	50.5	8.5	45.0	45.0
Total Split (%)	15.0%	35.3%	35.3%	15.6%	35.8%	11.7%	42.1%	42.1%	7.1%	37.5%	37.5%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	7.0	7.0	3.5	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 97.4
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Euclid Av. (SR-83) & Schaefer Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	73	58	140	177	11	102	949	35	29	966	122
Future Volume (veh/h)	153	73	58	140	177	11	102	949	35	29	966	122
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	165	78	43	151	190	10	110	1020	28	31	1039	97
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	199	272	231	203	260	14	136	1473	657	51	1292	575
Arrive On Green	0.12	0.15	0.15	0.13	0.15	0.15	0.08	0.43	0.43	0.03	0.38	0.38
Sat Flow, veh/h	1619	1800	1525	1619	1694	89	1619	3420	1525	1619	3420	1521
Grp Volume(v), veh/h	165	78	43	151	0	200	110	1020	28	31	1039	97
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1619	0	1783	1619	1710	1525	1619	1710	1521
Q Serve(g_s), s	7.6	2.9	1.9	6.9	0.0	8.2	5.1	18.5	0.8	1.4	20.8	3.2
Cycle Q Clear(g_c), s	7.6	2.9	1.9	6.9	0.0	8.2	5.1	18.5	0.8	1.4	20.8	3.2
Prop In Lane	1.00		1.00	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	199	272	231	203	0	274	136	1473	657	51	1292	575
V/C Ratio(X)	0.83	0.29	0.19	0.74	0.00	0.73	0.81	0.69	0.04	0.61	0.80	0.17
Avail Cap(c_a), veh/h	307	830	703	321	0	839	222	1988	887	106	1742	775
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.8	28.8	28.4	32.3	0.0	30.9	34.4	17.7	12.6	36.6	21.3	15.8
Incr Delay (d2), s/veh	6.1	0.4	0.3	2.0	0.0	2.8	4.2	0.6	0.0	4.3	2.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	1.2	0.7	2.6	0.0	3.5	2.0	6.0	0.2	0.6	7.3	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.9	29.2	28.7	34.3	0.0	33.7	38.6	18.3	12.7	40.9	23.3	16.0
LnGrp LOS	D	C	C	C	A	C	D	B	B	D	C	B
Approach Vol, veh/h		286			351			1158			1167	
Approach Delay, s/veh		34.7			33.9			20.1			23.2	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.9	39.0	13.1	18.6	10.0	34.9	12.9	18.8
Change Period (Y+Rc), s	3.5	6.0	3.5	7.0	3.5	6.0	3.5	7.0
Max Green Setting (Gmax), s	5.0	44.5	15.2	35.3	10.5	39.0	14.5	36.0
Max Q Clear Time (g_c+I1), s	3.4	20.5	8.9	4.9	7.1	22.8	9.6	10.2
Green Ext Time (p_c), s	0.0	6.8	0.1	0.4	0.0	6.1	0.1	0.8

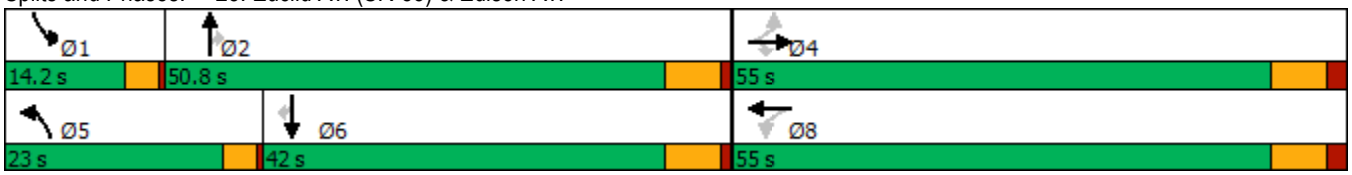
Intersection Summary	
HCM 6th Ctrl Delay	24.4
HCM 6th LOS	C

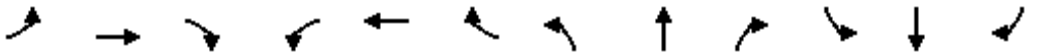
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	156	237	99	36	416	208	884	38	63	851	167
Future Volume (vph)	156	237	99	36	416	208	884	38	63	851	167
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	46.0	46.0	46.0	49.0	49.0	8.5	29.0	29.0	8.5	40.0	40.0
Total Split (s)	55.0	55.0	55.0	55.0	55.0	23.0	50.8	50.8	14.2	42.0	42.0
Total Split (%)	45.8%	45.8%	45.8%	45.8%	45.8%	19.2%	42.3%	42.3%	11.8%	35.0%	35.0%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 109.1
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 25: Euclid Av. (SR-83) & Edison Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	156	237	99	36	416	63	208	884	38	63	851	167
Future Volume (veh/h)	156	237	99	36	416	63	208	884	38	63	851	167
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	162	247	48	38	433	61	217	921	32	66	886	123
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	228	752	637	401	645	91	242	1326	592	82	989	430
Arrive On Green	0.42	0.42	0.42	0.42	0.42	0.42	0.15	0.39	0.39	0.05	0.29	0.29
Sat Flow, veh/h	866	1800	1524	1040	1543	217	1619	3420	1525	1619	3420	1488
Grp Volume(v), veh/h	162	247	48	38	0	494	217	921	32	66	886	123
Grp Sat Flow(s),veh/h/ln	866	1800	1524	1040	0	1761	1619	1710	1525	1619	1710	1488
Q Serve(g_s), s	21.4	10.6	2.2	2.9	0.0	26.1	15.1	25.9	1.5	4.6	28.6	7.4
Cycle Q Clear(g_c), s	47.5	10.6	2.2	13.6	0.0	26.1	15.1	25.9	1.5	4.6	28.6	7.4
Prop In Lane	1.00		1.00	1.00		0.12	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	228	752	637	401	0	736	242	1326	592	82	989	430
V/C Ratio(X)	0.71	0.33	0.08	0.09	0.00	0.67	0.90	0.69	0.05	0.80	0.90	0.29
Avail Cap(c_a), veh/h	228	752	637	401	0	736	275	1334	595	151	1072	466
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.3	22.6	20.1	27.2	0.0	27.1	48.0	29.5	22.0	54.0	39.2	31.6
Incr Delay (d2), s/veh	9.9	0.3	0.0	0.1	0.0	2.4	25.5	1.6	0.0	6.6	9.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	4.4	0.8	0.7	0.0	10.8	7.5	10.1	0.5	2.0	12.5	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.2	22.8	20.2	27.3	0.0	29.5	73.5	31.0	22.0	60.6	48.7	32.0
LnGrp LOS	E	C	C	C	A	C	E	C	C	E	D	C
Approach Vol, veh/h		457			532			1170			1075	
Approach Delay, s/veh		34.4			29.3			38.7			47.5	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.3	50.6		55.0	20.7	39.2		55.0				
Change Period (Y+Rc), s	3.5	6.0		7.0	3.5	6.0		7.0				
Max Green Setting (Gmax), s	10.7	44.8		48.0	19.5	36.0		48.0				
Max Q Clear Time (g_c+I1), s	6.6	27.9		49.5	17.1	30.6		28.1				
Green Ext Time (p_c), s	0.0	5.3		0.0	0.1	2.6		2.9				

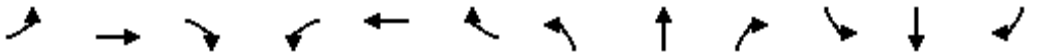
Intersection Summary			
HCM 6th Ctrl Delay		39.5	
HCM 6th LOS		D	

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	67	25	153	32	151	170	1077	12	22	1011	40
Future Volume (vph)	67	25	153	32	151	170	1077	12	22	1011	40
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	46.8	46.8	46.8	46.8	46.8	8.5	30.7	30.7	8.5	37.7	37.7
Total Split (s)	46.8	46.8	46.8	46.8	46.8	24.0	63.5	63.5	9.7	49.2	49.2
Total Split (%)	39.0%	39.0%	39.0%	39.0%	39.0%	20.0%	52.9%	52.9%	8.1%	41.0%	41.0%
Yellow Time (s)	4.3	4.3	4.3	4.3	4.3	3.0	4.7	4.7	3.0	4.7	4.7
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.8	4.8	3.5	5.7	5.7	3.5	5.7	5.7
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 76.3
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 26: Euclid Av. (SR-83) & Eucalyptus Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	25	153	32	151	37	170	1077	12	22	1011	40
Future Volume (veh/h)	67	25	153	32	151	37	170	1077	12	22	1011	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	68	26	70	33	154	30	173	1099	11	22	1032	30
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	245	350	297	358	285	56	217	1800	803	42	1431	637
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.13	0.53	0.53	0.03	0.42	0.42
Sat Flow, veh/h	1151	1800	1525	1247	1464	285	1619	3420	1525	1619	3420	1524
Grp Volume(v), veh/h	68	26	70	33	0	184	173	1099	11	22	1032	30
Grp Sat Flow(s),veh/h/ln	1151	1800	1525	1247	0	1749	1619	1710	1525	1619	1710	1524
Q Serve(g_s), s	3.1	0.7	2.1	1.2	0.0	5.2	5.7	12.4	0.2	0.7	13.9	0.6
Cycle Q Clear(g_c), s	8.4	0.7	2.1	1.9	0.0	5.2	5.7	12.4	0.2	0.7	13.9	0.6
Prop In Lane	1.00		1.00	1.00		0.16	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	245	350	297	358	0	340	217	1800	803	42	1431	637
V/C Ratio(X)	0.28	0.07	0.24	0.09	0.00	0.54	0.80	0.61	0.01	0.52	0.72	0.05
Avail Cap(c_a), veh/h	895	1366	1158	1062	0	1327	600	3573	1594	181	2689	1198
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.8	18.2	18.8	19.0	0.0	20.0	23.2	9.1	6.3	26.6	13.4	9.5
Incr Delay (d2), s/veh	0.5	0.1	0.3	0.1	0.0	1.0	5.0	0.3	0.0	7.3	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.2	0.7	0.3	0.0	1.9	2.1	2.7	0.0	0.3	3.8	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.3	18.3	19.1	19.1	0.0	21.0	28.2	9.5	6.3	33.9	14.1	9.6
LnGrp LOS	C	B	B	B	A	C	C	A	A	C	B	A
Approach Vol, veh/h		164			217			1283			1084	
Approach Delay, s/veh		21.1			20.7			12.0			14.4	
Approach LOS		C			C			B			B	

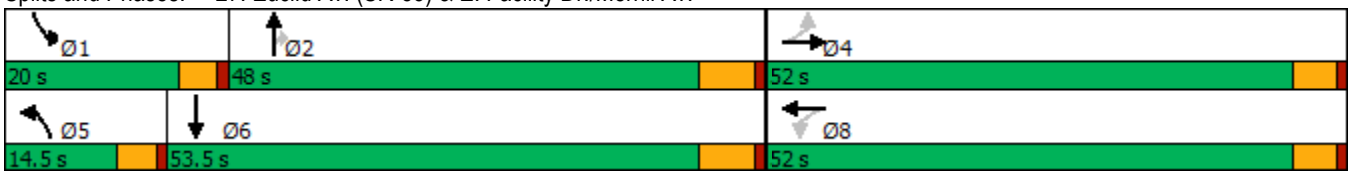
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.9	34.8		15.6	10.9	28.8		15.6				
Change Period (Y+Rc), s	3.5	5.7		4.8	3.5	5.7		4.8				
Max Green Setting (Gmax), s	6.2	57.8		42.0	20.5	43.5		42.0				
Max Q Clear Time (g_c+I1), s	2.7	14.4		10.4	7.7	15.9		7.2				
Green Ext Time (p_c), s	0.0	8.4		0.4	0.2	7.2		0.8				

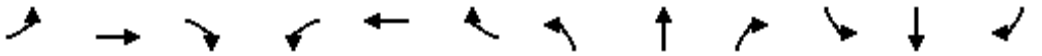
Intersection Summary												
HCM 6th Ctrl Delay			14.2									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	4	8	228	48	10	1031	141	120	1041
Future Volume (vph)	4	8	228	48	10	1031	141	120	1041
Turn Type	Perm	NA	Perm	NA	Prot	NA	Perm	Prot	NA
Protected Phases		4		8	5	2		1	6
Permitted Phases	4		8				2		
Detector Phase	4	4	8	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	15.0	15.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	10.0	10.0	46.0	46.0	14.5	28.0	28.0	14.5	28.0
Total Split (s)	52.0	52.0	52.0	52.0	14.5	48.0	48.0	20.0	53.5
Total Split (%)	43.3%	43.3%	43.3%	43.3%	12.1%	40.0%	40.0%	16.7%	44.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.5	5.0	5.0	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	4.5	6.0	6.0	4.5	6.0
Lead/Lag					Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 107.9
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 27: Euclid Av. (SR-83) & E. Facility Dr./Merrill Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	8	17	228	48	228	10	1031	141	120	1041	39
Future Volume (veh/h)	4	8	17	228	48	228	10	1031	141	120	1041	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	4	8	17	235	49	208	10	1063	102	124	1073	26
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	95	184	331	310	56	225	40	1266	565	170	1536	37
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.02	0.37	0.37	0.10	0.45	0.45
Sat Flow, veh/h	141	518	932	707	157	633	1619	3420	1525	1619	3410	83
Grp Volume(v), veh/h	29	0	0	492	0	0	10	1063	102	124	538	561
Grp Sat Flow(s),veh/h/ln	1591	0	0	1497	0	0	1619	1710	1525	1619	1710	1783
Q Serve(g_s), s	0.0	0.0	0.0	27.7	0.0	0.0	0.6	25.9	4.1	6.8	23.0	23.0
Cycle Q Clear(g_c), s	1.1	0.0	0.0	28.8	0.0	0.0	0.6	25.9	4.1	6.8	23.0	23.0
Prop In Lane	0.14		0.59	0.48		0.42	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	610	0	0	590	0	0	40	1266	565	170	770	803
V/C Ratio(X)	0.05	0.00	0.00	0.83	0.00	0.00	0.25	0.84	0.18	0.73	0.70	0.70
Avail Cap(c_a), veh/h	852	0	0	828	0	0	177	1573	702	275	890	928
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.3	0.0	0.0	28.2	0.0	0.0	43.7	26.3	19.4	39.6	20.1	20.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	3.7	0.0	0.0	1.2	3.5	0.2	2.3	2.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	9.8	0.0	0.0	0.2	9.9	1.3	2.6	8.2	8.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.3	0.0	0.0	31.9	0.0	0.0	44.9	29.8	19.6	41.9	22.1	22.1
LnGrp LOS	B	A	A	C	A	A	D	C	B	D	C	C
Approach Vol, veh/h		29			492			1175			1223	
Approach Delay, s/veh		19.3			31.9			29.0			24.1	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.1	39.8		37.4	6.7	47.1		37.4				
Change Period (Y+Rc), s	4.5	6.0		5.0	4.5	6.0		5.0				
Max Green Setting (Gmax), s	15.5	42.0		47.0	10.0	47.5		47.0				
Max Q Clear Time (g_c+I1), s	8.8	27.9		3.1	2.6	25.0		30.8				
Green Ext Time (p_c), s	0.1	5.9		0.1	0.0	6.4		1.6				

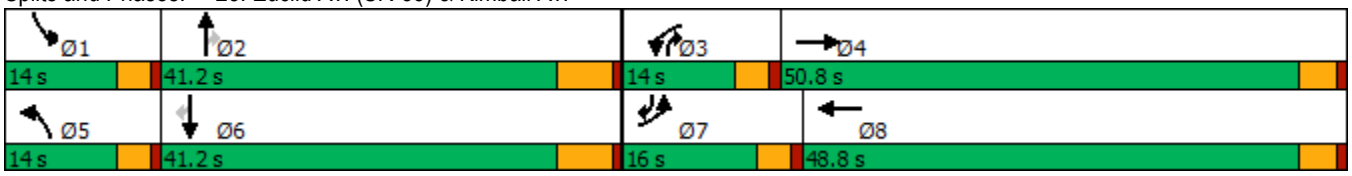
Intersection Summary												
HCM 6th Ctrl Delay			27.3									
HCM 6th LOS			C									

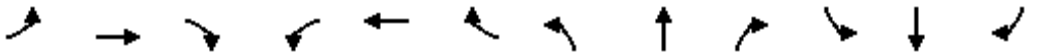
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	125	223	47	721	84	721	29	190	645	381
Future Volume (vph)	125	223	47	721	84	721	29	190	645	381
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	3	8	5	2	3	1	6	7
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	7
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	14.0	49.5	14.0	45.5	14.0	36.0	14.0	9.0	33.0	14.0
Total Split (s)	16.0	50.8	14.0	48.8	14.0	41.2	14.0	14.0	41.2	16.0
Total Split (%)	13.3%	42.3%	11.7%	40.7%	11.7%	34.3%	11.7%	11.7%	34.3%	13.3%
Yellow Time (s)	3.0	3.5	3.0	3.5	3.0	5.0	3.0	3.0	5.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.5	4.0	4.5	4.0	6.0	4.0	4.0	6.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	None	Min	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 103.5
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 28: Euclid Av. (SR-83) & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	223	32	47	721	295	84	721	29	190	645	381
Future Volume (veh/h)	125	223	32	47	721	295	84	721	29	190	645	381
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1600	1800	1800	1700	1800	1800	1700	1800	1800	1600	1800	1800
Adj Flow Rate, veh/h	128	228	24	48	736	265	86	736	18	194	658	260
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	311	1155	120	125	841	303	157	907	522	255	869	543
Arrive On Green	0.11	0.37	0.37	0.08	0.34	0.34	0.10	0.27	0.27	0.09	0.25	0.25
Sat Flow, veh/h	2956	3126	326	1619	2463	887	1619	3420	1525	2956	3420	1506
Grp Volume(v), veh/h	128	124	128	48	511	490	86	736	18	194	658	260
Grp Sat Flow(s),veh/h/ln	1478	1710	1741	1619	1710	1640	1619	1710	1525	1478	1710	1506
Q Serve(g_s), s	3.7	4.5	4.6	2.6	25.7	25.7	4.6	18.4	0.7	5.9	16.3	12.2
Cycle Q Clear(g_c), s	3.7	4.5	4.6	2.6	25.7	25.7	4.6	18.4	0.7	5.9	16.3	12.2
Prop In Lane	1.00		0.19	1.00		0.54	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	311	632	644	125	584	560	157	907	522	255	869	543
V/C Ratio(X)	0.41	0.20	0.20	0.38	0.87	0.87	0.55	0.81	0.03	0.76	0.76	0.48
Avail Cap(c_a), veh/h	388	865	881	177	828	794	177	1316	704	323	1316	740
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.3	19.6	19.6	40.2	28.3	28.3	39.4	31.5	20.0	40.9	31.5	22.7
Incr Delay (d2), s/veh	0.3	0.1	0.2	0.7	5.8	6.0	1.1	2.6	0.0	5.7	1.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.7	1.7	1.0	10.5	10.1	1.8	7.2	0.2	2.2	6.3	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.6	19.8	19.8	40.9	34.1	34.3	40.5	34.1	20.1	46.6	32.9	23.4
LnGrp LOS	D	B	B	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		380			1049			840			1112	
Approach Delay, s/veh		26.1			34.5			34.4			33.0	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	30.3	11.0	38.3	12.9	29.3	13.6	35.8
Change Period (Y+Rc), s	4.0	6.0	4.0	4.5	4.0	6.0	4.0	4.5
Max Green Setting (Gmax), s	10.0	35.2	10.0	46.3	10.0	35.2	12.0	44.3
Max Q Clear Time (g_c+I1), s	7.9	20.4	4.6	6.6	6.6	18.3	5.7	27.7
Green Ext Time (p_c), s	0.1	3.8	0.0	1.3	0.0	4.4	0.1	3.6

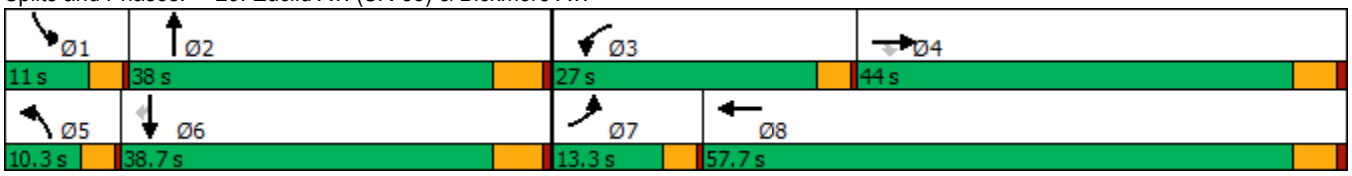
Intersection Summary	
HCM 6th Ctrl Delay	33.1
HCM 6th LOS	C

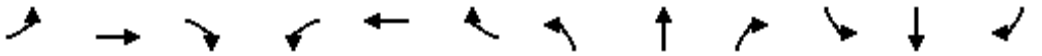
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	65	10	40	166	203	86	546	34	575	205
Future Volume (vph)	65	10	40	166	203	86	546	34	575	205
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.5	44.0	44.0	8.5	44.0	8.5	26.5	8.5	30.5	30.5
Total Split (s)	13.3	44.0	44.0	27.0	57.7	10.3	38.0	11.0	38.7	38.7
Total Split (%)	11.1%	36.7%	36.7%	22.5%	48.1%	8.6%	31.7%	9.2%	32.3%	32.3%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	3.0	4.5	3.0	4.5	4.5
All-Red Time (s)	0.5	1.0	1.0	0.5	1.0	0.5	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.5	3.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 75.1
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 29: Euclid Av. (SR-83) & Bickmore Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	10	40	166	203	131	86	546	20	34	575	205
Future Volume (veh/h)	65	10	40	166	203	131	86	546	20	34	575	205
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	72	11	40	184	226	107	96	607	15	38	639	180
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	103	305	259	230	287	136	120	1005	25	67	895	399
Arrive On Green	0.06	0.17	0.17	0.14	0.25	0.25	0.07	0.29	0.29	0.04	0.26	0.26
Sat Flow, veh/h	1619	1800	1525	1619	1155	547	1619	3411	84	1619	3420	1525
Grp Volume(v), veh/h	72	11	40	184	0	333	96	304	318	38	639	180
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1619	0	1702	1619	1710	1785	1619	1710	1525
Q Serve(g_s), s	2.2	0.3	1.1	5.5	0.0	9.1	2.9	7.6	7.6	1.1	8.4	4.9
Cycle Q Clear(g_c), s	2.2	0.3	1.1	5.5	0.0	9.1	2.9	7.6	7.6	1.1	8.4	4.9
Prop In Lane	1.00		1.00	1.00		0.32	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	103	305	259	230	0	423	120	504	526	67	895	399
V/C Ratio(X)	0.70	0.04	0.15	0.80	0.00	0.79	0.80	0.60	0.60	0.57	0.71	0.45
Avail Cap(c_a), veh/h	320	1414	1198	766	0	1806	222	1119	1168	245	2287	1020
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.8	17.2	17.6	20.6	0.0	17.4	22.6	15.0	15.0	23.4	16.6	15.3
Incr Delay (d2), s/veh	3.2	0.0	0.1	2.4	0.0	1.3	4.7	0.4	0.4	2.9	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.1	0.3	1.9	0.0	3.1	1.0	2.2	2.3	0.4	2.5	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.0	17.2	17.7	23.0	0.0	18.7	27.3	15.5	15.4	26.2	17.0	15.6
LnGrp LOS	C	B	B	C	A	B	C	B	B	C	B	B
Approach Vol, veh/h		123			517			718			857	
Approach Delay, s/veh		22.5			20.2			17.0			17.2	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.5	20.1	10.6	13.4	7.2	18.5	6.6	17.3
Change Period (Y+Rc), s	3.5	5.5	3.5	5.0	3.5	5.5	3.5	5.0
Max Green Setting (Gmax), s	7.5	32.5	23.5	39.0	6.8	33.2	9.8	52.7
Max Q Clear Time (g_c+I1), s	3.1	9.6	7.5	3.1	4.9	10.4	4.2	11.1
Green Ext Time (p_c), s	0.0	1.8	0.2	0.1	0.0	2.6	0.0	1.3

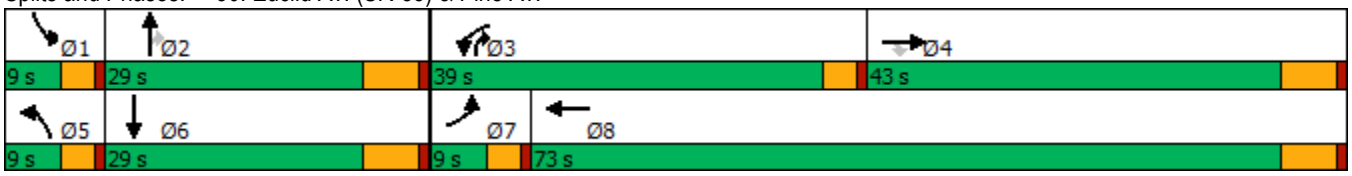
Intersection Summary	
HCM 6th Ctrl Delay	18.1
HCM 6th LOS	B

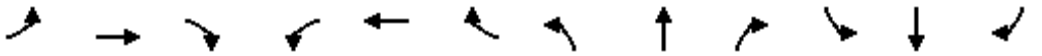
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	8	180	51	981	331	63	646	650	41	627
Future Volume (vph)	8	180	51	981	331	63	646	650	41	627
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4		3	8	5	2	3	1	6
Permitted Phases			4					2		
Detector Phase	7	4	4	3	8	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.0	43.0	43.0	9.0	45.0	9.0	11.0	9.0	9.0	29.0
Total Split (s)	9.0	43.0	43.0	39.0	73.0	9.0	29.0	39.0	9.0	29.0
Total Split (%)	7.5%	35.8%	35.8%	32.5%	60.8%	7.5%	24.2%	32.5%	7.5%	24.2%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0	3.0	3.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	4.0	6.0	4.0	4.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 102.4
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 30: Euclid Av. (SR-83) & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	180	51	981	331	50	63	646	650	41	627	16
Future Volume (veh/h)	8	180	51	981	331	50	63	646	650	41	627	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1600	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	8	186	0	1011	341	50	65	666	414	42	646	12
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	16	248		1080	756	111	80	786	901	59	745	14
Arrive On Green	0.01	0.14	0.00	0.37	0.49	0.49	0.05	0.23	0.23	0.04	0.22	0.22
Sat Flow, veh/h	1619	1800	1525	2956	1535	225	1619	3420	1492	1619	3435	64
Grp Volume(v), veh/h	8	186	0	1011	0	391	65	666	414	42	322	336
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1478	0	1760	1619	1710	1492	1619	1710	1789
Q Serve(g_s), s	0.4	8.6	0.0	28.6	0.0	12.6	3.5	16.2	13.5	2.2	15.7	15.8
Cycle Q Clear(g_c), s	0.4	8.6	0.0	28.6	0.0	12.6	3.5	16.2	13.5	2.2	15.7	15.8
Prop In Lane	1.00		1.00	1.00		0.13	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	16	248		1080	0	867	80	786	901	59	371	388
V/C Ratio(X)	0.49	0.75		0.94	0.00	0.45	0.81	0.85	0.46	0.71	0.87	0.87
Avail Cap(c_a), veh/h	93	767		1191	0	1357	93	906	953	93	453	474
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.8	36.0	0.0	26.6	0.0	14.4	40.9	32.0	9.8	41.4	32.8	32.8
Incr Delay (d2), s/veh	8.2	6.4	0.0	12.3	0.0	0.5	30.8	6.0	0.1	5.6	12.2	11.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	4.0	0.0	10.7	0.0	4.4	2.0	6.7	3.4	0.9	7.2	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.9	42.4	0.0	38.9	0.0	14.9	71.6	37.9	10.0	47.0	45.0	44.6
LnGrp LOS	D	D		D	A	B	E	D	A	D	D	D
Approach Vol, veh/h		194	A		1402			1145			700	
Approach Delay, s/veh		42.8			32.2			29.7			44.9	
Approach LOS		D			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.2	26.0	35.7	17.9	8.3	24.8	4.9	48.8
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	5.0	23.0	35.0	37.0	5.0	23.0	5.0	67.0
Max Q Clear Time (g_c+I1), s	4.2	18.2	30.6	10.6	5.5	17.8	2.4	14.6
Green Ext Time (p_c), s	0.0	1.7	1.1	1.3	0.0	1.1	0.0	3.5

Intersection Summary	
HCM 6th Ctrl Delay	34.6
HCM 6th LOS	C

Notes

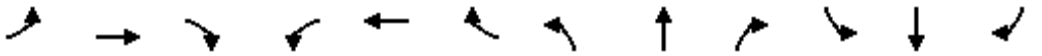
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	34	755	72	61	1286	122	65	12	27	32
Future Volume (vph)	34	755	72	61	1286	122	65	12	27	32
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	NA
Protected Phases	7	4		3	8			2		6
Permitted Phases			4			8	2		6	
Detector Phase	7	4	4	3	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	16.2	9.6	23.2	23.2	15.8	15.8	15.2	15.2
Total Split (s)	9.6	88.4	88.4	15.3	94.1	94.1	16.3	16.3	16.3	16.3
Total Split (%)	8.0%	73.7%	73.7%	12.8%	78.4%	78.4%	13.6%	13.6%	13.6%	13.6%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	5.2	4.8	4.8	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	6.2	5.8	5.8	5.2	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 114.8
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 34: Chino Corona Rd. & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	755	72	61	1286	122	65	12	14	27	32	44
Future Volume (veh/h)	34	755	72	61	1286	122	65	12	14	27	32	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	36	795	0	64	1354	101	68	13	10	28	34	45
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	47	2469		80	1336	1132	114	84	64	162	62	82
Arrive On Green	0.03	0.72	0.00	0.05	0.74	0.74	0.09	0.09	0.09	0.09	0.09	0.09
Sat Flow, veh/h	1619	3420	1525	1619	1800	1525	1266	944	726	1332	703	930
Grp Volume(v), veh/h	36	795	0	64	1354	101	68	0	23	28	0	79
Grp Sat Flow(s),veh/h/ln	1619	1710	1525	1619	1800	1525	1266	0	1669	1332	0	1633
Q Serve(g_s), s	2.6	10.0	0.0	4.6	87.9	2.2	5.0	0.0	1.5	2.4	0.0	5.5
Cycle Q Clear(g_c), s	2.6	10.0	0.0	4.6	87.9	2.2	10.5	0.0	1.5	3.9	0.0	5.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.43	1.00		0.57
Lane Grp Cap(c), veh/h	47	2469		80	1336	1132	114	0	148	162	0	145
V/C Ratio(X)	0.76	0.32		0.80	1.01	0.09	0.59	0.00	0.16	0.17	0.00	0.55
Avail Cap(c_a), veh/h	68	2469		146	1336	1132	114	0	148	169	0	153
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.1	6.0	0.0	55.7	15.3	4.2	57.3	0.0	49.9	51.7	0.0	51.7
Incr Delay (d2), s/veh	13.7	0.3	0.0	6.8	28.1	0.2	8.1	0.0	0.5	0.5	0.0	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.9	0.0	2.0	34.8	0.6	2.3	0.0	0.6	0.8	0.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.8	6.3	0.0	62.5	43.4	4.4	65.3	0.0	50.4	52.2	0.0	55.3
LnGrp LOS	E	A		E	F	A	E	A	D	D	A	E
Approach Vol, veh/h		831	A		1519			91			107	
Approach Delay, s/veh		9.1			41.6			61.6			54.5	
Approach LOS		A			D			E			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		16.3	10.4	91.7		16.3	8.1	94.1				
Change Period (Y+Rc), s		5.8	4.6	6.2		* 5.8	4.6	6.2				
Max Green Setting (Gmax), s		10.5	10.7	82.2		* 11	5.0	87.9				
Max Q Clear Time (g_c+I1), s		12.5	6.6	12.0		7.5	4.6	89.9				
Green Ext Time (p_c), s		0.0	0.0	5.7		0.1	0.0	0.0				

Intersection Summary	
HCM 6th Ctrl Delay	32.3
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

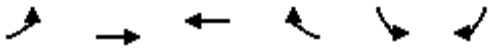
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	22	774	1458	75	11
Future Volume (vph)	22	774	1458	75	11
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	7	4	8	6	
Permitted Phases					6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	14.7	14.7
Total Split (s)	11.4	99.4	88.0	20.6	20.6
Total Split (%)	9.5%	82.8%	73.3%	17.2%	17.2%
Yellow Time (s)	3.6	4.8	4.8	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.7	4.7
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 89.8
Natural Cycle: 70
Control Type: Actuated-Uncoordinated

Splits and Phases: 36: Pine Av. & West Preserve Loop





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	774	1458	229	75	11
Future Volume (veh/h)	22	774	1458	229	75	11
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1700	1800
Adj Flow Rate, veh/h	23	823	1551	234	80	10
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	39	2632	2072	307	182	171
Arrive On Green	0.02	0.77	0.69	0.69	0.11	0.11
Sat Flow, veh/h	1619	3510	3078	443	1619	1525
Grp Volume(v), veh/h	23	823	876	909	80	10
Grp Sat Flow(s),veh/h/ln	1619	1710	1710	1720	1619	1525
Q Serve(g_s), s	1.3	6.5	28.6	30.6	4.1	0.5
Cycle Q Clear(g_c), s	1.3	6.5	28.6	30.6	4.1	0.5
Prop In Lane	1.00			0.26	1.00	1.00
Lane Grp Cap(c), veh/h	39	2632	1186	1193	182	171
V/C Ratio(X)	0.58	0.31	0.74	0.76	0.44	0.06
Avail Cap(c_a), veh/h	124	3599	1580	1590	289	273
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.9	3.1	8.6	8.9	36.9	35.3
Incr Delay (d2), s/veh	12.9	0.1	1.6	1.9	1.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.1	7.3	7.9	1.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	55.8	3.2	10.2	10.8	38.5	35.4
LnGrp LOS	E	A	B	B	D	D
Approach Vol, veh/h		846	1785		90	
Approach Delay, s/veh		4.6	10.5		38.2	
Approach LOS		A	B		D	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			74.2		14.7	6.8	67.5
Change Period (Y+Rc), s			5.8		4.7	4.6	5.8
Max Green Setting (Gmax), s			93.6		15.9	6.8	82.2
Max Q Clear Time (g_c+I1), s			8.5		6.1	3.3	32.6
Green Ext Time (p_c), s			9.2		0.1	0.0	29.1

Intersection Summary	
HCM 6th Ctrl Delay	9.6
HCM 6th LOS	A

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	820	28	17	1635	52	50
Future Volume (vph)	820	28	17	1635	52	50
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	35.8	35.8	9.6	15.8	10.1	10.1
Total Split (s)	89.0	89.0	12.0	101.0	19.0	19.0
Total Split (%)	74.2%	74.2%	10.0%	84.2%	15.8%	15.8%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.1	5.1
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 80.3
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 39: East Preserve Loop & Pine Av.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	820	28	17	1635	52	50
Future Volume (veh/h)	820	28	17	1635	52	50
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1800	1800	1700	1800	1600	1800
Adj Flow Rate, veh/h	872	27	18	1739	55	32
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	2173	969	33	2427	481	248
Arrive On Green	0.64	0.64	0.02	0.71	0.16	0.16
Sat Flow, veh/h	3510	1525	1619	3510	2956	1525
Grp Volume(v), veh/h	872	27	18	1739	55	32
Grp Sat Flow(s),veh/h/ln	1710	1525	1619	1710	1478	1525
Q Serve(g_s), s	10.7	0.6	0.9	25.7	1.4	1.5
Cycle Q Clear(g_c), s	10.7	0.6	0.9	25.7	1.4	1.5
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2173	969	33	2427	481	248
V/C Ratio(X)	0.40	0.03	0.55	0.72	0.11	0.13
Avail Cap(c_a), veh/h	3333	1487	140	3814	481	248
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.6	5.8	41.4	7.3	30.5	30.6
Incr Delay (d2), s/veh	0.2	0.0	5.1	0.6	0.5	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.1	0.4	5.7	0.5	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.8	5.8	46.6	7.9	31.0	31.6
LnGrp LOS	A	A	D	A	C	C
Approach Vol, veh/h	899			1757	87	
Approach Delay, s/veh	7.7			8.3	31.2	
Approach LOS	A			A	C	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		19.0	6.3	60.0		66.4
Change Period (Y+Rc), s		5.1	4.6	5.8		5.8
Max Green Setting (Gmax), s		13.9	7.4	83.2		95.2
Max Q Clear Time (g_c+I1), s		3.5	2.9	12.7		27.7
Green Ext Time (p_c), s		0.1	0.0	10.2		32.9

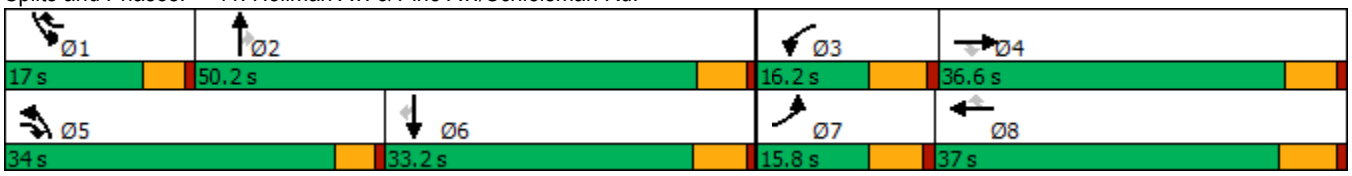
Intersection Summary	
HCM 6th Ctrl Delay	8.8
HCM 6th LOS	A

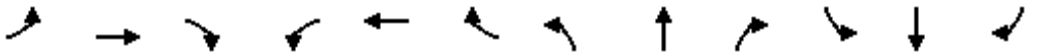
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	454	459	78	1030	287	544	441	85	90	145	14
Future Volume (vph)	32	454	459	78	1030	287	544	441	85	90	145	14
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	5	3	8	1	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	34.8	9.6	16.2	35.2	9.6	9.6	32.4	32.4	9.6	32.8	32.8
Total Split (s)	15.8	36.6	34.0	16.2	37.0	17.0	34.0	50.2	50.2	17.0	33.2	33.2
Total Split (%)	13.2%	30.5%	28.3%	13.5%	30.8%	14.2%	28.3%	41.8%	41.8%	14.2%	27.7%	27.7%
Yellow Time (s)	4.8	4.8	3.6	5.2	5.2	3.6	3.6	4.4	4.4	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	6.2	6.2	4.6	4.6	5.4	5.4	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 108.7
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 41: Hellman Av. & Pine Av./Schleisman Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	454	459	78	1030	287	544	441	85	90	145	14
Future Volume (veh/h)	32	454	459	78	1030	287	544	441	85	90	145	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1600	1800	1800	1600	1800	1800	1600	1800	1800	1600	1800	1800
Adj Flow Rate, veh/h	33	463	330	80	1051	180	555	450	44	92	148	11
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	265	1248	704	265	1266	464	613	1389	620	137	838	374
Arrive On Green	0.09	0.25	0.25	0.09	0.26	0.26	0.21	0.41	0.41	0.05	0.25	0.25
Sat Flow, veh/h	2956	4914	1525	2956	4914	1525	2956	3420	1525	2956	3420	1525
Grp Volume(v), veh/h	33	463	330	80	1051	180	555	450	44	92	148	11
Grp Sat Flow(s),veh/h/ln	1478	1638	1525	1478	1638	1525	1478	1710	1525	1478	1710	1525
Q Serve(g_s), s	1.1	8.7	16.6	2.8	22.6	10.4	20.5	10.1	2.0	3.4	3.8	0.6
Cycle Q Clear(g_c), s	1.1	8.7	16.6	2.8	22.6	10.4	20.5	10.1	2.0	3.4	3.8	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	265	1248	704	265	1266	464	613	1389	620	137	838	374
V/C Ratio(X)	0.12	0.37	0.47	0.30	0.83	0.39	0.91	0.32	0.07	0.67	0.18	0.03
Avail Cap(c_a), veh/h	265	1354	737	265	1354	491	778	1389	620	328	838	374
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.9	34.3	20.7	47.6	39.2	30.7	43.2	22.7	20.3	52.5	33.3	32.1
Incr Delay (d2), s/veh	0.3	0.3	0.7	0.9	4.5	0.8	10.7	0.6	0.2	2.1	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	3.3	5.6	1.0	9.1	3.7	8.0	3.9	0.7	1.3	1.6	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.2	34.6	21.4	48.5	43.7	31.5	53.9	23.3	20.5	54.6	33.7	32.2
LnGrp LOS	D	C	C	D	D	C	D	C	C	D	C	C
Approach Vol, veh/h		826			1311			1049			251	
Approach Delay, s/veh		29.8			42.3			39.4			41.3	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	51.2	16.2	34.6	27.8	33.2	15.8	35.0
Change Period (Y+Rc), s	4.6	* 5.8	6.2	* 6.2	4.6	5.8	5.8	6.2
Max Green Setting (Gmax), s	12.4	* 45	10.0	* 31	29.4	27.4	10.0	30.8
Max Q Clear Time (g_c+I1), s	5.4	12.1	4.8	18.6	22.5	5.8	3.1	24.6
Green Ext Time (p_c), s	0.1	4.3	0.1	4.3	0.7	1.0	0.0	4.2

Intersection Summary	
HCM 6th Ctrl Delay	38.3
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	297	729	790	287	180	475
Future Volume (vph)	297	729	790	287	180	475
Turn Type	Prot	pm+ov	NA	pm+ov	Prot	NA
Protected Phases	8	1	2	8	1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	36.3	11.0	46.3	36.3	11.0	11.0
Total Split (s)	36.3	27.0	56.7	36.3	27.0	83.7
Total Split (%)	30.3%	22.5%	47.3%	30.3%	22.5%	69.8%
Yellow Time (s)	4.3	4.0	4.3	4.3	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.0	5.3	5.3	5.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 111.8
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 42: Archibald Av. & Limonite Av.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	297	729	790	287	180	475
Future Volume (veh/h)	297	729	790	287	180	475
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	309	703	823	252	188	495
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	509	650	864	1185	221	1182
Arrive On Green	0.28	0.28	0.45	0.45	0.12	0.62
Sat Flow, veh/h	1810	1610	1900	1610	1810	1900
Grp Volume(v), veh/h	309	703	823	252	188	495
Grp Sat Flow(s),veh/h/ln	1810	1610	1900	1610	1810	1900
Q Serve(g_s), s	16.3	31.0	45.9	5.4	11.2	14.7
Cycle Q Clear(g_c), s	16.3	31.0	45.9	5.4	11.2	14.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	509	650	864	1185	221	1182
V/C Ratio(X)	0.61	1.08	0.95	0.21	0.85	0.42
Avail Cap(c_a), veh/h	509	650	887	1205	361	1358
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.3	32.8	28.9	4.5	47.3	10.6
Incr Delay (d2), s/veh	1.5	59.4	19.6	0.1	10.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	26.5	23.4	3.9	5.4	5.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	35.8	92.2	48.4	4.7	57.3	10.7
LnGrp LOS	D	F	D	A	E	B
Approach Vol, veh/h	1012		1075			683
Approach Delay, s/veh	75.0		38.2			23.5
Approach LOS	E		D			C

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	18.5	55.4			73.8	36.3
Change Period (Y+Rc), s	5.0	5.3			* 5.3	5.3
Max Green Setting (Gmax), s	22.0	51.4			* 79	31.0
Max Q Clear Time (g_c+I1), s	13.2	47.9			16.7	33.0
Green Ext Time (p_c), s	0.3	2.2			1.6	0.0

Intersection Summary	
HCM 6th Ctrl Delay	48.0
HCM 6th LOS	D

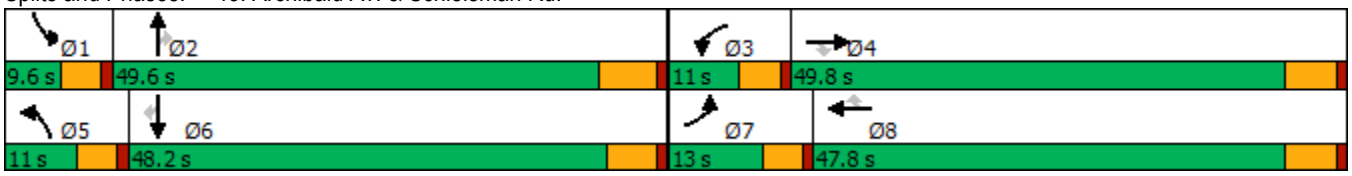
Notes

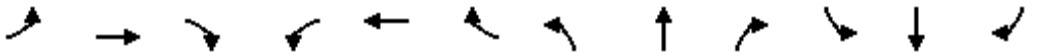
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	393	375	115	248	703	137	248	776	215	103	440	455
Future Volume (vph)	393	375	115	248	703	137	248	776	215	103	440	455
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	47.8	47.8	9.6	47.8	47.8	9.6	48.2	48.2	9.6	47.4	47.4
Total Split (s)	13.0	49.8	49.8	11.0	47.8	47.8	11.0	49.6	49.6	9.6	48.2	48.2
Total Split (%)	10.8%	41.5%	41.5%	9.2%	39.8%	39.8%	9.2%	41.3%	41.3%	8.0%	40.2%	40.2%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	5.2	5.2	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	6.2	6.2	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 109.2
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 43: Archibald Av. & Schleisman Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	393	375	115	248	703	137	248	776	215	103	440	455
Future Volume (veh/h)	393	375	115	248	703	137	248	776	215	103	440	455
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	437	417	64	276	781	75	276	862	166	114	489	384
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	271	2095	640	206	2000	613	206	1540	478	161	1474	451
Arrive On Green	0.08	0.40	0.40	0.06	0.39	0.39	0.06	0.30	0.30	0.05	0.28	0.28
Sat Flow, veh/h	3510	5187	1584	3510	5187	1590	3510	5187	1610	3510	5187	1588
Grp Volume(v), veh/h	437	417	64	276	781	75	276	862	166	114	489	384
Grp Sat Flow(s),veh/h/ln	1755	1729	1584	1755	1729	1590	1755	1729	1610	1755	1729	1588
Q Serve(g_s), s	8.4	5.7	2.7	6.4	11.9	3.3	6.4	15.3	8.8	3.5	8.1	24.9
Cycle Q Clear(g_c), s	8.4	5.7	2.7	6.4	11.9	3.3	6.4	15.3	8.8	3.5	8.1	24.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	271	2095	640	206	2000	613	206	1540	478	161	1474	451
V/C Ratio(X)	1.61	0.20	0.10	1.34	0.39	0.12	1.34	0.56	0.35	0.71	0.33	0.85
Avail Cap(c_a), veh/h	271	2095	640	206	2000	613	206	2066	641	161	2038	624
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.3	21.1	20.2	51.3	24.2	21.6	51.3	32.3	30.0	51.3	30.8	36.8
Incr Delay (d2), s/veh	293.1	0.2	0.3	181.3	0.6	0.4	181.3	0.3	0.4	11.5	0.1	8.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.6	2.2	1.0	7.9	4.7	1.3	7.9	6.1	3.3	1.7	3.2	10.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	343.3	21.3	20.5	232.6	24.8	22.0	232.6	32.6	30.5	62.7	31.0	44.9
LnGrp LOS	F	C	C	F	C	C	F	C	C	E	C	D
Approach Vol, veh/h		918			1132			1304			987	
Approach Delay, s/veh		174.5			75.3			74.7			40.1	
Approach LOS		F			E			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	38.6	11.0	49.8	11.0	37.2	13.0	47.8
Change Period (Y+Rc), s	4.6	6.2	4.6	5.8	4.6	* 6.2	4.6	5.8
Max Green Setting (Gmax), s	5.0	43.4	6.4	44.0	6.4	* 43	8.4	42.0
Max Q Clear Time (g_c+I1), s	5.5	17.3	8.4	7.7	8.4	26.9	10.4	13.9
Green Ext Time (p_c), s	0.0	6.3	0.0	2.9	0.0	3.9	0.0	5.6

Intersection Summary	
HCM 6th Ctrl Delay	88.1
HCM 6th LOS	F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

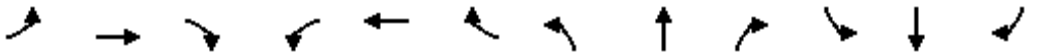
Lane Group	EBT	EBR	WBT	WBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	962	67	788	270	873	0
Future Volume (vph)	962	67	788	270	873	0
Turn Type	NA	Perm	NA	Perm	Perm	NA
Protected Phases	2		6			4
Permitted Phases		2		6	4	
Detector Phase	2	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	22.8	22.8	15.8	15.8
Total Split (s)	23.0	23.0	23.0	23.0	42.0	42.0
Total Split (%)	35.4%	35.4%	35.4%	35.4%	64.6%	64.6%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max	Max	None	None

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Central Av. & SR-71 SB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱↱				↰	✣	
Traffic Volume (veh/h)	0	962	67	0	788	270	0	0	0	873	0	826
Future Volume (veh/h)	0	962	67	0	788	270	0	0	0	873	0	826
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	0	1034	0	0	847	0				816	172	693
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1387		0	1387					999	182	735
Arrive On Green	0.00	0.27	0.00	0.00	0.27	0.00				0.55	0.55	0.55
Sat Flow, veh/h	0	5358	1610	0	5358	2834				1810	330	1330
Grp Volume(v), veh/h	0	1034	0	0	847	0				816	0	865
Grp Sat Flow(s),veh/h/ln	0	1729	1610	0	1729	1417				1810	0	1661
Q Serve(g_s), s	0.0	11.7	0.0	0.0	9.2	0.0				23.7	0.0	31.3
Cycle Q Clear(g_c), s	0.0	11.7	0.0	0.0	9.2	0.0				23.7	0.0	31.3
Prop In Lane	0.00		1.00	0.00		1.00				1.00		0.80
Lane Grp Cap(c), veh/h	0	1387		0	1387					999	0	917
V/C Ratio(X)	0.00	0.75		0.00	0.61					0.82	0.00	0.94
Avail Cap(c_a), veh/h	0	1387		0	1387					1018	0	935
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	21.6	0.0	0.0	20.6	0.0				11.7	0.0	13.5
Incr Delay (d2), s/veh	0.0	3.7	0.0	0.0	2.0	0.0				5.2	0.0	17.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.6	0.0	0.0	3.5	0.0				8.0	0.0	12.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	25.2	0.0	0.0	22.6	0.0				16.9	0.0	30.7
LnGrp LOS	A	C		A	C					B	A	C
Approach Vol, veh/h		1034	A		847	A					1681	
Approach Delay, s/veh		25.2			22.6						24.0	
Approach LOS		C			C						C	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		23.0		41.3		23.0						
Change Period (Y+Rc), s		5.8		5.8		5.8						
Max Green Setting (Gmax), s		17.2		36.2		17.2						
Max Q Clear Time (g_c+I1), s		13.7		33.3		11.2						
Green Ext Time (p_c), s		2.3		2.2		3.2						

Intersection Summary		
HCM 6th Ctrl Delay		24.0
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

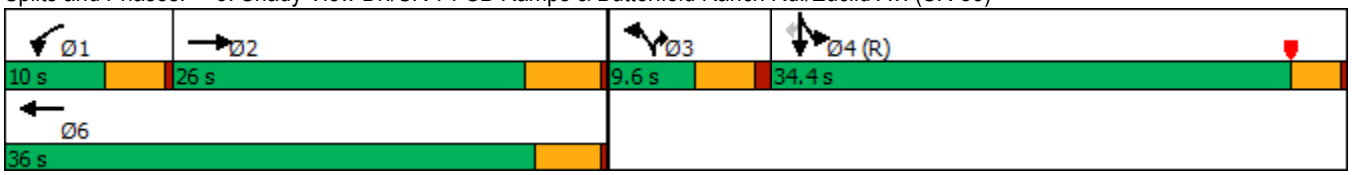
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

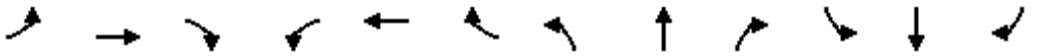
Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	842	121	255	17	147	629	66	67
Future Volume (vph)	842	121	255	17	147	629	66	67
Turn Type	NA	Prot	NA	Prot	Prot	Split	NA	Perm
Protected Phases	2	1	6	3	3	4	4	
Permitted Phases								4
Detector Phase	2	1	6	3	3	4	4	4
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	9.0	26.5	9.5	9.5	32.5	32.5	32.5
Total Split (s)	26.0	10.0	36.0	9.6	9.6	34.4	34.4	34.4
Total Split (%)	32.5%	12.5%	45.0%	12.0%	12.0%	43.0%	43.0%	43.0%
Yellow Time (s)	4.5	3.5	4.0	3.5	3.5	3.0	3.0	3.0
All-Red Time (s)	0.5	0.5	0.5	1.0	1.0	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	4.5	4.5	4.5	3.5	3.5	3.5
Lead/Lag	Lag	Lead		Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	None	None	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 4:SBTL, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 3: Shady View Dr./SR-71 SB Ramps & Butterfield Ranch Rd./Euclid Av. (SR-83)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	842	58	121	255	0	17	0	147	629	66	67
Future Volume (veh/h)	0	842	58	121	255	0	17	0	147	629	66	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	1900	0	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	877	48	126	266	0	18	0	94	704	0	43
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	914	50	136	1399		0	0	0	1832	0	815
Arrive On Green	0.00	0.26	0.26	0.02	0.13	0.00	0.00	0.00	0.00	0.51	0.00	0.51
Sat Flow, veh/h	0	3575	190	1810	3705	0		0		3619	0	1610
Grp Volume(v), veh/h	0	455	470	126	266	0		0.0		704	0	43
Grp Sat Flow(s),veh/h/ln	0	1805	1866	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	19.9	19.9	5.6	5.3	0.0				9.5	0.0	1.1
Cycle Q Clear(g_c), s	0.0	19.9	19.9	5.6	5.3	0.0				9.5	0.0	1.1
Prop In Lane	0.00		0.10	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	474	490	136	1399					1832	0	815
V/C Ratio(X)	0.00	0.96	0.96	0.93	0.19					0.38	0.00	0.05
Avail Cap(c_a), veh/h	0	474	490	136	1421					1832	0	815
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.83	0.83	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	29.1	29.1	38.8	23.7	0.0				12.1	0.0	10.0
Incr Delay (d2), s/veh	0.0	31.0	30.4	49.8	0.0	0.0				0.6	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	11.9	12.2	4.3	2.1	0.0				3.4	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	60.1	59.5	88.6	23.7	0.0				12.7	0.0	10.1
LnGrp LOS	A	E	E	F	C					B	A	B
Approach Vol, veh/h		925			392	A					747	
Approach Delay, s/veh		59.8			44.6						12.6	
Approach LOS		E			D						B	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	10.0	26.0		44.0		36.0						
Change Period (Y+Rc), s	4.0	5.0		3.5		* 5						
Max Green Setting (Gmax), s	6.0	21.0		30.9		* 32						
Max Q Clear Time (g_c+I1), s	7.6	21.9		11.5		7.3						
Green Ext Time (p_c), s	0.0	0.0		2.6		1.2						

Intersection Summary												
HCM 6th Ctrl Delay			39.8									
HCM 6th LOS			D									

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

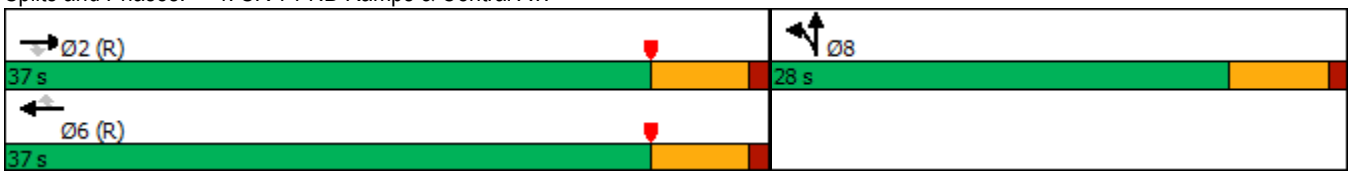
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	1410	425	917	733	141	0
Future Volume (vph)	1410	425	917	733	141	0
Turn Type	NA	Perm	NA	Perm	Split	NA
Protected Phases	2		6		8	8
Permitted Phases		2		6		
Detector Phase	2	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	15.8	15.8	22.8	22.8
Total Split (s)	37.0	37.0	37.0	37.0	28.0	28.0
Total Split (%)	56.9%	56.9%	56.9%	56.9%	43.1%	43.1%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 63.9 (98%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 4: SR-71 NB Ramps & Central Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰	↕				
Traffic Volume (veh/h)	0	1410	425	0	917	733	141	0	343	0	0	0
Future Volume (veh/h)	0	1410	425	0	917	733	141	0	343	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	0	1454	0	0	945	0	145	0	173			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	0	3466		0	3466		277	0	247			
Arrive On Green	0.00	0.67	0.00	0.00	0.67	0.00	0.15	0.00	0.15			
Sat Flow, veh/h	0	5358	1610	0	5358	1610	1810	0	1610			
Grp Volume(v), veh/h	0	1454	0	0	945	0	145	0	173			
Grp Sat Flow(s),veh/h/ln	0	1729	1610	0	1729	1610	1810	0	1610			
Q Serve(g_s), s	0.0	8.4	0.0	0.0	4.8	0.0	4.8	0.0	6.6			
Cycle Q Clear(g_c), s	0.0	8.4	0.0	0.0	4.8	0.0	4.8	0.0	6.6			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3466		0	3466		277	0	247			
V/C Ratio(X)	0.00	0.42		0.00	0.27		0.52	0.00	0.70			
Avail Cap(c_a), veh/h	0	3466		0	3466		618	0	550			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.48	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	5.0	0.0	0.0	4.4	0.0	25.3	0.0	26.1			
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.2	0.0	1.5	0.0	3.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	1.7	0.0	0.0	1.0	0.0	2.0	0.0	2.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	5.2	0.0	0.0	4.6	0.0	26.8	0.0	29.7			
LnGrp LOS	A	A		A	A		C	A	C			
Approach Vol, veh/h		1454	A		945	A		318				
Approach Delay, s/veh		5.2			4.6			28.4				
Approach LOS		A			A			C				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		49.2				49.2		15.8				
Change Period (Y+Rc), s		5.8				5.8		5.8				
Max Green Setting (Gmax), s		31.2				31.2		22.2				
Max Q Clear Time (g_c+I1), s		10.4				6.8		8.6				
Green Ext Time (p_c), s		10.0				6.4		1.1				

Intersection Summary	
HCM 6th Ctrl Delay	7.7
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

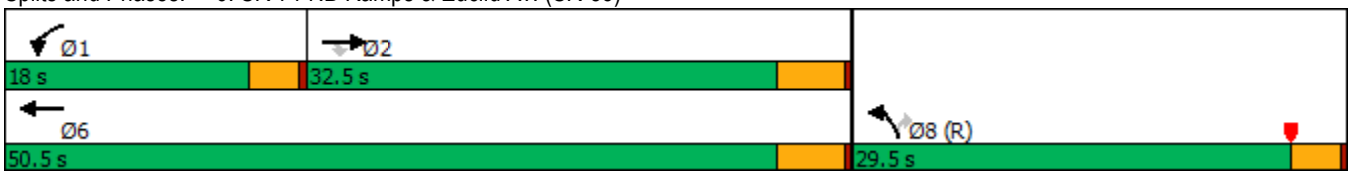
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	807	150	355	992	127	927
Future Volume (vph)	807	150	355	992	127	927
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	32.5	32.5	8.5	9.5	8.5	8.5
Total Split (s)	32.5	32.5	18.0	50.5	29.5	29.5
Total Split (%)	40.6%	40.6%	22.5%	63.1%	36.9%	36.9%
Yellow Time (s)	4.0	4.0	3.0	4.0	3.0	3.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	3.5	4.5	3.5	3.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 9.5 (12%), Referenced to phase 4: and 8:NBL, Start of Yellow
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 6: SR-71 NB Ramps & Euclid Av. (SR-83)





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	807	150	355	992	127	927
Future Volume (veh/h)	807	150	355	992	127	927
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	938	0	413	1153	148	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1081		328	1893	1319	
Arrive On Green	0.40	0.00	0.18	0.52	0.38	0.00
Sat Flow, veh/h	3705	1610	1810	3705	3510	1610
Grp Volume(v), veh/h	938	0	413	1153	148	0
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805	1755	1610
Q Serve(g_s), s	19.1	0.0	14.5	17.9	2.2	0.0
Cycle Q Clear(g_c), s	19.1	0.0	14.5	17.9	2.2	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1081		328	1893	1319	
V/C Ratio(X)	0.87		1.26	0.61	0.11	
Avail Cap(c_a), veh/h	1264		328	2076	1319	
HCM Platoon Ratio	1.33	1.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.46	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.6	0.0	32.8	13.3	16.3	0.0
Incr Delay (d2), s/veh	2.7	0.0	139.0	0.4	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	0.0	18.4	5.7	0.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.4	0.0	171.8	13.7	16.4	0.0
LnGrp LOS	C		F	B	B	
Approach Vol, veh/h	938	A		1566	148	A
Approach Delay, s/veh	25.4			55.4	16.4	
Approach LOS	C			E	B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	18.0	28.4				46.4	33.6
Change Period (Y+Rc), s	3.5	4.5				4.5	3.5
Max Green Setting (Gmax), s	14.5	28.0				46.0	26.0
Max Q Clear Time (g_c+I1), s	16.5	21.1				19.9	4.2
Green Ext Time (p_c), s	0.0	2.8				8.0	0.2

Intersection Summary		
HCM 6th Ctrl Delay		42.6
HCM 6th LOS		D

Notes

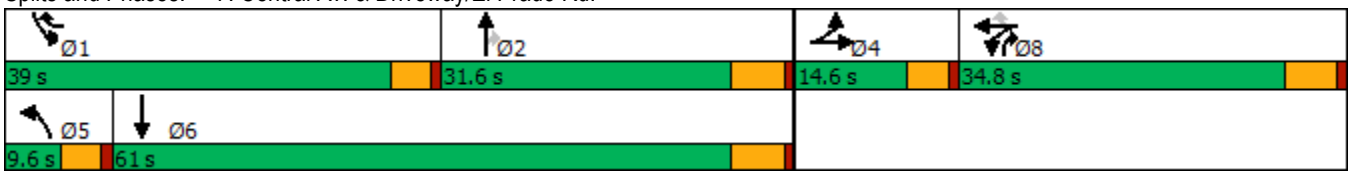
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

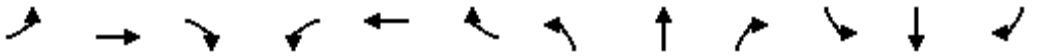
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	17	12	627	3	481	6	752	805	620	847
Future Volume (vph)	17	12	627	3	481	6	752	805	620	847
Turn Type	Split	NA	Split	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	4	4	8	8	1	5	2	8	1	6
Permitted Phases					8			2		
Detector Phase	4	4	8	8	1	5	2	8	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	34.8	34.8	9.6	9.6	27.8	34.8	9.6	24.8
Total Split (s)	14.6	14.6	34.8	34.8	39.0	9.6	31.6	34.8	39.0	61.0
Total Split (%)	12.2%	12.2%	29.0%	29.0%	32.5%	8.0%	26.3%	29.0%	32.5%	50.8%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	5.8	4.6	4.6	5.8	5.8	4.6	5.8
Lead/Lag					Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 114.2
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Central Av. & Driveway/El Prado Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	12	8	627	3	481	6	752	805	620	847	18
Future Volume (veh/h)	17	12	8	627	3	481	6	752	805	620	847	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	18	12	3	655	0	246	6	783	499	646	882	17
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	93	79	20	725	0	807	12	783	688	494	2615	50
Arrive On Green	0.06	0.06	0.06	0.22	0.00	0.22	0.01	0.23	0.23	0.31	0.53	0.53
Sat Flow, veh/h	1619	1390	347	3238	0	1523	1619	3420	1515	1619	4963	96
Grp Volume(v), veh/h	18	0	15	655	0	246	6	783	499	646	582	317
Grp Sat Flow(s),veh/h/ln	1619	0	1737	1619	0	1523	1619	1710	1515	1619	1638	1783
Q Serve(g_s), s	1.2	0.0	0.9	22.2	0.0	10.2	0.4	25.8	25.8	34.4	11.5	11.5
Cycle Q Clear(g_c), s	1.2	0.0	0.9	22.2	0.0	10.2	0.4	25.8	25.8	34.4	11.5	11.5
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	93	0	99	725	0	807	12	783	688	494	1726	939
V/C Ratio(X)	0.19	0.00	0.15	0.90	0.00	0.30	0.49	1.00	0.72	1.31	0.34	0.34
Avail Cap(c_a), veh/h	144	0	154	834	0	858	72	783	688	494	1726	939
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.6	0.0	50.5	42.5	0.0	14.9	55.7	43.4	23.9	39.1	15.3	15.3
Incr Delay (d2), s/veh	0.4	0.0	0.3	11.2	0.0	0.1	10.7	32.1	6.5	152.0	0.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.4	9.5	0.0	3.2	0.2	13.9	15.1	33.8	4.1	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.0	0.0	50.8	53.8	0.0	15.0	66.4	75.5	30.5	191.2	15.9	16.3
LnGrp LOS	D	A	D	D	A	B	E	E	C	F	B	B
Approach Vol, veh/h		33			901			1288			1545	
Approach Delay, s/veh		50.9			43.2			58.0			89.2	
Approach LOS		D			D			E			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	39.0	31.6		11.0	5.5	65.1		31.0				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		5.8				
Max Green Setting (Gmax), s	34.4	25.8		10.0	5.0	55.2		29.0				
Max Q Clear Time (g_c+I1), s	36.4	27.8		3.2	2.4	13.5		24.2				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	6.1		1.0				

Intersection Summary		
HCM 6th Ctrl Delay		67.2
HCM 6th LOS		E

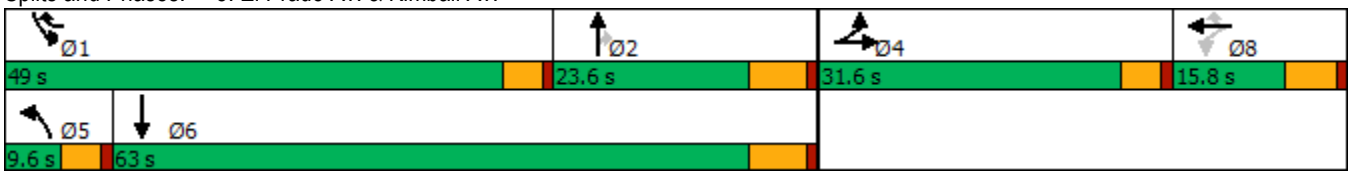
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	33	14	25	5	787	4	268	33	869	322
Future Volume (vph)	33	14	25	5	787	4	268	33	869	322
Turn Type	Split	NA	Perm	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	4	4		8	1	5	2		1	6
Permitted Phases			8		8			2		
Detector Phase	4	4	8	8	1	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	15.8	15.8	9.6	9.6	16.2	16.2	9.6	24.2
Total Split (s)	31.6	31.6	15.8	15.8	49.0	9.6	23.6	23.6	49.0	63.0
Total Split (%)	26.3%	26.3%	13.2%	13.2%	40.8%	8.0%	19.7%	19.7%	40.8%	52.5%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		5.8	4.6	4.6	6.2	6.2	4.6	6.2
Lead/Lag					Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 94.2
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: El Prado Av. & Kimball Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	14	5	25	5	787	4	268	33	869	322	11
Future Volume (veh/h)	33	14	5	25	5	787	4	268	33	869	322	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	35	15	3	27	5	392	4	285	31	924	343	11
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	124	112	22	145	27	823	9	311	263	714	2056	66
Arrive On Green	0.08	0.08	0.08	0.10	0.10	0.10	0.01	0.17	0.17	0.44	0.61	0.61
Sat Flow, veh/h	1619	1456	291	1457	270	1518	1619	1800	1525	1619	3379	108
Grp Volume(v), veh/h	35	0	18	32	0	392	4	285	31	924	173	181
Grp Sat Flow(s),veh/h/ln	1619	0	1748	1727	0	1518	1619	1800	1525	1619	1710	1777
Q Serve(g_s), s	2.1	0.0	1.0	1.7	0.0	10.0	0.2	15.7	1.7	44.4	4.4	4.5
Cycle Q Clear(g_c), s	2.1	0.0	1.0	1.7	0.0	10.0	0.2	15.7	1.7	44.4	4.4	4.5
Prop In Lane	1.00		0.17	0.84		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	124	0	134	171	0	823	9	311	263	714	1040	1081
V/C Ratio(X)	0.28	0.00	0.13	0.19	0.00	0.48	0.47	0.92	0.12	1.29	0.17	0.17
Avail Cap(c_a), veh/h	434	0	468	171	0	823	80	311	263	714	1040	1081
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	0.0	43.4	41.6	0.0	14.4	50.0	41.0	35.2	28.2	8.6	8.6
Incr Delay (d2), s/veh	1.2	0.0	0.4	0.5	0.0	0.4	14.2	33.6	0.9	142.9	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.4	0.7	0.0	5.0	0.1	9.5	0.7	43.5	1.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.1	0.0	43.8	42.2	0.0	14.8	64.2	74.5	36.1	171.1	8.9	8.9
LnGrp LOS	D	A	D	D	A	B	E	E	D	F	A	A
Approach Vol, veh/h		53			424			320			1278	
Approach Delay, s/veh		44.7			16.9			70.7			126.2	
Approach LOS		D			B			E			F	

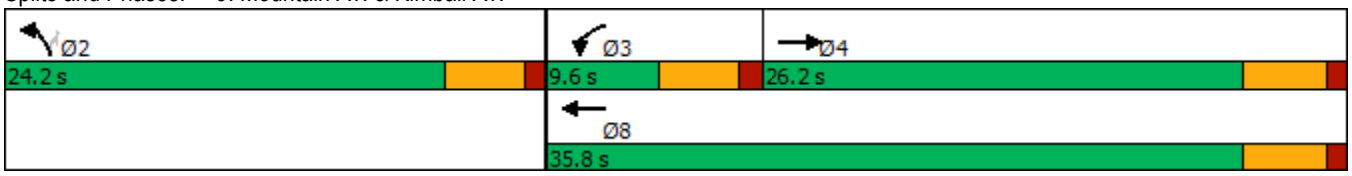
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	49.0	23.6		12.3	5.1	67.5		15.8				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		5.8				
Max Green Setting (Gmax), s	44.4	17.4		27.0	5.0	56.8		10.0				
Max Q Clear Time (g_c+I1), s	46.4	17.7		4.1	2.2	6.5		12.0				
Green Ext Time (p_c), s	0.0	0.0		0.1	0.0	1.9		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		93.2	
HCM 6th LOS		F	

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	907	24	651	178	84
Future Volume (vph)	907	24	651	178	84
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	4	3	8	2	
Permitted Phases					2
Detector Phase	4	3	8	2	2
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	24.7	9.6	14.7	23.6	23.6
Total Split (s)	26.2	9.6	35.8	24.2	24.2
Total Split (%)	43.7%	16.0%	59.7%	40.3%	40.3%
Yellow Time (s)	3.7	3.6	3.7	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.6	4.7	4.6	4.6
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	Max	None	Max	None	None

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 53.1
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 9: Mountain Av. & Kimball Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	907	68	24	651	178	84
Future Volume (veh/h)	907	68	24	651	178	84
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1800	1800	1700	1800	1700	1800
Adj Flow Rate, veh/h	975	71	26	700	191	71
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1610	117	49	2121	315	296
Arrive On Green	0.50	0.50	0.03	0.62	0.19	0.19
Sat Flow, veh/h	3322	235	1619	3510	1619	1525
Grp Volume(v), veh/h	516	530	26	700	191	71
Grp Sat Flow(s),veh/h/ln	1710	1758	1619	1710	1619	1525
Q Serve(g_s), s	10.9	10.9	0.8	4.9	5.4	2.0
Cycle Q Clear(g_c), s	10.9	10.9	0.8	4.9	5.4	2.0
Prop In Lane		0.13	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	852	876	49	2121	315	296
V/C Ratio(X)	0.61	0.61	0.53	0.33	0.61	0.24
Avail Cap(c_a), veh/h	852	876	161	2121	633	596
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.0	9.0	24.0	4.5	18.5	17.1
Incr Delay (d2), s/veh	3.2	3.1	3.3	0.4	1.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	3.3	0.3	0.9	1.8	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.2	12.1	27.2	5.0	20.3	17.5
LnGrp LOS	B	B	C	A	C	B
Approach Vol, veh/h	1046			726	262	
Approach Delay, s/veh	12.2			5.8	19.6	
Approach LOS	B			A	B	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		14.3	6.1	29.7		35.8
Change Period (Y+Rc), s		4.6	4.6	* 4.7		* 4.7
Max Green Setting (Gmax), s		19.6	5.0	* 22		* 31
Max Q Clear Time (g_c+I1), s		7.4	2.8	12.9		6.9
Green Ext Time (p_c), s		0.6	0.0	3.9		4.5

Intersection Summary	
HCM 6th Ctrl Delay	10.8
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	3.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	47	57	90	120	46	36
Future Vol, veh/h	47	57	90	120	46	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	56	68	107	143	55	43

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	332	179	0	0	250	0
Stage 1	179	-	-	-	-	-
Stage 2	153	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	667	869	-	-	1327	-
Stage 1	857	-	-	-	-	-
Stage 2	880	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	640	869	-	-	1327	-
Mov Cap-2 Maneuver	680	-	-	-	-	-
Stage 1	857	-	-	-	-	-
Stage 2	844	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.1	0	4.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	680	869	1327	-
HCM Lane V/C Ratio	-	-	0.082	0.078	0.041	-
HCM Control Delay (s)	-	-	10.8	9.5	7.8	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0.3	0.1	-

Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	42	168	0	17	66
Future Vol, veh/h	0	42	168	0	17	66
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	46	183	0	18	72

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	291	183	0	0	183	0
Stage 1	183	-	-	-	-	-
Stage 2	108	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	704	865	-	-	1404	-
Stage 1	853	-	-	-	-	-
Stage 2	921	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	695	865	-	-	1404	-
Mov Cap-2 Maneuver	717	-	-	-	-	-
Stage 1	853	-	-	-	-	-
Stage 2	909	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	1.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	865	1404	-
HCM Lane V/C Ratio	-	-	0.053	0.013	-
HCM Control Delay (s)	-	-	9.4	7.6	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	5.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	29	103	65	11	40	26
Future Vol, veh/h	29	103	65	11	40	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	32	112	71	12	43	28

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	191	77	0	0	83	0
Stage 1	77	-	-	-	-	-
Stage 2	114	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	803	990	-	-	1527	-
Stage 1	951	-	-	-	-	-
Stage 2	916	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	781	990	-	-	1527	-
Mov Cap-2 Maneuver	774	-	-	-	-	-
Stage 1	951	-	-	-	-	-
Stage 2	890	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	4.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	933	1527	-
HCM Lane V/C Ratio	-	-	0.154	0.028	-
HCM Control Delay (s)	-	-	9.6	7.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-

Intersection	
Int Delay, s/veh	2.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	29	19	57	11	7	48
Future Vol, veh/h	29	19	57	11	7	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	32	21	62	12	8	52

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	136	68	0	0	74	0
Stage 1	68	-	-	-	-	-
Stage 2	68	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	862	1001	-	-	1538	-
Stage 1	960	-	-	-	-	-
Stage 2	960	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	858	1001	-	-	1538	-
Mov Cap-2 Maneuver	829	-	-	-	-	-
Stage 1	960	-	-	-	-	-
Stage 2	955	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	0.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	889	1538	-
HCM Lane V/C Ratio	-	-	0.059	0.005	-
HCM Control Delay (s)	-	-	9.3	7.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	57	21	115	30	39	475
Future Vol, veh/h	57	21	115	30	39	475
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	66	24	134	35	45	552

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	794	152	0	0	169	0
Stage 1	152	-	-	-	-	-
Stage 2	642	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	360	900	-	-	1421	-
Stage 1	881	-	-	-	-	-
Stage 2	528	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	343	900	-	-	1421	-
Mov Cap-2 Maneuver	343	-	-	-	-	-
Stage 1	881	-	-	-	-	-
Stage 2	504	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.2	0	0.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	412	1421	-
HCM Lane V/C Ratio	-	-	0.22	0.032	-
HCM Control Delay (s)	-	-	16.2	7.6	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.8	0.1	-

Intersection	
Intersection Delay, s/veh	16
Intersection LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1	0	120	532	1
Future Vol, veh/h	0	1	0	120	532	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	1	0	130	578	1
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	8.5	8.7	17.6
HCM LOS	A	A	C

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	100%
Vol Thru, %	100%	0%	0%
Vol Right, %	0%	100%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1	120	533
LT Vol	0	0	532
Through Vol	1	0	0
RT Vol	0	120	1
Lane Flow Rate	1	130	579
Geometry Grp	1	1	1
Degree of Util (X)	0.002	0.169	0.713
Departure Headway (Hd)	5.449	4.667	4.433
Convergence, Y/N	Yes	Yes	Yes
Cap	655	768	823
Service Time	3.498	2.7	2.433
HCM Lane V/C Ratio	0.002	0.169	0.704
HCM Control Delay	8.5	8.7	17.6
HCM Lane LOS	A	A	C
HCM 95th-tile Q	0	0.6	6.2

Intersection	
Int Delay, s/veh	1.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	166	0	21	104	0	53
Future Vol, veh/h	166	0	21	104	0	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	180	0	23	113	0	58

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	180	0	339	180
Stage 1	-	-	-	-	180	-
Stage 2	-	-	-	-	159	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1408	-	661	868
Stage 1	-	-	-	-	856	-
Stage 2	-	-	-	-	875	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1408	-	650	868
Mov Cap-2 Maneuver	-	-	-	-	688	-
Stage 1	-	-	-	-	856	-
Stage 2	-	-	-	-	861	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	9.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	868	-	-	1408	-
HCM Lane V/C Ratio	0.066	-	-	0.016	-
HCM Control Delay (s)	9.4	-	-	7.6	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	219	0	3	125	0	8
Future Vol, veh/h	219	0	3	125	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	238	0	3	136	0	9

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	238	0	380	238
Stage 1	-	-	-	-	238	-
Stage 2	-	-	-	-	142	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1341	-	626	806
Stage 1	-	-	-	-	806	-
Stage 2	-	-	-	-	890	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1341	-	625	806
Mov Cap-2 Maneuver	-	-	-	-	668	-
Stage 1	-	-	-	-	806	-
Stage 2	-	-	-	-	888	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	806	-	-	1341	-
HCM Lane V/C Ratio	0.011	-	-	0.002	-
HCM Control Delay (s)	9.5	-	-	7.7	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	227	0	3	128	0	8
Future Vol, veh/h	227	0	3	128	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	247	0	3	139	0	9

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	247	0	392	247
Stage 1	-	-	-	-	247	-
Stage 2	-	-	-	-	145	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1331	-	616	797
Stage 1	-	-	-	-	799	-
Stage 2	-	-	-	-	887	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1331	-	615	797
Mov Cap-2 Maneuver	-	-	-	-	661	-
Stage 1	-	-	-	-	799	-
Stage 2	-	-	-	-	885	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	9.6
HCM LOS			A

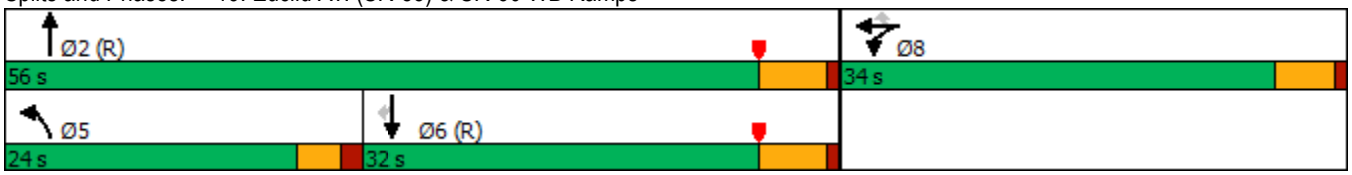
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	797	-	-	1331	-
HCM Lane V/C Ratio	0.011	-	-	0.002	-
HCM Control Delay (s)	9.6	-	-	7.7	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

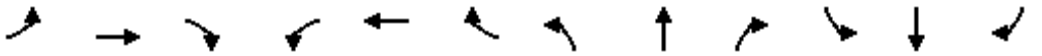
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	591	6	392	245	1040	969	473
Future Volume (vph)	591	6	392	245	1040	969	473
Turn Type	Split	NA	Perm	Prot	NA	NA	Perm
Protected Phases	8	8		5	2	6	
Permitted Phases			8				6
Detector Phase	8	8	8	5	2	6	6
Switch Phase							
Minimum Initial (s)	6.0	6.0	6.0	5.0	10.0	10.0	10.0
Minimum Split (s)	11.0	11.0	11.0	9.5	22.5	22.5	22.5
Total Split (s)	34.0	34.0	34.0	24.0	56.0	32.0	32.0
Total Split (%)	37.8%	37.8%	37.8%	26.7%	62.2%	35.6%	35.6%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.5	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.5	5.5	5.5	5.5
Lead/Lag				Lead		Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 63 (70%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 19: Euclid Av. (SR-83) & SR-60 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	591	6	392	245	1040	0	0	969	473
Future Volume (veh/h)	0	0	0	591	6	392	245	1040	0	0	969	473
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				689	0	153	255	1083	0	0	1009	288
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				798	0	354	286	2393	0	0	1642	732
Arrive On Green				0.22	0.00	0.22	0.32	1.00	0.00	0.00	0.45	0.45
Sat Flow, veh/h				3619	0	1608	1810	3705	0	0	3705	1610
Grp Volume(v), veh/h				689	0	153	255	1083	0	0	1009	288
Grp Sat Flow(s),veh/h/ln				1810	0	1608	1810	1805	0	0	1805	1610
Q Serve(g_s), s				16.5	0.0	7.4	12.1	0.0	0.0	0.0	19.0	10.7
Cycle Q Clear(g_c), s				16.5	0.0	7.4	12.1	0.0	0.0	0.0	19.0	10.7
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				798	0	354	286	2393	0	0	1642	732
V/C Ratio(X)				0.86	0.00	0.43	0.89	0.45	0.00	0.00	0.61	0.39
Avail Cap(c_a), veh/h				1166	0	518	392	2393	0	0	1642	732
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.59	0.59	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				33.8	0.0	30.2	30.0	0.0	0.0	0.0	18.6	16.3
Incr Delay (d2), s/veh				3.4	0.0	0.3	9.1	0.4	0.0	0.0	1.7	1.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.1	0.0	2.7	4.9	0.1	0.0	0.0	7.6	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				37.1	0.0	30.5	39.2	0.4	0.0	0.0	20.3	17.9
LnGrp LOS				D	A	C	D	A	A	A	C	B
Approach Vol, veh/h					842			1338			1297	
Approach Delay, s/veh					35.9			7.8			19.8	
Approach LOS					D			A			B	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	65.2		18.7	46.4		24.8						
Change Period (Y+Rc), s	5.5		4.5	5.5		5.0						
Max Green Setting (Gmax), s	50.5		19.5	26.5		29.0						
Max Q Clear Time (g_c+I1), s	2.0		14.1	21.0		18.5						
Green Ext Time (p_c), s	14.3		0.2	4.0		1.3						

Intersection Summary		
HCM 6th Ctrl Delay	19.1	
HCM 6th LOS	B	

Notes

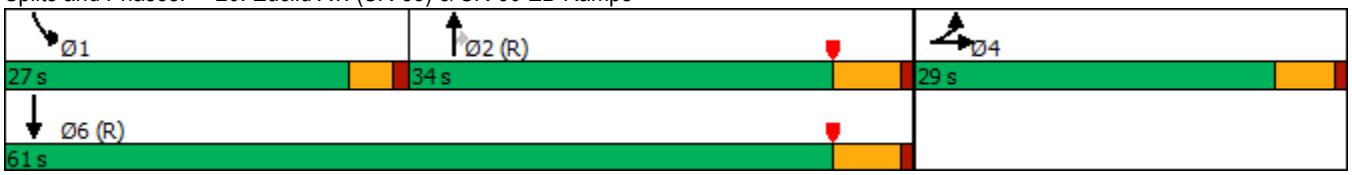
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	400	3	886	579	361	1200
Future Volume (vph)	400	3	886	579	361	1200
Turn Type	Split	NA	NA	Perm	Prot	NA
Protected Phases	4	4	2		1	6
Permitted Phases				2		
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	6.0	6.0	10.0	10.0	5.0	10.0
Minimum Split (s)	11.0	11.0	22.5	22.5	9.0	22.5
Total Split (s)	29.0	29.0	34.0	34.0	27.0	61.0
Total Split (%)	32.2%	32.2%	37.8%	37.8%	30.0%	67.8%
Yellow Time (s)	4.0	4.0	4.5	4.5	3.0	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.5	5.5	4.0	5.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Min	C-Min	None	C-Min

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 20: Euclid Av. (SR-83) & SR-60 EB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	400	3	311	0	0	0	0	886	579	361	1200	0
Future Volume (veh/h)	400	3	311	0	0	0	0	886	579	361	1200	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	330	112	250				0	904	397	368	1224	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	431	124	278				0	1382	602	395	2330	0
Arrive On Green	0.24	0.24	0.24				0.00	0.38	0.38	0.44	1.00	0.00
Sat Flow, veh/h	1810	523	1167				0	3705	1572	1810	3705	0
Grp Volume(v), veh/h	330	0	362				0	904	397	368	1224	0
Grp Sat Flow(s),veh/h/ln	1810	0	1690				0	1805	1572	1810	1805	0
Q Serve(g_s), s	15.3	0.0	18.7				0.0	18.6	18.8	17.4	0.0	0.0
Cycle Q Clear(g_c), s	15.3	0.0	18.7				0.0	18.6	18.8	17.4	0.0	0.0
Prop In Lane	1.00		0.69				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	431	0	402				0	1382	602	395	2330	0
V/C Ratio(X)	0.77	0.00	0.90				0.00	0.65	0.66	0.93	0.53	0.00
Avail Cap(c_a), veh/h	483	0	451				0	1382	602	462	2330	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.69	0.69	0.60	0.60	0.00
Uniform Delay (d), s/veh	32.0	0.0	33.3				0.0	22.9	22.9	24.8	0.0	0.0
Incr Delay (d2), s/veh	5.5	0.0	18.3				0.0	1.7	3.9	15.6	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	0.0	9.2				0.0	7.6	7.1	6.7	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.4	0.0	51.5				0.0	24.5	26.8	40.4	0.5	0.0
LnGrp LOS	D	A	D				A	C	C	D	A	A
Approach Vol, veh/h		692						1301			1592	
Approach Delay, s/veh		44.8						25.2			9.7	
Approach LOS		D						C			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	23.6	40.0		26.4		63.6
Change Period (Y+Rc), s	4.0	5.5		5.0		5.5
Max Green Setting (Gmax), s	23.0	28.5		24.0		55.5
Max Q Clear Time (g_c+I1), s	19.4	20.8		20.7		2.0
Green Ext Time (p_c), s	0.2	5.3		0.7		17.7

Intersection Summary	
HCM 6th Ctrl Delay	22.1
HCM 6th LOS	C

Notes

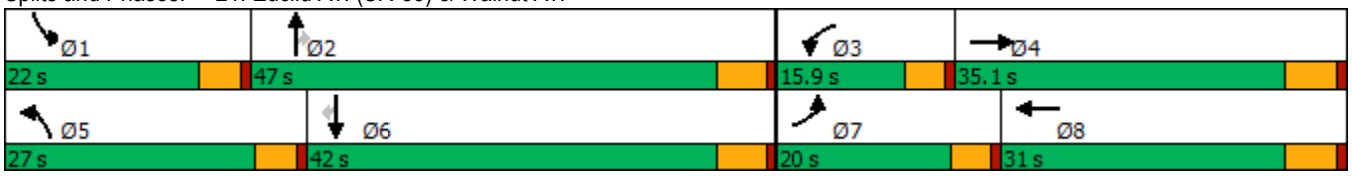
User approved volume balancing among the lanes for turning movement.

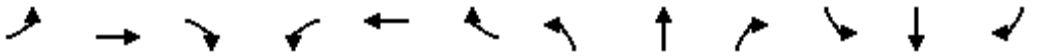
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	103	356	67	356	180	1204	70	253	1079	141
Future Volume (vph)	103	356	67	356	180	1204	70	253	1079	141
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.8	9.6	29.8	9.6	27.4	27.4	9.6	29.4	29.4
Total Split (s)	20.0	35.1	15.9	31.0	27.0	47.0	47.0	22.0	42.0	42.0
Total Split (%)	16.7%	29.3%	13.3%	25.8%	22.5%	39.2%	39.2%	18.3%	35.0%	35.0%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 108.6
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 21: Euclid Av. (SR-83) & Walnut Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	356	134	67	356	135	180	1204	70	253	1079	141
Future Volume (veh/h)	103	356	134	67	356	135	180	1204	70	253	1079	141
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1600	1800	1800
Adj Flow Rate, veh/h	110	379	120	71	379	118	191	1281	47	269	1148	96
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	135	551	172	89	479	147	221	2038	632	330	1916	594
Arrive On Green	0.08	0.22	0.22	0.05	0.19	0.19	0.14	0.41	0.41	0.11	0.39	0.39
Sat Flow, veh/h	1619	2555	798	1619	2561	786	1619	4914	1523	2956	4914	1524
Grp Volume(v), veh/h	110	252	247	71	251	246	191	1281	47	269	1148	96
Grp Sat Flow(s),veh/h/ln	1619	1710	1643	1619	1710	1637	1619	1638	1523	1478	1638	1524
Q Serve(g_s), s	6.7	13.6	13.9	4.3	14.0	14.4	11.6	20.7	1.9	8.9	18.6	4.1
Cycle Q Clear(g_c), s	6.7	13.6	13.9	4.3	14.0	14.4	11.6	20.7	1.9	8.9	18.6	4.1
Prop In Lane	1.00		0.49	1.00		0.48	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	135	368	354	89	320	306	221	2038	632	330	1916	594
V/C Ratio(X)	0.82	0.68	0.70	0.80	0.79	0.80	0.86	0.63	0.07	0.82	0.60	0.16
Avail Cap(c_a), veh/h	249	500	480	182	430	411	362	2038	632	513	1916	594
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.2	36.2	36.3	46.9	38.9	39.0	42.4	23.2	17.7	43.5	24.3	19.9
Incr Delay (d2), s/veh	4.5	2.3	2.8	6.1	6.7	8.1	6.2	1.5	0.2	2.9	1.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	5.6	5.6	1.8	6.2	6.2	4.9	7.8	0.7	3.3	7.1	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.7	38.5	39.1	53.0	45.6	47.1	48.6	24.7	17.9	46.5	25.7	20.5
LnGrp LOS	D	D	D	D	D	D	D	C	B	D	C	C
Approach Vol, veh/h		609			568			1519			1513	
Approach Delay, s/veh		40.8			47.2			27.5			29.1	
Approach LOS		D			D			C			C	

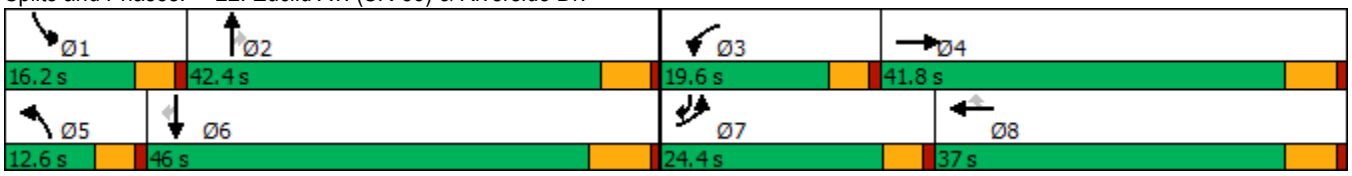
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.8	47.0	10.1	27.4	18.3	44.5	13.0	24.5
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	17.4	41.6	11.3	29.3	22.4	36.6	15.4	25.2
Max Q Clear Time (g_c+I1), s	10.9	22.7	6.3	15.9	13.6	20.6	8.7	16.4
Green Ext Time (p_c), s	0.3	8.7	0.0	2.2	0.2	7.2	0.1	1.8

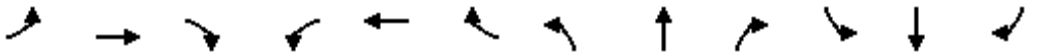
Intersection Summary	
HCM 6th Ctrl Delay	32.6
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	145	440	179	393	62	67	1024	232	134	899	185
Future Volume (vph)	145	440	179	393	62	67	1024	232	134	899	185
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4	3	8		5	2		1	6	7
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	25.8	9.6	31.8	31.8	9.6	30.4	30.4	9.6	34.5	9.6
Total Split (s)	24.4	41.8	19.6	37.0	37.0	12.6	42.4	42.4	16.2	46.0	24.4
Total Split (%)	20.3%	34.8%	16.3%	30.8%	30.8%	10.5%	35.3%	35.3%	13.5%	38.3%	20.3%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 119.8
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Euclid Av. (SR-83) & Riverside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	440	73	179	393	62	67	1024	232	134	899	185
Future Volume (veh/h)	145	440	73	179	393	62	67	1024	232	134	899	185
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	151	458	51	186	409	49	70	1067	188	140	936	102
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	175	473	53	201	1070	477	87	1045	466	155	1189	689
Arrive On Green	0.11	0.30	0.30	0.12	0.31	0.31	0.05	0.31	0.31	0.10	0.35	0.35
Sat Flow, veh/h	1619	1591	177	1619	3420	1524	1619	3420	1525	1619	3420	1506
Grp Volume(v), veh/h	151	0	509	186	409	49	70	1067	188	140	936	102
Grp Sat Flow(s),veh/h/ln	1619	0	1768	1619	1710	1524	1619	1710	1525	1619	1710	1506
Q Serve(g_s), s	11.1	0.0	34.4	13.8	11.3	2.8	5.2	37.0	11.8	10.4	29.8	4.8
Cycle Q Clear(g_c), s	11.1	0.0	34.4	13.8	11.3	2.8	5.2	37.0	11.8	10.4	29.8	4.8
Prop In Lane	1.00		0.10	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	175	0	526	201	1070	477	87	1045	466	155	1189	689
V/C Ratio(X)	0.86	0.00	0.97	0.93	0.38	0.10	0.81	1.02	0.40	0.90	0.79	0.15
Avail Cap(c_a), veh/h	265	0	526	201	1070	477	107	1045	466	155	1189	689
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.1	0.0	42.0	52.5	32.5	29.5	56.7	42.0	33.3	54.2	35.5	19.2
Incr Delay (d2), s/veh	11.3	0.0	31.2	43.0	0.2	0.1	24.4	33.3	2.6	44.1	5.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	0.0	18.9	7.8	4.6	1.0	2.6	19.4	4.6	6.1	12.9	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.4	0.0	73.2	95.5	32.7	29.6	81.1	75.3	35.9	98.3	40.8	19.7
LnGrp LOS	E	A	E	F	C	C	F	F	D	F	D	B
Approach Vol, veh/h		660			644			1325			1178	
Approach Delay, s/veh		71.2			50.6			70.0			45.8	
Approach LOS		E			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.2	43.5	19.6	41.8	11.1	48.6	17.7	43.7
Change Period (Y+Rc), s	4.6	* 6.5	4.6	5.8	4.6	6.5	4.6	5.8
Max Green Setting (Gmax), s	11.6	* 37	15.0	36.0	8.0	39.5	19.8	31.2
Max Q Clear Time (g_c+I1), s	12.4	39.0	15.8	36.4	7.2	31.8	13.1	13.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	3.8	0.1	2.4

Intersection Summary	
HCM 6th Ctrl Delay	59.4
HCM 6th LOS	E

Notes

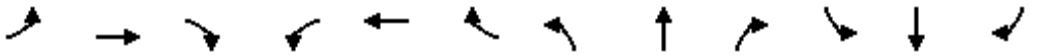
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	93	273	47	76	108	39	1218	221	24	1020	69
Future Volume (vph)	93	273	47	76	108	39	1218	221	24	1020	69
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	28.8	28.8	28.8	33.8	33.8	9.6	24.2	24.2	9.6	31.5	31.5
Total Split (s)	44.0	44.0	44.0	44.0	44.0	12.4	65.0	65.0	11.0	63.6	63.6
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	10.3%	54.2%	54.2%	9.2%	53.0%	53.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	3.6	4.2	4.2	3.6	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8		5.8	4.6	5.2	5.2	4.6	6.5	6.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 103.2
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: Euclid Av. (SR-83) & Chino Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	273	47	76	108	9	39	1218	221	24	1020	69
Future Volume (veh/h)	93	273	47	76	108	9	39	1218	221	24	1020	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	100	294	28	82	116	6	42	1310	167	26	1097	41
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	269	491	416	121	152	7	53	1872	818	40	1844	806
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.55	0.55	0.02	0.54	0.54
Sat Flow, veh/h	1218	1800	1525	272	558	25	1619	3420	1494	1619	3420	1494
Grp Volume(v), veh/h	100	294	28	204	0	0	42	1310	167	26	1097	41
Grp Sat Flow(s),veh/h/ln	1218	1800	1525	856	0	0	1619	1710	1494	1619	1710	1494
Q Serve(g_s), s	0.0	15.5	1.5	11.6	0.0	0.0	2.8	30.7	6.2	1.7	23.8	1.4
Cycle Q Clear(g_c), s	13.3	15.5	1.5	27.1	0.0	0.0	2.8	30.7	6.2	1.7	23.8	1.4
Prop In Lane	1.00		1.00	0.40		0.03	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	269	491	416	280	0	0	53	1872	818	40	1844	806
V/C Ratio(X)	0.37	0.60	0.07	0.73	0.00	0.00	0.79	0.70	0.20	0.64	0.59	0.05
Avail Cap(c_a), veh/h	362	629	533	388	0	0	116	1872	818	95	1844	806
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.7	34.5	29.4	41.6	0.0	0.0	52.4	18.1	12.6	52.8	17.1	11.9
Incr Delay (d2), s/veh	0.9	1.2	0.1	4.3	0.0	0.0	9.1	2.2	0.6	6.2	1.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	6.7	0.5	5.5	0.0	0.0	1.2	10.9	2.0	0.7	8.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.6	35.7	29.5	45.9	0.0	0.0	61.6	20.4	13.2	59.0	18.5	12.0
LnGrp LOS	C	D	C	D	A	A	E	C	B	E	B	B
Approach Vol, veh/h		422			204			1519			1164	
Approach Delay, s/veh		35.0			45.9			20.7			19.2	
Approach LOS		C			D			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	66.3		35.6	8.2	65.4		35.6				
Change Period (Y+Rc), s	4.6	* 6.5		5.8	4.6	6.5		5.8				
Max Green Setting (Gmax), s	6.4	* 60		38.2	7.8	57.1		38.2				
Max Q Clear Time (g_c+I1), s	3.7	32.7		17.5	4.8	25.8		29.1				
Green Ext Time (p_c), s	0.0	10.5		1.9	0.0	8.1		0.7				

Intersection Summary		
HCM 6th Ctrl Delay		23.5
HCM 6th LOS		C

Notes

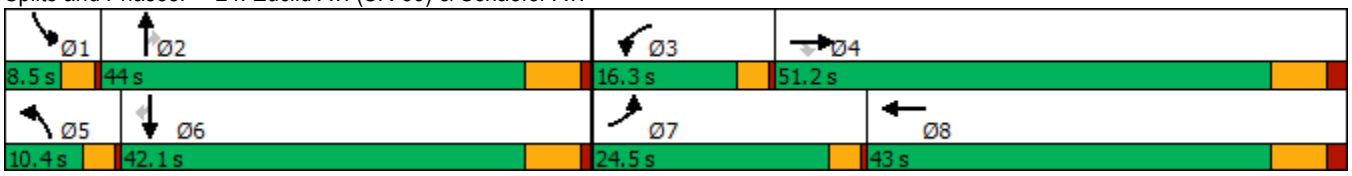
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

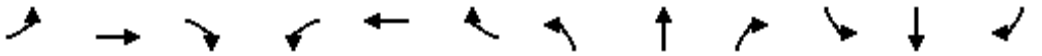
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	280	276	178	76	64	82	1147	80	28	1038	111
Future Volume (vph)	280	276	178	76	64	82	1147	80	28	1038	111
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.5	42.0	42.0	13.5	43.0	8.5	33.0	33.0	8.5	28.0	28.0
Total Split (s)	24.5	51.2	51.2	16.3	43.0	10.4	44.0	44.0	8.5	42.1	42.1
Total Split (%)	20.4%	42.7%	42.7%	13.6%	35.8%	8.7%	36.7%	36.7%	7.1%	35.1%	35.1%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	7.0	7.0	3.5	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 95.2
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Euclid Av. (SR-83) & Schaefer Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	280	276	178	76	64	25	82	1147	80	28	1038	111
Future Volume (veh/h)	280	276	178	76	64	25	82	1147	80	28	1038	111
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	283	279	139	77	65	20	83	1159	63	28	1048	82
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	321	349	296	171	133	41	103	1398	624	48	1281	571
Arrive On Green	0.20	0.19	0.19	0.11	0.10	0.10	0.06	0.41	0.41	0.03	0.37	0.37
Sat Flow, veh/h	1619	1800	1525	1619	1321	406	1619	3420	1525	1619	3420	1525
Grp Volume(v), veh/h	283	279	139	77	0	85	83	1159	63	28	1048	82
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1619	0	1727	1619	1710	1525	1619	1710	1525
Q Serve(g_s), s	12.9	11.3	6.2	3.4	0.0	3.5	3.9	23.1	1.9	1.3	21.1	2.7
Cycle Q Clear(g_c), s	12.9	11.3	6.2	3.4	0.0	3.5	3.9	23.1	1.9	1.3	21.1	2.7
Prop In Lane	1.00		1.00	1.00		0.24	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	321	349	296	171	0	174	103	1398	624	48	1281	571
V/C Ratio(X)	0.88	0.80	0.47	0.45	0.00	0.49	0.81	0.83	0.10	0.59	0.82	0.14
Avail Cap(c_a), veh/h	446	1044	885	272	0	816	147	1705	761	106	1620	723
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.7	29.3	27.2	32.0	0.0	32.4	35.2	20.1	13.9	36.5	21.5	15.8
Incr Delay (d2), s/veh	11.2	3.2	0.9	0.7	0.0	1.6	12.7	3.0	0.1	4.3	2.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	4.8	2.1	1.3	0.0	1.5	1.7	8.0	0.6	0.5	7.5	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.9	32.5	28.1	32.7	0.0	34.0	47.9	23.1	14.0	40.8	24.2	15.9
LnGrp LOS	D	C	C	C	A	C	D	C	B	D	C	B
Approach Vol, veh/h		701			162			1305			1158	
Approach Delay, s/veh		35.0			33.4			24.3			24.0	
Approach LOS		D			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.7	37.2	11.5	21.8	8.4	34.5	18.6	14.7
Change Period (Y+Rc), s	3.5	6.0	3.5	7.0	3.5	6.0	3.5	7.0
Max Green Setting (Gmax), s	5.0	38.0	12.8	44.2	6.9	36.1	21.0	36.0
Max Q Clear Time (g_c+I1), s	3.3	25.1	5.4	13.3	5.9	23.1	14.9	5.5
Green Ext Time (p_c), s	0.0	6.0	0.0	1.5	0.0	5.5	0.2	0.3

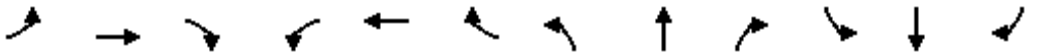
Intersection Summary	
HCM 6th Ctrl Delay	26.9
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	265	463	280	41	252	141	1099	72	82	1114	175
Future Volume (vph)	265	463	280	41	252	141	1099	72	82	1114	175
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	46.0	46.0	46.0	49.0	49.0	8.5	29.0	29.0	8.5	40.0	40.0
Total Split (s)	52.0	52.0	52.0	52.0	52.0	17.0	54.8	54.8	13.2	51.0	51.0
Total Split (%)	43.3%	43.3%	43.3%	43.3%	43.3%	14.2%	45.7%	45.7%	11.0%	42.5%	42.5%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 114.8
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 25: Euclid Av. (SR-83) & Edison Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	265	463	280	41	252	34	141	1099	72	82	1114	175
Future Volume (veh/h)	265	463	280	41	252	34	141	1099	72	82	1114	175
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	279	487	213	43	265	30	148	1157	68	86	1173	152
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	331	690	585	172	608	69	172	1405	625	106	1265	564
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.11	0.41	0.41	0.07	0.37	0.37
Sat Flow, veh/h	1040	1800	1525	716	1586	179	1619	3420	1522	1619	3420	1525
Grp Volume(v), veh/h	279	487	213	43	0	295	148	1157	68	86	1173	152
Grp Sat Flow(s),veh/h/ln	1040	1800	1525	716	0	1765	1619	1710	1522	1619	1710	1525
Q Serve(g_s), s	30.5	26.9	11.8	6.3	0.0	14.5	10.6	35.4	3.2	6.2	38.6	8.2
Cycle Q Clear(g_c), s	45.0	26.9	11.8	33.2	0.0	14.5	10.6	35.4	3.2	6.2	38.6	8.2
Prop In Lane	1.00		1.00	1.00		0.10	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	331	690	585	172	0	677	172	1405	625	106	1265	564
V/C Ratio(X)	0.84	0.71	0.36	0.25	0.00	0.44	0.86	0.82	0.11	0.81	0.93	0.27
Avail Cap(c_a), veh/h	331	690	585	172	0	677	186	1422	633	134	1311	585
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.0	30.6	25.9	44.6	0.0	26.8	51.6	30.8	21.3	54.2	35.5	25.9
Incr Delay (d2), s/veh	17.5	3.3	0.4	0.8	0.0	0.4	27.8	4.0	0.1	20.4	11.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.5	11.7	4.2	1.1	0.0	5.9	5.4	14.1	1.1	3.0	16.7	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.5	33.9	26.3	45.4	0.0	27.2	79.5	34.8	21.4	74.6	46.7	26.1
LnGrp LOS	E	C	C	D	A	C	E	C	C	E	D	C
Approach Vol, veh/h		979			338			1373			1411	
Approach Delay, s/veh		40.1			29.6			39.0			46.2	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.2	54.2		52.0	16.0	49.4		52.0				
Change Period (Y+Rc), s	3.5	6.0		7.0	3.5	6.0		7.0				
Max Green Setting (Gmax), s	9.7	48.8		45.0	13.5	45.0		45.0				
Max Q Clear Time (g_c+I1), s	8.2	37.4		47.0	12.6	40.6		35.2				
Green Ext Time (p_c), s	0.0	5.6		0.0	0.0	2.8		1.3				

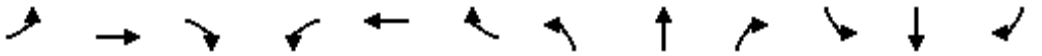
Intersection Summary												
HCM 6th Ctrl Delay			41.0									
HCM 6th LOS			D									

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	37	157	204	8	21	106	1139	17	44	1263	62
Future Volume (vph)	37	157	204	8	21	106	1139	17	44	1263	62
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	46.8	46.8	46.8	46.8	46.8	8.5	30.7	30.7	8.5	37.7	37.7
Total Split (s)	46.8	46.8	46.8	46.8	46.8	14.0	63.2	63.2	10.0	59.2	59.2
Total Split (%)	39.0%	39.0%	39.0%	39.0%	39.0%	11.7%	52.7%	52.7%	8.3%	49.3%	49.3%
Yellow Time (s)	4.3	4.3	4.3	4.3	4.3	3.0	4.7	4.7	3.0	4.7	4.7
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.8	4.8	3.5	5.7	5.7	3.5	5.7	5.7
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 85.5
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 26: Euclid Av. (SR-83) & Eucalyptus Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	157	204	8	21	9	106	1139	17	44	1263	62
Future Volume (veh/h)	37	157	204	8	21	9	106	1139	17	44	1263	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	42	176	113	9	24	7	119	1280	18	49	1419	58
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	282	256	217	166	190	56	149	2014	898	74	1856	811
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.09	0.59	0.59	0.05	0.54	0.54
Sat Flow, veh/h	1322	1800	1525	1046	1339	391	1619	3420	1525	1619	3420	1494
Grp Volume(v), veh/h	42	176	113	9	0	31	119	1280	18	49	1419	58
Grp Sat Flow(s),veh/h/ln	1322	1800	1525	1046	0	1730	1619	1710	1525	1619	1710	1494
Q Serve(g_s), s	1.8	5.8	4.3	0.5	0.0	1.0	4.5	15.4	0.3	1.9	20.3	1.2
Cycle Q Clear(g_c), s	2.8	5.8	4.3	6.3	0.0	1.0	4.5	15.4	0.3	1.9	20.3	1.2
Prop In Lane	1.00		1.00	1.00		0.23	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	282	256	217	166	0	246	149	2014	898	74	1856	811
V/C Ratio(X)	0.15	0.69	0.52	0.05	0.00	0.13	0.80	0.64	0.02	0.66	0.76	0.07
Avail Cap(c_a), veh/h	980	1206	1022	718	0	1159	271	3136	1399	168	2918	1275
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.7	25.6	24.9	28.6	0.0	23.5	27.9	8.5	5.4	29.4	11.2	6.8
Incr Delay (d2), s/veh	0.2	2.4	1.4	0.1	0.0	0.2	7.2	0.3	0.0	7.3	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.4	1.5	0.1	0.0	0.4	1.8	3.3	0.1	0.8	5.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.9	28.0	26.4	28.7	0.0	23.7	35.2	8.8	5.4	36.7	11.9	6.9
LnGrp LOS	C	C	C	C	A	C	D	A	A	D	B	A
Approach Vol, veh/h		331			40			1417			1526	
Approach Delay, s/veh		27.0			24.8			11.0			12.5	
Approach LOS		C			C			B			B	

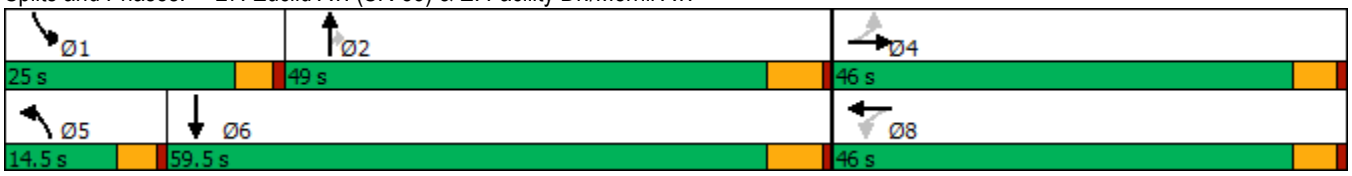
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.4	42.6		13.7	9.3	39.7		13.7				
Change Period (Y+Rc), s	3.5	5.7		4.8	3.5	5.7		4.8				
Max Green Setting (Gmax), s	6.5	57.5		42.0	10.5	53.5		42.0				
Max Q Clear Time (g_c+I1), s	3.9	17.4		7.8	6.5	22.3		8.3				
Green Ext Time (p_c), s	0.0	10.5		1.1	0.1	11.7		0.1				

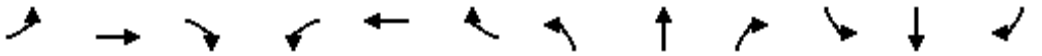
Intersection Summary			
HCM 6th Ctrl Delay		13.4	
HCM 6th LOS		B	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	11	29	185	2	4	1204	228	251	1181
Future Volume (vph)	11	29	185	2	4	1204	228	251	1181
Turn Type	Perm	NA	Perm	NA	Prot	NA	Perm	Prot	NA
Protected Phases		4		8	5	2		1	6
Permitted Phases	4		8				2		
Detector Phase	4	4	8	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	15.0	15.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	10.0	10.0	46.0	46.0	14.5	28.0	28.0	14.5	28.0
Total Split (s)	46.0	46.0	46.0	46.0	14.5	49.0	49.0	25.0	59.5
Total Split (%)	38.3%	38.3%	38.3%	38.3%	12.1%	40.8%	40.8%	20.8%	49.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.5	5.0	5.0	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	4.5	6.0	6.0	4.5	6.0
Lead/Lag					Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 109.4
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 27: Euclid Av. (SR-83) & E. Facility Dr./Merrill Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	29	12	185	2	136	4	1204	228	251	1181	1
Future Volume (veh/h)	11	29	12	185	2	136	4	1204	228	251	1181	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	12	32	12	203	2	139	4	1323	186	276	1298	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	106	262	89	277	2	152	17	1396	623	302	1999	0
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.01	0.41	0.41	0.19	0.58	0.00
Sat Flow, veh/h	249	1023	347	867	9	594	1619	3420	1525	1619	3510	0
Grp Volume(v), veh/h	56	0	0	344	0	0	4	1323	186	276	1298	0
Grp Sat Flow(s),veh/h/ln	1619	0	0	1470	0	0	1619	1710	1525	1619	1710	0
Q Serve(g_s), s	0.0	0.0	0.0	21.0	0.0	0.0	0.3	38.8	8.5	17.4	26.4	0.0
Cycle Q Clear(g_c), s	2.6	0.0	0.0	23.6	0.0	0.0	0.3	38.8	8.5	17.4	26.4	0.0
Prop In Lane	0.21		0.21	0.59		0.40	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	456	0	0	431	0	0	17	1396	623	302	1999	0
V/C Ratio(X)	0.12	0.00	0.00	0.80	0.00	0.00	0.24	0.95	0.30	0.91	0.65	0.00
Avail Cap(c_a), veh/h	677	0	0	630	0	0	156	1414	631	319	1999	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.8	0.0	0.0	37.3	0.0	0.0	51.0	29.7	20.7	41.5	14.5	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.6	0.0	0.0	2.6	13.4	0.3	27.5	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	8.2	0.0	0.0	0.1	16.7	2.8	8.8	8.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.8	0.0	0.0	40.0	0.0	0.0	53.6	43.0	21.0	68.9	15.2	0.0
LnGrp LOS	C	A	A	D	A	A	D	D	C	E	B	A
Approach Vol, veh/h		56			344			1513			1574	
Approach Delay, s/veh		29.8			40.0			40.4			24.6	
Approach LOS		C			D			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.9	48.5		31.6	5.6	66.8		31.6				
Change Period (Y+Rc), s	4.5	6.0		5.0	4.5	6.0		5.0				
Max Green Setting (Gmax), s	20.5	43.0		41.0	10.0	53.5		41.0				
Max Q Clear Time (g_c+I1), s	19.4	40.8		4.6	2.3	28.4		25.6				
Green Ext Time (p_c), s	0.1	1.6		0.2	0.0	9.3		1.0				

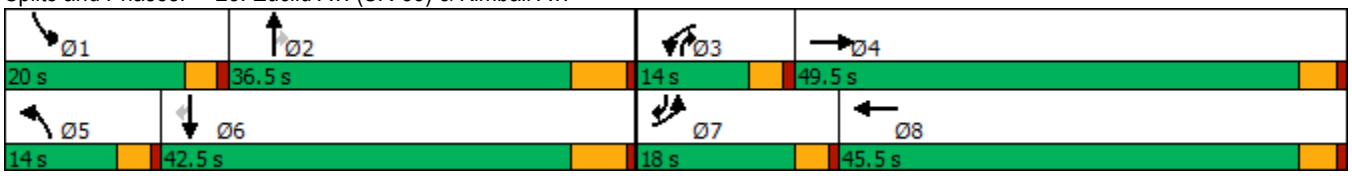
Intersection Summary			
HCM 6th Ctrl Delay		33.0	
HCM 6th LOS		C	

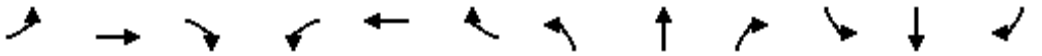
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	348	743	60	305	60	870	40	412	751	230
Future Volume (vph)	348	743	60	305	60	870	40	412	751	230
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	3	8	5	2	3	1	6	7
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	7
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	14.0	49.5	14.0	45.5	14.0	36.0	14.0	9.0	33.0	14.0
Total Split (s)	18.0	49.5	14.0	45.5	14.0	36.5	14.0	20.0	42.5	18.0
Total Split (%)	15.0%	41.3%	11.7%	37.9%	11.7%	30.4%	11.7%	16.7%	35.4%	15.0%
Yellow Time (s)	3.0	3.5	3.0	3.5	3.0	5.0	3.0	3.0	5.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.5	4.0	4.5	4.0	6.0	4.0	4.0	6.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	None	Min	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 105.9
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 28: Euclid Av. (SR-83) & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	348	743	45	60	305	165	60	870	40	412	751	230
Future Volume (veh/h)	348	743	45	60	305	165	60	870	40	412	751	230
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1600	1800	1800	1700	1800	1800	1700	1800	1800	1600	1800	1800
Adj Flow Rate, veh/h	359	766	43	62	314	132	62	897	26	425	774	139
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	411	938	53	133	538	222	133	988	566	472	1254	771
Arrive On Green	0.14	0.28	0.28	0.08	0.23	0.23	0.08	0.29	0.29	0.16	0.37	0.37
Sat Flow, veh/h	2956	3292	185	1619	2362	973	1619	3420	1525	2956	3420	1524
Grp Volume(v), veh/h	359	398	411	62	225	221	62	897	26	425	774	139
Grp Sat Flow(s),veh/h/ln	1478	1710	1767	1619	1710	1625	1619	1710	1525	1478	1710	1524
Q Serve(g_s), s	11.9	21.7	21.8	3.7	11.8	12.2	3.7	25.3	1.1	14.1	18.6	5.0
Cycle Q Clear(g_c), s	11.9	21.7	21.8	3.7	11.8	12.2	3.7	25.3	1.1	14.1	18.6	5.0
Prop In Lane	1.00		0.10	1.00		0.60	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	411	487	503	133	390	370	133	988	566	472	1254	771
V/C Ratio(X)	0.87	0.82	0.82	0.47	0.58	0.60	0.47	0.91	0.05	0.90	0.62	0.18
Avail Cap(c_a), veh/h	413	768	793	161	699	665	161	1040	589	472	1254	771
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.3	33.4	33.4	43.9	34.4	34.6	43.9	34.4	20.2	41.4	26.0	13.5
Incr Delay (d2), s/veh	17.6	3.8	3.7	0.9	0.5	0.6	0.9	11.1	0.0	19.7	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	9.0	9.3	1.5	4.7	4.6	1.4	11.1	0.4	6.1	7.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.9	37.2	37.2	44.9	34.9	35.1	44.9	45.4	20.2	61.0	26.9	13.6
LnGrp LOS	E	D	D	D	C	D	D	D	C	E	C	B
Approach Vol, veh/h		1168			508			985			1338	
Approach Delay, s/veh		44.2			36.2			44.7			36.4	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	35.0	12.2	33.1	12.2	42.7	17.9	27.3
Change Period (Y+Rc), s	4.0	6.0	4.0	4.5	4.0	6.0	4.0	4.5
Max Green Setting (Gmax), s	16.0	30.5	10.0	45.0	10.0	36.5	14.0	41.0
Max Q Clear Time (g_c+I1), s	16.1	27.3	5.7	23.8	5.7	20.6	13.9	14.2
Green Ext Time (p_c), s	0.0	1.6	0.0	4.6	0.0	4.6	0.0	1.5

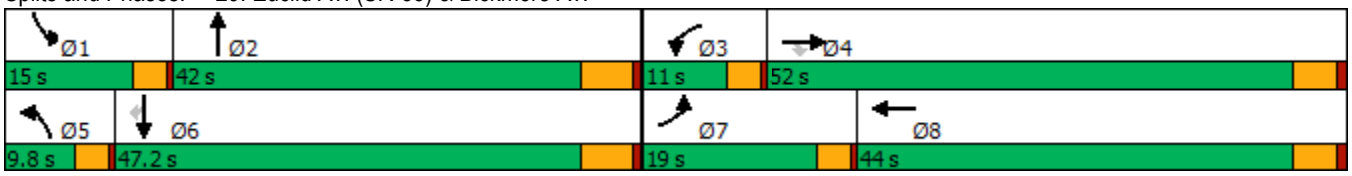
Intersection Summary	
HCM 6th Ctrl Delay	40.7
HCM 6th LOS	D

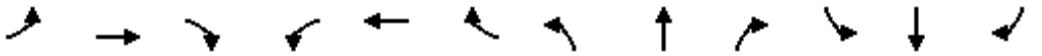
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	187	107	126	35	25	50	617	75	631	162
Future Volume (vph)	187	107	126	35	25	50	617	75	631	162
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.5	44.0	44.0	8.5	44.0	8.5	26.5	8.5	30.5	30.5
Total Split (s)	19.0	52.0	52.0	11.0	44.0	9.8	42.0	15.0	47.2	47.2
Total Split (%)	15.8%	43.3%	43.3%	9.2%	36.7%	8.2%	35.0%	12.5%	39.3%	39.3%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	3.0	4.5	3.0	4.5	4.5
All-Red Time (s)	0.5	1.0	1.0	0.5	1.0	0.5	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.5	3.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 70.7
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 29: Euclid Av. (SR-83) & Bickmore Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	187	107	126	35	25	49	50	617	73	75	631	162
Future Volume (veh/h)	187	107	126	35	25	49	50	617	73	75	631	162
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	203	116	122	38	27	25	54	671	56	82	686	144
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	252	398	338	68	93	86	88	906	76	115	1026	458
Arrive On Green	0.16	0.22	0.22	0.04	0.11	0.11	0.05	0.28	0.28	0.07	0.30	0.30
Sat Flow, veh/h	1619	1800	1525	1619	860	796	1619	3196	266	1619	3420	1525
Grp Volume(v), veh/h	203	116	122	38	0	52	54	359	368	82	686	144
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1619	0	1657	1619	1710	1752	1619	1710	1525
Q Serve(g_s), s	5.5	2.5	3.1	1.1	0.0	1.3	1.5	8.7	8.7	2.3	8.0	3.3
Cycle Q Clear(g_c), s	5.5	2.5	3.1	1.1	0.0	1.3	1.5	8.7	8.7	2.3	8.0	3.3
Prop In Lane	1.00		1.00	1.00		0.48	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	252	398	338	68	0	178	88	485	497	115	1026	458
V/C Ratio(X)	0.81	0.29	0.36	0.56	0.00	0.29	0.61	0.74	0.74	0.72	0.67	0.31
Avail Cap(c_a), veh/h	548	1849	1567	265	0	1412	223	1364	1397	407	3116	1390
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.7	14.8	15.1	21.5	0.0	18.8	21.2	14.9	14.9	20.8	14.0	12.4
Incr Delay (d2), s/veh	2.3	0.1	0.2	2.7	0.0	0.3	2.6	0.8	0.8	3.1	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.8	0.9	0.4	0.0	0.4	0.5	2.4	2.5	0.8	2.1	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.0	15.0	15.3	24.2	0.0	19.1	23.8	15.7	15.7	23.9	14.3	12.5
LnGrp LOS	C	B	B	C	A	B	C	B	B	C	B	B
Approach Vol, veh/h		441			90			781			912	
Approach Delay, s/veh		17.8			21.3			16.3			14.9	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.7	18.5	5.4	15.1	6.0	19.2	10.6	9.9
Change Period (Y+Rc), s	3.5	5.5	3.5	5.0	3.5	5.5	3.5	5.0
Max Green Setting (Gmax), s	11.5	36.5	7.5	47.0	6.3	41.7	15.5	39.0
Max Q Clear Time (g_c+I1), s	4.3	10.7	3.1	5.1	3.5	10.0	7.5	3.3
Green Ext Time (p_c), s	0.0	2.3	0.0	0.6	0.0	2.8	0.2	0.1

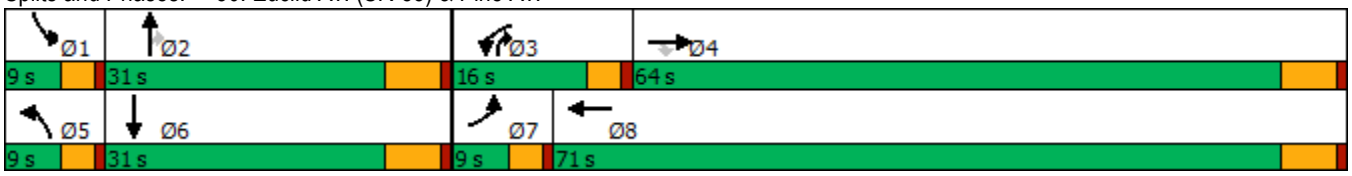
Intersection Summary	
HCM 6th Ctrl Delay	16.2
HCM 6th LOS	B

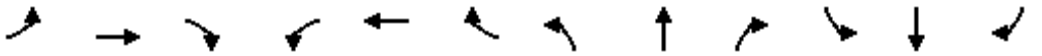
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	5	453	104	517	75	60	676	1061	82	728
Future Volume (vph)	5	453	104	517	75	60	676	1061	82	728
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4		3	8	5	2	3	1	6
Permitted Phases			4					2		
Detector Phase	7	4	4	3	8	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.0	43.0	43.0	9.0	45.0	9.0	11.0	9.0	9.0	29.0
Total Split (s)	9.0	64.0	64.0	16.0	71.0	9.0	31.0	16.0	9.0	31.0
Total Split (%)	7.5%	53.3%	53.3%	13.3%	59.2%	7.5%	25.8%	13.3%	7.5%	25.8%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0	3.0	3.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	4.0	6.0	4.0	4.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 92.6
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 30: Euclid Av. (SR-83) & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	453	104	517	75	34	60	676	1061	82	728	4
Future Volume (veh/h)	5	453	104	517	75	34	60	676	1061	82	728	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1600	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	5	462	0	528	77	33	61	690	666	84	743	4
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	11	554		396	521	223	75	954	630	90	1005	5
Arrive On Green	0.01	0.31	0.00	0.13	0.44	0.44	0.05	0.28	0.28	0.06	0.29	0.29
Sat Flow, veh/h	1619	1800	1525	2956	1195	512	1619	3420	1525	1619	3488	19
Grp Volume(v), veh/h	5	462	0	528	0	110	61	690	666	84	364	383
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1478	0	1708	1619	1710	1525	1619	1710	1797
Q Serve(g_s), s	0.3	21.4	0.0	12.0	0.0	3.5	3.3	16.3	25.0	4.6	17.3	17.3
Cycle Q Clear(g_c), s	0.3	21.4	0.0	12.0	0.0	3.5	3.3	16.3	25.0	4.6	17.3	17.3
Prop In Lane	1.00		1.00	1.00		0.30	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	11	554		396	0	744	75	954	630	90	493	518
V/C Ratio(X)	0.47	0.83		1.33	0.00	0.15	0.81	0.72	1.06	0.93	0.74	0.74
Avail Cap(c_a), veh/h	90	1165		396	0	1239	90	954	630	90	493	518
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.4	28.9	0.0	38.8	0.0	15.3	42.3	29.2	26.3	42.1	28.8	28.8
Incr Delay (d2), s/veh	11.7	4.7	0.0	166.5	0.0	0.1	30.1	2.4	51.9	70.8	5.2	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	9.2	0.0	13.2	0.0	1.2	1.9	6.3	20.7	3.5	7.0	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.0	33.6	0.0	205.3	0.0	15.4	72.4	31.5	78.2	113.0	34.0	33.8
LnGrp LOS	E	C		F	A	B	E	C	F	F	C	C
Approach Vol, veh/h		467	A		638			1417			831	
Approach Delay, s/veh		33.8			172.6			55.3			41.9	
Approach LOS		C			F			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	31.0	16.0	33.6	8.2	31.8	4.6	45.0
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	5.0	25.0	12.0	58.0	5.0	25.0	5.0	65.0
Max Q Clear Time (g_c+I1), s	6.6	27.0	14.0	23.4	5.3	19.3	2.3	5.5
Green Ext Time (p_c), s	0.0	0.0	0.0	4.2	0.0	1.3	0.0	0.9

Intersection Summary	
HCM 6th Ctrl Delay	71.3
HCM 6th LOS	E

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

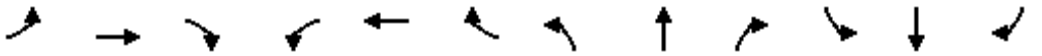
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	37	1511	25	15	542	30	44	25	31	9
Future Volume (vph)	37	1511	25	15	542	30	44	25	31	9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	NA
Protected Phases	7	4		3	8			2		6
Permitted Phases			4			8	2		6	
Detector Phase	7	4	4	3	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	16.2	9.6	23.2	23.2	15.8	15.8	15.2	15.2
Total Split (s)	14.0	87.0	87.0	12.0	85.0	85.0	21.0	21.0	21.0	21.0
Total Split (%)	11.7%	72.5%	72.5%	10.0%	70.8%	70.8%	17.5%	17.5%	17.5%	17.5%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	5.2	4.8	4.8	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	6.2	5.8	5.8	5.2	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 110.5
Natural Cycle: 70
Control Type: Actuated-Uncoordinated

Splits and Phases: 34: Chino Corona Rd. & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	1511	25	15	542	30	44	25	44	31	9	34
Future Volume (veh/h)	37	1511	25	15	542	30	44	25	44	31	9	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	41	1660	0	16	596	25	48	27	39	34	10	23
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	53	2529		28	1304	1105	161	61	88	133	44	102
Arrive On Green	0.03	0.74	0.00	0.02	0.72	0.72	0.09	0.09	0.09	0.09	0.09	0.09
Sat Flow, veh/h	1619	3420	1525	1619	1800	1525	1320	666	961	1281	485	1115
Grp Volume(v), veh/h	41	1660	0	16	596	25	48	0	66	34	0	33
Grp Sat Flow(s),veh/h/ln	1619	1710	1525	1619	1800	1525	1320	0	1627	1281	0	1599
Q Serve(g_s), s	2.7	26.9	0.0	1.1	14.9	0.5	3.8	0.0	4.2	2.8	0.0	2.1
Cycle Q Clear(g_c), s	2.7	26.9	0.0	1.1	14.9	0.5	5.9	0.0	4.2	7.0	0.0	2.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.59	1.00		0.70
Lane Grp Cap(c), veh/h	53	2529		28	1304	1105	161	0	148	133	0	146
V/C Ratio(X)	0.78	0.66		0.56	0.46	0.02	0.30	0.00	0.45	0.25	0.00	0.23
Avail Cap(c_a), veh/h	139	2529		110	1304	1105	224	0	226	202	0	231
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	52.5	7.2	0.0	53.3	6.2	4.2	48.8	0.0	47.0	50.4	0.0	46.1
Incr Delay (d2), s/veh	8.8	1.3	0.0	6.3	1.2	0.0	1.0	0.0	2.1	1.0	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	7.1	0.0	0.5	4.5	0.1	1.3	0.0	1.7	0.9	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.3	8.6	0.0	59.5	7.4	4.3	49.9	0.0	49.1	51.4	0.0	46.9
LnGrp LOS	E	A		E	A	A	D	A	D	D	A	D
Approach Vol, veh/h		1701	A		637			114			67	
Approach Delay, s/veh		9.8			8.6			49.4			49.1	
Approach LOS		A			A			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.8	6.5	87.0		15.8	8.2	85.4				
Change Period (Y+Rc), s		5.8	4.6	6.2		* 5.8	4.6	6.2				
Max Green Setting (Gmax), s		15.2	7.4	80.8		* 16	9.4	78.8				
Max Q Clear Time (g_c+I1), s		7.9	3.1	28.9		9.0	4.7	16.9				
Green Ext Time (p_c), s		0.2	0.0	18.0		0.1	0.0	3.9				

Intersection Summary	
HCM 6th Ctrl Delay	12.3
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

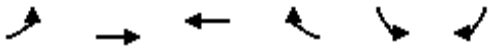
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	25	1561	562	114	24
Future Volume (vph)	25	1561	562	114	24
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	7	4	8	6	
Permitted Phases					6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	14.7	14.7
Total Split (s)	13.0	92.0	79.0	28.0	28.0
Total Split (%)	10.8%	76.7%	65.8%	23.3%	23.3%
Yellow Time (s)	3.6	4.8	4.8	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.7	4.7
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 71.6
Natural Cycle: 55
Control Type: Actuated-Uncoordinated

Splits and Phases: 36: Pine Av. & West Preserve Loop





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	25	1561	562	49	114	24
Future Volume (veh/h)	25	1561	562	49	114	24
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1700	1800
Adj Flow Rate, veh/h	26	1626	585	46	119	21
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	46	2416	1967	154	232	218
Arrive On Green	0.03	0.71	0.61	0.61	0.14	0.14
Sat Flow, veh/h	1619	3510	3302	252	1619	1525
Grp Volume(v), veh/h	26	1626	311	320	119	21
Grp Sat Flow(s),veh/h/ln	1619	1710	1710	1755	1619	1525
Q Serve(g_s), s	1.1	18.6	6.0	6.0	4.7	0.8
Cycle Q Clear(g_c), s	1.1	18.6	6.0	6.0	4.7	0.8
Prop In Lane	1.00			0.14	1.00	1.00
Lane Grp Cap(c), veh/h	46	2416	1047	1074	232	218
V/C Ratio(X)	0.57	0.67	0.30	0.30	0.51	0.10
Avail Cap(c_a), veh/h	195	4222	1793	1839	540	509
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.5	5.7	6.4	6.4	27.7	26.0
Incr Delay (d2), s/veh	10.5	0.5	0.2	0.2	1.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.1	1.5	1.5	1.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	44.0	6.2	6.6	6.6	29.4	26.2
LnGrp LOS	D	A	A	A	C	C
Approach Vol, veh/h		1652	631		140	
Approach Delay, s/veh		6.8	6.6		28.9	
Approach LOS		A	A		C	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	55.1	14.7	6.6	48.5
Change Period (Y+Rc), s	5.8	4.7	4.6	5.8
Max Green Setting (Gmax), s	86.2	23.3	8.4	73.2
Max Q Clear Time (g_c+I1), s	20.6	6.7	3.1	8.0
Green Ext Time (p_c), s	28.7	0.3	0.0	5.7

Intersection Summary	
HCM 6th Ctrl Delay	8.0
HCM 6th LOS	A

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1625	49	17	591	20	13
Future Volume (vph)	1625	49	17	591	20	13
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	35.8	35.8	9.6	15.8	10.1	10.1
Total Split (s)	94.0	94.0	13.0	107.0	13.0	13.0
Total Split (%)	78.3%	78.3%	10.8%	89.2%	10.8%	10.8%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.1	5.1
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 77.7
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 39: East Preserve Loop & Pine Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1625	49	17	591	20	13
Future Volume (veh/h)	1625	49	17	591	20	13
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1800	1800	1700	1800	1600	1800
Adj Flow Rate, veh/h	1693	51	18	616	21	5
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	2380	1062	33	2641	283	146
Arrive On Green	0.70	0.70	0.02	0.77	0.10	0.10
Sat Flow, veh/h	3510	1525	1619	3510	2956	1525
Grp Volume(v), veh/h	1693	51	18	616	21	5
Grp Sat Flow(s),veh/h/ln	1710	1525	1619	1710	1478	1525
Q Serve(g_s), s	24.6	0.9	0.9	4.1	0.5	0.2
Cycle Q Clear(g_c), s	24.6	0.9	0.9	4.1	0.5	0.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2380	1062	33	2641	283	146
V/C Ratio(X)	0.71	0.05	0.54	0.23	0.07	0.03
Avail Cap(c_a), veh/h	3656	1630	165	4194	283	146
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.6	3.9	40.0	2.6	34.0	33.8
Incr Delay (d2), s/veh	0.6	0.0	5.0	0.1	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	0.2	0.4	0.6	0.2	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.1	4.0	45.1	2.7	34.5	34.3
LnGrp LOS	A	A	D	A	C	C
Approach Vol, veh/h	1744			634	26	
Approach Delay, s/veh	8.0			3.9	34.4	
Approach LOS	A			A	C	

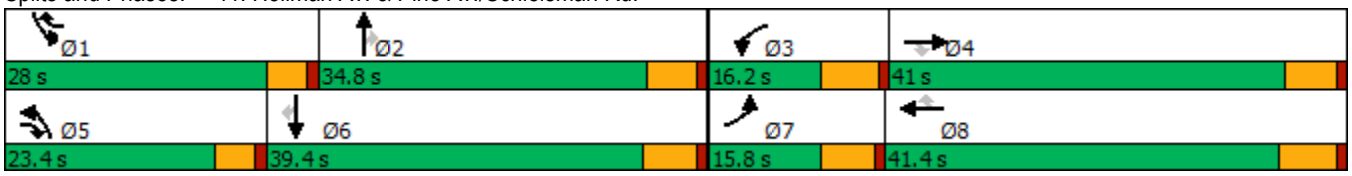
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		13.0	6.3	63.2		69.5
Change Period (Y+Rc), s		5.1	4.6	5.8		5.8
Max Green Setting (Gmax), s		7.9	8.4	88.2		101.2
Max Q Clear Time (g_c+I1), s		2.5	2.9	26.6		6.1
Green Ext Time (p_c), s		0.0	0.0	30.8		6.3

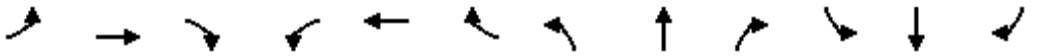
Intersection Summary	
HCM 6th Ctrl Delay	7.2
HCM 6th LOS	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	1179	425	36	476	131	144	125	56	380	300	33
Future Volume (vph)	21	1179	425	36	476	131	144	125	56	380	300	33
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	5	3	8	1	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	34.8	9.6	16.2	35.2	9.6	9.6	32.4	32.4	9.6	32.8	32.8
Total Split (s)	15.8	41.0	23.4	16.2	41.4	28.0	23.4	34.8	34.8	28.0	39.4	39.4
Total Split (%)	13.2%	34.2%	19.5%	13.5%	34.5%	23.3%	19.5%	29.0%	29.0%	23.3%	32.8%	32.8%
Yellow Time (s)	4.8	4.8	3.6	5.2	5.2	3.6	3.6	4.4	4.4	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	6.2	6.2	4.6	4.6	5.4	5.4	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 107.3
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 41: Hellman Av. & Pine Av./Schleisman Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	1179	425	36	476	131	144	125	56	380	300	33
Future Volume (veh/h)	21	1179	425	36	476	131	144	125	56	380	300	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1600	1800	1800	1600	1800	1800	1600	1800	1800	1600	1800	1800
Adj Flow Rate, veh/h	22	1254	263	38	506	78	153	133	33	404	319	16
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	260	1464	560	260	1482	697	205	884	394	459	1178	525
Arrive On Green	0.09	0.30	0.30	0.09	0.30	0.30	0.07	0.26	0.26	0.16	0.34	0.34
Sat Flow, veh/h	2956	4914	1525	2956	4914	1525	2956	3420	1525	2956	3420	1525
Grp Volume(v), veh/h	22	1254	263	38	506	78	153	133	33	404	319	16
Grp Sat Flow(s),veh/h/ln	1478	1638	1525	1478	1638	1525	1478	1710	1525	1478	1710	1525
Q Serve(g_s), s	0.8	27.4	15.0	1.4	9.1	3.3	5.8	3.4	1.9	15.2	7.7	0.8
Cycle Q Clear(g_c), s	0.8	27.4	15.0	1.4	9.1	3.3	5.8	3.4	1.9	15.2	7.7	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	260	1464	560	260	1482	697	205	884	394	459	1178	525
V/C Ratio(X)	0.08	0.86	0.47	0.15	0.34	0.11	0.75	0.15	0.08	0.88	0.27	0.03
Avail Cap(c_a), veh/h	260	1521	578	260	1521	709	489	884	394	608	1178	525
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.7	37.6	27.5	47.9	30.9	17.7	51.9	32.5	32.0	47.0	27.0	24.7
Incr Delay (d2), s/veh	0.2	5.1	0.9	0.4	0.2	0.1	2.0	0.4	0.4	9.4	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	11.0	5.3	0.5	3.5	1.1	2.1	1.4	0.7	6.0	3.1	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.9	42.8	28.4	48.3	31.1	17.8	54.0	32.9	32.4	56.4	27.5	24.8
LnGrp LOS	D	D	C	D	C	B	D	C	C	E	C	C
Approach Vol, veh/h		1539			622			319			739	
Approach Delay, s/veh		40.4			30.5			43.0			43.3	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.2	35.2	16.2	40.1	12.5	45.0	15.8	40.5
Change Period (Y+Rc), s	4.6	* 5.8	6.2	* 6.2	4.6	5.8	5.8	6.2
Max Green Setting (Gmax), s	23.4	* 29	10.0	* 35	18.8	33.6	10.0	35.2
Max Q Clear Time (g_c+I1), s	17.2	5.4	3.4	29.4	7.8	9.7	2.8	11.1
Green Ext Time (p_c), s	0.4	1.1	0.0	4.5	0.2	2.6	0.0	4.7

Intersection Summary	
HCM 6th Ctrl Delay	39.4
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	347	227	524	363	519	843
Future Volume (vph)	347	227	524	363	519	843
Turn Type	Prot	pm+ov	NA	pm+ov	Prot	NA
Protected Phases	8	1	2	8	1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	36.3	11.0	46.3	36.3	11.0	11.0
Total Split (s)	36.3	37.0	46.7	36.3	37.0	83.7
Total Split (%)	30.3%	30.8%	38.9%	30.3%	30.8%	69.8%
Yellow Time (s)	4.3	4.0	4.3	4.3	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.0	5.3	5.3	5.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 107.4
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 42: Archibald Av. & Limonite Av.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	347	227	524	363	519	843
Future Volume (veh/h)	347	227	524	363	519	843
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	354	182	535	349	530	860
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	388	841	618	858	557	1296
Arrive On Green	0.21	0.21	0.33	0.33	0.31	0.68
Sat Flow, veh/h	1810	1610	1900	1576	1810	1900
Grp Volume(v), veh/h	354	182	535	349	530	860
Grp Sat Flow(s),veh/h/ln	1810	1610	1900	1576	1810	1900
Q Serve(g_s), s	19.5	6.2	27.0	13.4	29.3	26.9
Cycle Q Clear(g_c), s	19.5	6.2	27.0	13.4	29.3	26.9
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	388	841	618	858	557	1296
V/C Ratio(X)	0.91	0.22	0.87	0.41	0.95	0.66
Avail Cap(c_a), veh/h	549	984	770	984	566	1463
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.2	13.2	32.4	13.9	34.6	9.4
Incr Delay (d2), s/veh	12.7	0.0	9.0	0.4	26.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.5	2.0	13.0	7.0	15.7	8.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	51.9	13.2	41.4	14.3	60.7	10.1
LnGrp LOS	D	B	D	B	E	B
Approach Vol, veh/h	536		884			1390
Approach Delay, s/veh	38.8		30.7			29.4
Approach LOS	D		C			C

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	36.5	38.5			75.0	27.2
Change Period (Y+Rc), s	5.0	5.3			* 5.3	5.3
Max Green Setting (Gmax), s	32.0	41.4			* 79	31.0
Max Q Clear Time (g_c+I1), s	31.3	29.0			28.9	21.5
Green Ext Time (p_c), s	0.2	4.2			3.5	0.4

Intersection Summary	
HCM 6th Ctrl Delay	31.6
HCM 6th LOS	C

Notes

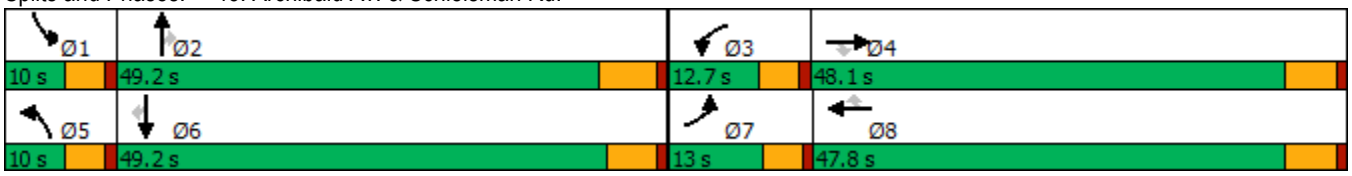
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

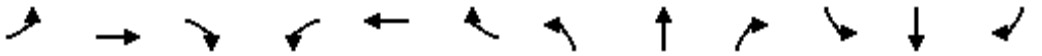
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	416	995	181	108	309	55	181	593	109	160	641	317
Future Volume (vph)	416	995	181	108	309	55	181	593	109	160	641	317
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	47.8	47.8	9.6	47.8	47.8	9.6	48.2	48.2	9.6	47.4	47.4
Total Split (s)	13.0	48.1	48.1	12.7	47.8	47.8	10.0	49.2	49.2	10.0	49.2	49.2
Total Split (%)	10.8%	40.1%	40.1%	10.6%	39.8%	39.8%	8.3%	41.0%	41.0%	8.3%	41.0%	41.0%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	5.2	5.2	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	6.2	6.2	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 99.5
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 43: Archibald Av. & Schleisman Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	416	995	181	108	309	55	181	593	109	160	641	317
Future Volume (veh/h)	416	995	181	108	309	55	181	593	109	160	641	317
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	424	1015	103	110	315	30	185	605	74	163	654	209
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	306	2454	762	173	2257	700	196	1048	325	196	1048	324
Arrive On Green	0.09	0.47	0.47	0.05	0.44	0.44	0.06	0.20	0.20	0.06	0.20	0.20
Sat Flow, veh/h	3510	5187	1610	3510	5187	1608	3510	5187	1610	3510	5187	1603
Grp Volume(v), veh/h	424	1015	103	110	315	30	185	605	74	163	654	209
Grp Sat Flow(s),veh/h/ln	1755	1729	1610	1755	1729	1608	1755	1729	1610	1755	1729	1603
Q Serve(g_s), s	8.4	12.4	3.5	3.0	3.5	1.0	5.1	10.2	3.7	4.4	11.1	11.5
Cycle Q Clear(g_c), s	8.4	12.4	3.5	3.0	3.5	1.0	5.1	10.2	3.7	4.4	11.1	11.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	306	2454	762	173	2257	700	196	1048	325	196	1048	324
V/C Ratio(X)	1.39	0.41	0.14	0.64	0.14	0.04	0.94	0.58	0.23	0.83	0.62	0.65
Avail Cap(c_a), veh/h	306	2454	762	295	2257	700	196	2311	717	196	2354	728
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.1	16.7	14.3	45.0	16.4	15.7	45.4	34.8	32.2	45.1	35.1	35.3
Incr Delay (d2), s/veh	193.5	0.5	0.4	1.5	0.1	0.1	47.2	0.5	0.4	23.5	0.6	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.7	4.6	1.2	1.3	1.3	0.4	3.4	4.1	1.4	2.5	4.4	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	237.5	17.2	14.7	46.5	16.5	15.8	92.6	35.3	32.5	68.6	35.8	37.5
LnGrp LOS	F	B	B	D	B	B	F	D	C	E	D	D
Approach Vol, veh/h		1542			455			864			1026	
Approach Delay, s/veh		77.6			23.7			47.3			41.3	
Approach LOS		E			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	25.7	9.3	51.5	10.0	25.7	13.0	47.8
Change Period (Y+Rc), s	4.6	6.2	4.6	5.8	4.6	* 6.2	4.6	5.8
Max Green Setting (Gmax), s	5.4	43.0	8.1	42.3	5.4	* 44	8.4	42.0
Max Q Clear Time (g_c+I1), s	6.4	12.2	5.0	14.4	7.1	13.5	10.4	5.5
Green Ext Time (p_c), s	0.0	4.1	0.0	7.7	0.0	5.0	0.0	2.1

Intersection Summary	
HCM 6th Ctrl Delay	55.0
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 6.3:

E+P (BUILDING 1) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

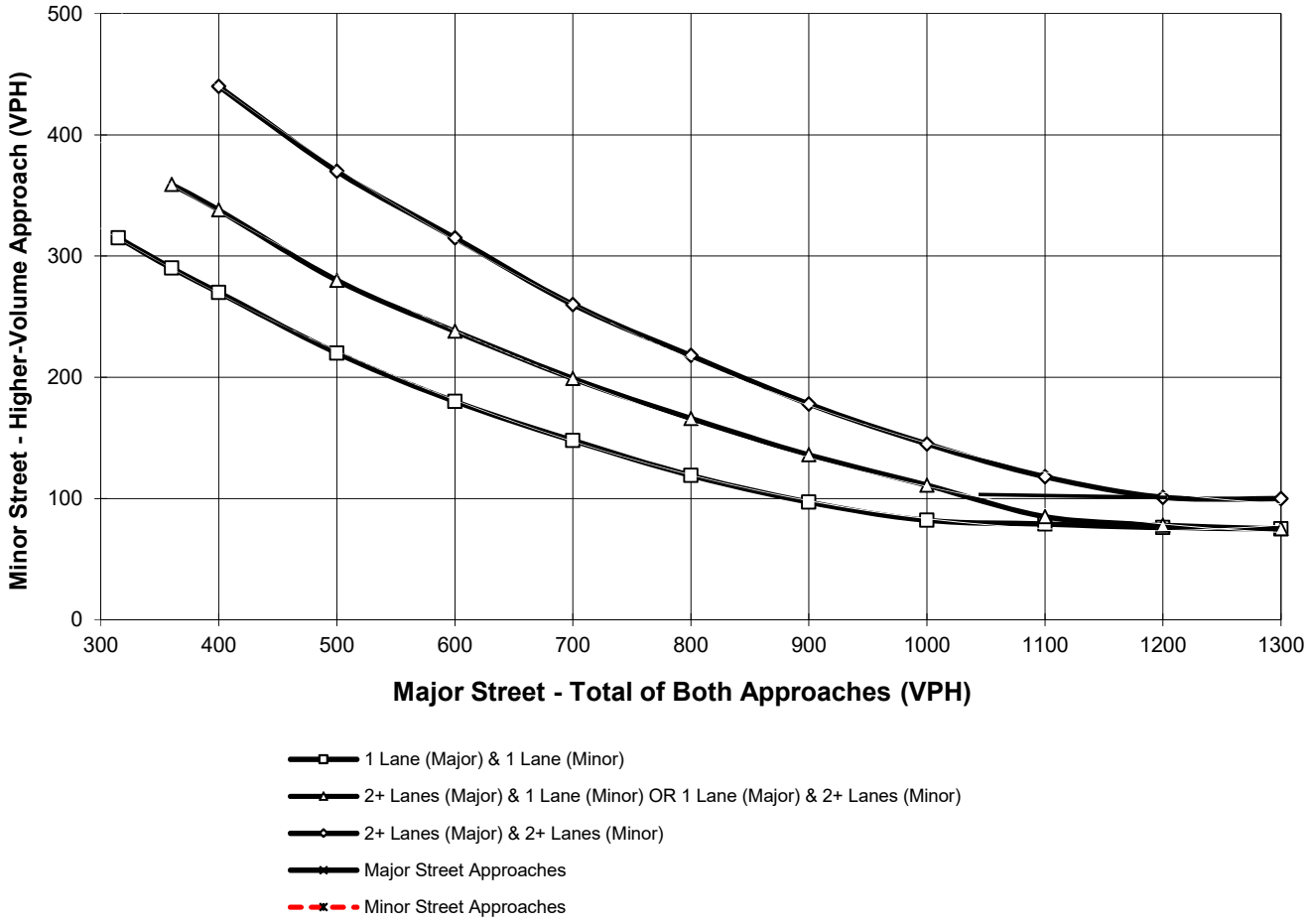
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P - Building 1 Conditions - Weekday AM Peak Hour**

Major Street Name = **Bickmore Av** Total of Both Approaches (VPH) = **116**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Mountain Av** High Volume Approach (VPH) = **267**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	E+P - Building 1
				CALC LC	DATE 04/03/19
Jurisdiction: City of Chino				CHK CH	DATE 04/03/19
Major Street: Mountain Av				Critical Approach Speed (Major)	45 mph
Minor Street: Driveway 1				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **2,299** vpd Minor Street Future ADT = **255** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL: XX

CONDITION A - Minimum Vehicular Volume

Satisfied / Not Satisfied: XX

Number of lanes for moving traffic on each approach

Major Street	Minor Street	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches) Urban	Rural	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) Urban	Rural
1 **2,299**	1 **255**	8,000	5,600	2,400	1,680
2 +	1	9,600	6,720	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240

CONDITION B - Interruption of Continuous Traffic

Satisfied / Not Satisfied: XX

Number of lanes for moving traffic on each approach

Major Street	Minor Street	Vehicles Per Day on Major Street (Total of Both Approaches) Urban	Rural	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) Urban	Rural
1 **2,299**	1 **255**	12,000	8,400	1,200	850
2 +	1	14,400	10,080	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120

Combination of CONDITIONS A + B

Satisfied / Not Satisfied: XX

No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 15% B: 27%

2 CONDITIONS 80%

2 CONDITIONS 80%

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM				
				TRAFFIC CONDITIONS		**E+P - Building 1**	
				CALC	LC	DATE	04/03/19
Jurisdiction:	**City of Chino**			CHK	CH	DATE	04/03/19
Major Street:	**Mountain Av**			Critical Approach Speed (Major)		45	mph
Minor Street:	**Driveway 2**			Critical Approach Speed (Minor)		25	mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **1,749** vpd Minor Street Future ADT = **933** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **1,749**	*1* **933**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **1,749**	*1* **933**	12,000	8,400	1,200	850 *
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more …..	**A** 31% **B** 21%	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	E+P - Building 1
				CALC LC	DATE 04/03/19
Jurisdiction: City of Chino				CHK CH	DATE 04/03/19
Major Street: Mountain Av				Critical Approach Speed (Major)	45 mph
Minor Street: Driveway 3				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **816** vpd Minor Street Future ADT = **0** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **816**	*1* **0**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **816**	*1* **0**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	**A** 15% **B** 10%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM		TRAFFIC CONDITIONS		E+P - Building 1
				CALC	LC	DATE	04/03/19
Jurisdiction:	City of Chino			CHK	CH	DATE	04/03/19
Major Street:	Bickmore Av				Critical Approach Speed (Major)		40 mph
Minor Street:	Driveway 4				Critical Approach Speed (Minor)		25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **1,135** vpd Minor Street Future ADT = **255** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …….. [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
XX					
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **1,135**	*1* **255**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **1,135**	*1* **255**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more …..	**A** 11% **B** 9%	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	E+P - Building 1
				CALC LC	DATE 04/03/19
Jurisdiction: City of Chino				CHK CH	DATE 04/03/19
Major Street: Bickmore Av				Critical Approach Speed (Major)	40 mph
Minor Street: Driveway 5				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **1,465** vpd Minor Street Future ADT = **75** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …….. [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
XX					
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **1,465**	*1* **75**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **1,465**	*1* **75**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more …..	**A** 3% **B** 6%	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	E+P - Building 1
				CALC LC	DATE 04/03/19
Jurisdiction: City of Chino				CHK CH	DATE 04/03/19
Major Street: Bickmore Av				Critical Approach Speed (Major)	40 mph
Minor Street: Driveway 6				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **1,617** vpd Minor Street Future ADT = **75** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …… [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
XX					
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **1,617**	*1* **75**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **1,617**	*1* **75**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more …..	**A** 3% **B** 6%	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

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APPENDIX 6.4:

E+P (PROJECT BUILDOUT) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

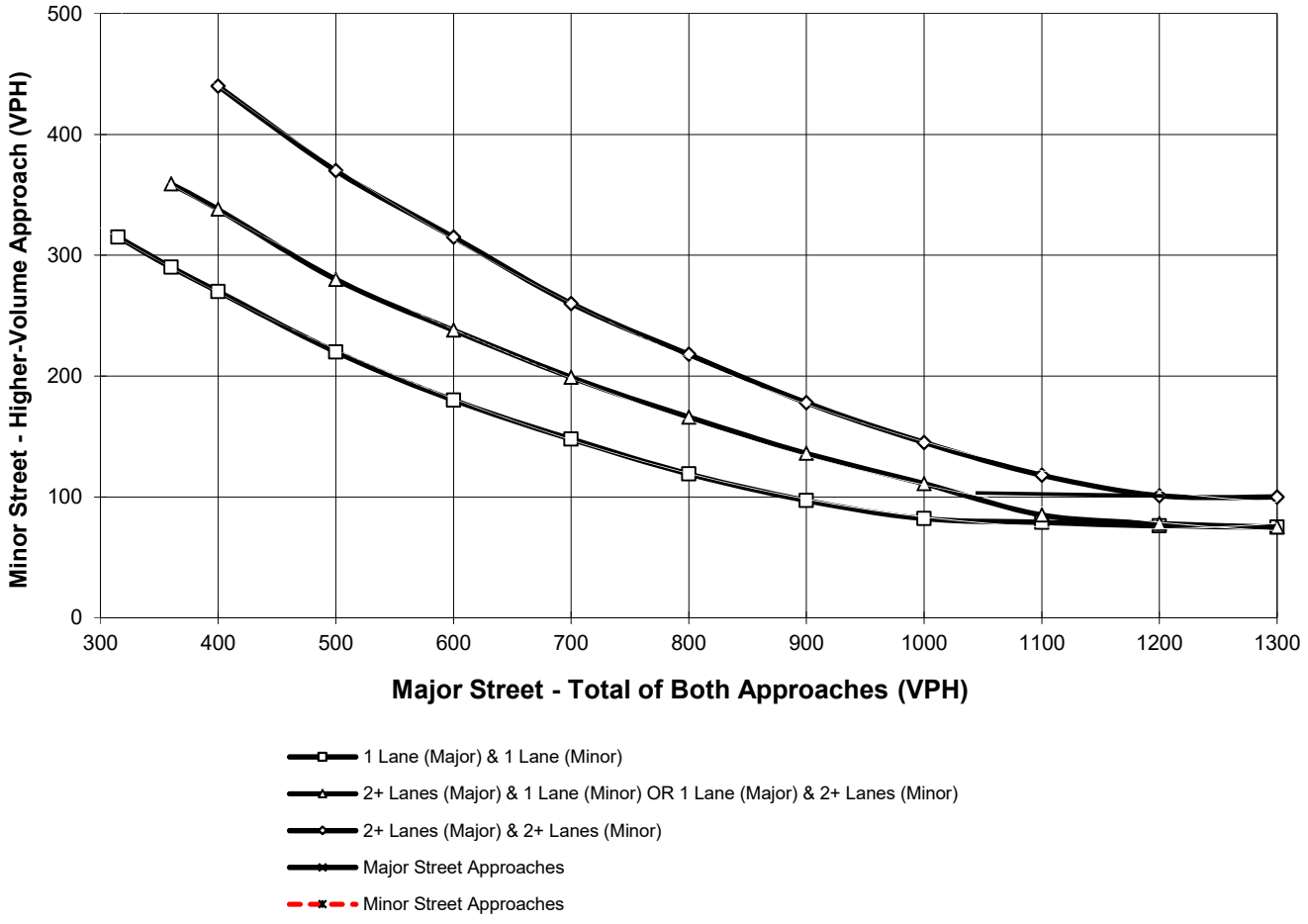
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P - Buildout Conditions - Weekday AM Peak Hour**

Major Street Name = **Bickmore Av** — Total of Both Approaches (VPH) = **163**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Mountain Av** — High Volume Approach (VPH) = **302**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM		TRAFFIC CONDITIONS		E+P - Buildout
				CALC	LC	DATE	04/03/19
Jurisdiction:	City of Chino			CHK	CH	DATE	04/03/19
Major Street:	Mountain Av				Critical Approach Speed (Major)		45 mph
Minor Street:	Driveway 1				Critical Approach Speed (Minor)		25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **3,706** vpd Minor Street Future ADT = **362** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
CONDITION A - Minimum Vehicular Volume	Urban	Rural	Urban	Rural
Satisfied / Not Satisfied: XX / XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **3,706** / 1 **362**	8,000	5,600	2,400	1,680
2 + / 1	9,600	6,720	2,400	1,680
2 + / 2 +	9,600	6,720	3,200	2,240
1 / 2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **3,706** / 1 **362**	12,000	8,400	1,200	850
2 + / 1	14,400	10,080	1,200	850
2 + / 2 +	14,400	10,080	1,600	1,120
1 / 2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied: XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 22% B: 43%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM		TRAFFIC CONDITIONS		E+P - Buildout
				CALC	LC	DATE	04/03/19
Jurisdiction:	City of Chino			CHK	CH	DATE	04/03/19
Major Street:	Mountain Av				Critical Approach Speed (Major)		45 mph
Minor Street:	Driveway 2				Critical Approach Speed (Minor)		25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **2,259** vpd Minor Street Future ADT = **1,353** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1 **2,259**	*1* **1,353**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1 **2,259**	*1* **1,353**	12,000	8,400	1,200	850 *
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	A 40% B 27%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	E+P - Buildout
				CALC LC	DATE 04/03/19
Jurisdiction: City of Chino				CHK CH	DATE 04/03/19
Major Street: Mountain Av				Critical Approach Speed (Major)	45 mph
Minor Street: Driveway 3				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **1,867** vpd Minor Street Future ADT = **481** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
CONDITION A - Minimum Vehicular Volume	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: XX / XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **1,867** / 1 **481**	8,000	5,600	2,400	1,680
2 + / 1	9,600	6,720	2,400	1,680
2 + / 2 +	9,600	6,720	3,200	2,240
1 / 2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **1,867** / 1 **481**	12,000	8,400	1,200	850
2 + / 1	14,400	10,080	1,200	850
2 + / 2 +	14,400	10,080	1,600	1,120
1 / 2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied: XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 29% B: 22%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM		TRAFFIC CONDITIONS		E+P - Buildout
				CALC	LC	DATE	04/03/19
Jurisdiction:	City of Chino			CHK	CH	DATE	04/03/19
Major Street:	Bickmore Av				Critical Approach Speed (Major)		40 mph
Minor Street:	Driveway 4				Critical Approach Speed (Minor)		25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **2,164** vpd Minor Street Future ADT = **452** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …….. [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
XX					
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **2,164**	*1* **452**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **2,164**	*1* **452**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more …..	A: 19% B: 18%	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM		TRAFFIC CONDITIONS		E+P - Buildout
				CALC	LC	DATE	04/03/19
Jurisdiction:	City of Chino			CHK	CH	DATE	04/03/19
Major Street:	Bickmore Av				Critical Approach Speed (Major)		40 mph
Minor Street:	Driveway 5				Critical Approach Speed (Minor)		25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **2,721** vpd Minor Street Future ADT = **105** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …….. [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
XX					
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **2,721**	*1* **105**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **2,721**	*1* **105**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more …..	**A** 4% **B** 9%	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	E+P - Buildout
				CALC LC	DATE 04/03/19
Jurisdiction: City of Chino				CHK CH	DATE 04/03/19
Major Street: Bickmore Av				Critical Approach Speed (Major)	40 mph
Minor Street: Driveway 6				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **2,931** vpd Minor Street Future ADT = **105** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …… [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
XX					
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **2,931**	*1* **105**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **2,931**	*1* **105**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more …..	**A** 4% **B** 9%	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

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APPENDIX 6.5:

E+P (BUILDING 1) CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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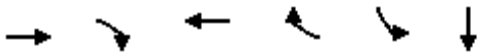
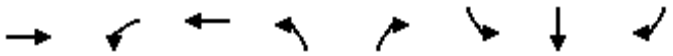


Lane Group	EBT	EBR	WBT	WBR	SBL	SBT
Lane Group Flow (vph)	1594	106	780	207	493	446
v/c Ratio	0.70	0.14	0.34	0.16	0.78	0.71
Control Delay	16.7	3.6	12.6	2.6	26.4	19.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.7	3.6	12.6	2.6	26.4	19.8
Queue Length 50th (ft)	177	0	71	0	161	113
Queue Length 95th (ft)	236	24	101	17	257	202
Internal Link Dist (ft)	970		693			1282
Turn Bay Length (ft)		175				
Base Capacity (vph)	2274	749	2274	1327	780	759
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.14	0.34	0.16	0.63	0.59

Intersection Summary



Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	732	199	281	19	294	333	335	41
v/c Ratio	0.89	0.62	0.17	0.12	0.87	0.66	0.66	0.07
Control Delay	43.8	42.2	18.2	36.4	38.0	31.2	31.1	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.8	42.2	18.2	36.4	38.0	31.2	31.1	0.2
Queue Length 50th (ft)	183	91	46	9	37	157	158	0
Queue Length 95th (ft)	#277	#247	80	29	#178	215	215	0
Internal Link Dist (ft)	980		1139				1358	
Turn Bay Length (ft)		200				1000		255
Base Capacity (vph)	855	320	1673	155	339	640	645	693
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.86	0.62	0.17	0.12	0.87	0.52	0.52	0.06

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBT	WBR	NBL	NBT
Lane Group Flow (vph)	1289	884	913	1118	67	450
v/c Ratio	0.53	0.73	0.37	0.84	0.11	0.79
Control Delay	14.2	5.9	12.7	9.2	12.5	27.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.2	5.9	12.7	9.2	12.5	27.1
Queue Length 50th (ft)	125	0	81	6	17	146
Queue Length 95th (ft)	192	60	128	#286	34	207
Internal Link Dist (ft)	693		840			1223
Turn Bay Length (ft)						
Base Capacity (vph)	2448	1208	2448	1338	778	722
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.73	0.37	0.84	0.09	0.62

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	700	307	787	984	46	694
v/c Ratio	0.71	0.50	0.98	0.36	0.10	0.89
Control Delay	26.5	8.8	52.3	3.3	33.6	21.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.5	8.8	52.3	3.3	33.6	21.6
Queue Length 50th (ft)	162	43	374	64	10	23
Queue Length 95th (ft)	m180	m69	#620	46	27	#235
Internal Link Dist (ft)	1139			2865	1665	
Turn Bay Length (ft)		100	300			420
Base Capacity (vph)	1263	712	800	3023	481	776
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.43	0.98	0.33	0.10	0.89

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	374	372	339	356	961	1011	500
v/c Ratio	0.83	0.86	0.69	0.86	0.43	0.82	0.57
Control Delay	47.5	48.7	25.7	38.8	17.3	36.7	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.5	48.7	25.7	38.8	17.3	36.7	5.5
Queue Length 50th (ft)	202	201	109	170	258	295	0
Queue Length 95th (ft)	#312	#342	206	m#281	331	#450	77
Internal Link Dist (ft)		1410			440	1540	
Turn Bay Length (ft)	400		400	285			
Base Capacity (vph)	514	495	547	471	2241	1227	879
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.75	0.62	0.76	0.43	0.82	0.57

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

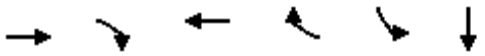
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	382	356	879	695	382	1256
v/c Ratio	0.88	0.80	0.70	0.72	0.89	0.55
Control Delay	54.9	39.5	30.0	8.6	52.8	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.4
Total Delay	54.9	39.5	30.0	8.6	52.8	5.6
Queue Length 50th (ft)	211	156	240	24	163	58
Queue Length 95th (ft)	#363	#289	313	151	m#249	99
Internal Link Dist (ft)		1071	1060			440
Turn Bay Length (ft)	900					
Base Capacity (vph)	476	482	1260	960	461	2276
Starvation Cap Reductn	0	0	0	0	0	457
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.74	0.70	0.72	0.83	0.69

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

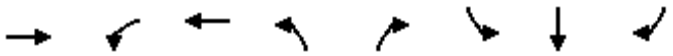


Lane Group	EBT	EBR	WBT	WBR	SBL	SBT
Lane Group Flow (vph)	1033	72	844	290	835	981
v/c Ratio	0.75	0.15	0.62	0.31	0.87	1.11
Control Delay	26.1	6.4	23.3	3.8	25.4	82.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.1	6.4	23.3	3.8	25.4	82.4
Queue Length 50th (ft)	136	0	107	0	271	~473
Queue Length 95th (ft)	181	26	145	27	#528	#701
Internal Link Dist (ft)	970		693			1282
Turn Bay Length (ft)		175				
Base Capacity (vph)	1372	468	1372	946	955	885
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.15	0.62	0.31	0.87	1.11

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	936	126	265	18	153	360	364	70
v/c Ratio	0.91	0.57	0.16	0.16	0.62	0.66	0.66	0.12
Control Delay	43.1	44.2	24.2	38.8	19.1	29.9	29.8	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.1	44.2	24.2	38.8	19.1	29.9	29.8	0.4
Queue Length 50th (ft)	240	63	56	9	0	167	169	0
Queue Length 95th (ft)	#376	#173	99	29	#65	230	232	1
Internal Link Dist (ft)	980		1139				1358	
Turn Bay Length (ft)		200				1000		255
Base Capacity (vph)	1026	221	1675	115	246	662	670	711
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.57	0.16	0.16	0.62	0.54	0.54	0.10

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBT	WBR	NBL	NBT
Lane Group Flow (vph)	1442	438	942	728	130	369
v/c Ratio	0.51	0.41	0.33	0.60	0.27	0.80
Control Delay	11.0	2.5	9.5	3.4	18.4	31.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.0	2.5	9.5	3.4	18.4	31.5
Queue Length 50th (ft)	125	0	72	0	41	121
Queue Length 95th (ft)	181	41	108	50	75	204
Internal Link Dist (ft)	693		840			1223
Turn Bay Length (ft)						
Base Capacity (vph)	2812	1056	2812	1208	585	557
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.41	0.33	0.60	0.22	0.66

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	937	174	413	1126	148	1067
v/c Ratio	0.81	0.29	1.26	0.57	0.12	1.30
Control Delay	26.3	7.4	171.8	13.0	18.7	161.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.3	7.4	171.8	13.0	18.7	161.4
Queue Length 50th (ft)	172	16	~263	171	26	~568
Queue Length 95th (ft)	m214	m23	#406	204	44	#745
Internal Link Dist (ft)	1139			2865	1665	
Turn Bay Length (ft)		100	300			420
Base Capacity (vph)	1263	644	327	2075	1238	823
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.27	1.26	0.54	0.12	1.30

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	354	348	322	250	1081	1008	493
v/c Ratio	0.79	0.81	0.70	0.78	0.48	0.71	0.53
Control Delay	44.0	43.8	30.0	40.0	19.9	28.8	4.8
Queue Delay	0.0	0.0	0.0	0.0	1.1	0.0	0.0
Total Delay	44.0	43.8	30.0	40.0	21.0	28.8	4.8
Queue Length 50th (ft)	193	189	125	129	313	257	0
Queue Length 95th (ft)	280	281	209	m190	418	#423	72
Internal Link Dist (ft)		1410			404	1540	
Turn Bay Length (ft)				285			400
Base Capacity (vph)	552	529	545	391	2249	1426	936
Starvation Cap Reductn	0	0	0	0	854	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.66	0.59	0.64	0.77	0.71	0.53

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	367	359	896	579	368	1219
v/c Ratio	0.88	0.82	0.68	0.62	0.88	0.53
Control Delay	56.0	41.3	28.8	5.4	49.9	4.5
Queue Delay	1.6	1.0	0.0	0.0	0.0	0.3
Total Delay	57.6	42.3	28.8	5.4	49.9	4.9
Queue Length 50th (ft)	205	155	242	0	118	44
Queue Length 95th (ft)	#352	#294	315	77	#321	89
Internal Link Dist (ft)		1071	1124			404
Turn Bay Length (ft)	900					
Base Capacity (vph)	457	472	1310	939	461	2312
Starvation Cap Reductn	0	0	0	0	0	493
Spillback Cap Reductn	22	22	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.80	0.68	0.62	0.80	0.67

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

APPENDIX 6.6:

E+P (PROJECT BUILDOUT) CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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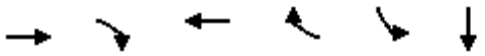


Lane Group	EBT	EBR	WBT	WBR	SBL	SBT
Lane Group Flow (vph)	1598	106	781	207	503	462
v/c Ratio	0.71	0.14	0.34	0.16	0.79	0.73
Control Delay	16.9	3.7	12.7	2.6	26.9	20.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.9	3.7	12.7	2.6	26.9	20.6
Queue Length 50th (ft)	180	0	72	0	165	120
Queue Length 95th (ft)	237	24	101	17	265	211
Internal Link Dist (ft)	970		693			1282
Turn Bay Length (ft)		175				
Base Capacity (vph)	2264	746	2264	1322	777	758
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.71	0.14	0.34	0.16	0.65	0.61

Intersection Summary



Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	733	199	281	19	294	333	335	41
v/c Ratio	0.89	0.62	0.17	0.12	0.87	0.66	0.66	0.07
Control Delay	43.9	42.2	18.2	36.4	38.0	31.2	31.1	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.9	42.2	18.2	36.4	38.0	31.2	31.1	0.2
Queue Length 50th (ft)	183	91	46	9	37	157	158	0
Queue Length 95th (ft)	#278	#248	80	29	#178	215	215	0
Internal Link Dist (ft)	980		1139				1358	
Turn Bay Length (ft)		200				1000		255
Base Capacity (vph)	855	320	1673	155	339	640	645	693
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.86	0.62	0.17	0.12	0.87	0.52	0.52	0.06

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBT	WBR	NBL	NBT
Lane Group Flow (vph)	1319	884	914	1126	67	450
v/c Ratio	0.54	0.73	0.37	0.84	0.11	0.79
Control Delay	14.4	5.9	12.7	9.5	12.5	27.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.4	5.9	12.7	9.5	12.5	27.1
Queue Length 50th (ft)	129	0	81	7	17	146
Queue Length 95th (ft)	198	60	128	#294	34	207
Internal Link Dist (ft)	693		840			1223
Turn Bay Length (ft)						
Base Capacity (vph)	2448	1208	2448	1338	778	722
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.73	0.37	0.84	0.09	0.62

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	701	307	787	990	46	715
v/c Ratio	0.70	0.50	0.98	0.36	0.10	0.92
Control Delay	26.1	8.7	52.3	3.3	33.7	25.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.1	8.7	52.3	3.3	33.7	25.8
Queue Length 50th (ft)	163	43	374	64	10	33
Queue Length 95th (ft)	m180	m70	#620	46	27	#259
Internal Link Dist (ft)	1139			2865	1665	
Turn Bay Length (ft)		100	300			420
Base Capacity (vph)	1263	712	800	3023	474	774
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.43	0.98	0.33	0.10	0.92

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	381	373	343	357	961	1013	500
v/c Ratio	0.84	0.85	0.69	0.86	0.43	0.83	0.57
Control Delay	48.2	48.6	25.9	38.9	17.4	37.1	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.2	48.6	25.9	38.9	17.4	37.1	5.5
Queue Length 50th (ft)	206	202	112	170	260	297	0
Queue Length 95th (ft)	#326	#346	209	m#282	332	#452	77
Internal Link Dist (ft)		1410			440	1540	
Turn Bay Length (ft)	400		400	285			
Base Capacity (vph)	514	494	547	471	2234	1220	876
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.76	0.63	0.76	0.43	0.83	0.57

Intersection Summary

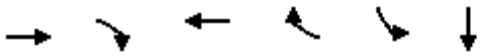
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	382	361	881	699	382	1271
v/c Ratio	0.88	0.81	0.70	0.73	0.89	0.56
Control Delay	54.9	41.2	30.1	8.8	52.8	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.4
Total Delay	54.9	41.2	30.1	8.8	52.8	5.7
Queue Length 50th (ft)	211	162	240	26	164	61
Queue Length 95th (ft)	#363	#300	314	156	m#238	101
Internal Link Dist (ft)		1071	1060			440
Turn Bay Length (ft)	900					
Base Capacity (vph)	476	480	1260	960	461	2276
Starvation Cap Reductn	0	0	0	0	0	454
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.75	0.70	0.73	0.83	0.70

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

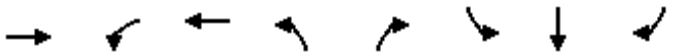


Lane Group	EBT	EBR	WBT	WBR	SBL	SBT
Lane Group Flow (vph)	1034	72	847	290	845	982
v/c Ratio	0.75	0.15	0.62	0.31	0.88	1.11
Control Delay	26.1	6.4	23.3	3.8	26.4	82.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.1	6.4	23.3	3.8	26.4	82.8
Queue Length 50th (ft)	137	0	107	0	277	~474
Queue Length 95th (ft)	181	26	145	27	#538	#702
Internal Link Dist (ft)	970		693			1282
Turn Bay Length (ft)		175				
Base Capacity (vph)	1372	468	1372	946	955	885
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.15	0.62	0.31	0.88	1.11

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	937	126	266	18	153	360	364	70
v/c Ratio	0.91	0.57	0.16	0.16	0.62	0.66	0.66	0.12
Control Delay	43.1	44.1	24.3	38.8	19.1	29.9	29.8	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.1	44.1	24.3	38.8	19.1	29.9	29.8	0.4
Queue Length 50th (ft)	240	63	57	9	0	167	169	0
Queue Length 95th (ft)	#376	#173	100	29	#65	230	232	1
Internal Link Dist (ft)	980		1139				1358	
Turn Bay Length (ft)		200				1000		255
Base Capacity (vph)	1027	221	1676	115	246	662	670	711
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.57	0.16	0.16	0.62	0.54	0.54	0.10

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBT	WBR	NBL	NBT
Lane Group Flow (vph)	1454	438	945	756	130	369
v/c Ratio	0.52	0.41	0.34	0.62	0.27	0.80
Control Delay	11.0	2.5	9.5	3.5	18.4	31.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.0	2.5	9.5	3.5	18.4	31.5
Queue Length 50th (ft)	127	0	72	0	41	121
Queue Length 95th (ft)	183	41	109	51	75	204
Internal Link Dist (ft)	693		840			1223
Turn Bay Length (ft)						
Base Capacity (vph)	2812	1056	2812	1221	585	557
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.41	0.34	0.62	0.22	0.66

Intersection Summary



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	938	174	413	1153	148	1078
v/c Ratio	0.81	0.29	1.26	0.58	0.12	1.31
Control Delay	26.2	7.4	171.8	13.2	18.8	167.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.2	7.4	171.8	13.2	18.8	167.6
Queue Length 50th (ft)	172	16	~263	177	26	~580
Queue Length 95th (ft)	m214	m23	#406	211	44	#757
Internal Link Dist (ft)	1139			2865	1665	
Turn Bay Length (ft)		100	300			420
Base Capacity (vph)	1263	644	327	2075	1236	822
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.27	1.26	0.56	0.12	1.31

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	357	351	322	255	1083	1009	493
v/c Ratio	0.79	0.81	0.70	0.79	0.48	0.72	0.53
Control Delay	43.5	43.5	29.5	39.9	20.2	29.5	4.8
Queue Delay	0.0	0.0	0.0	0.0	1.1	0.0	0.0
Total Delay	43.5	43.5	29.5	39.9	21.3	29.5	4.8
Queue Length 50th (ft)	195	191	125	130	316	260	0
Queue Length 95th (ft)	283	284	209	m193	419	#423	72
Internal Link Dist (ft)		1410			404	1540	
Turn Bay Length (ft)				285			400
Base Capacity (vph)	552	528	545	391	2239	1408	930
Starvation Cap Reductn	0	0	0	0	851	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.66	0.59	0.65	0.78	0.72	0.53

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	367	361	904	591	368	1224
v/c Ratio	0.88	0.83	0.69	0.62	0.88	0.53
Control Delay	56.0	41.8	29.0	5.5	50.0	4.6
Queue Delay	1.7	1.1	0.0	0.0	0.0	0.3
Total Delay	57.7	42.8	29.0	5.5	50.0	5.0
Queue Length 50th (ft)	205	156	244	0	119	45
Queue Length 95th (ft)	#352	#298	318	79	#320	91
Internal Link Dist (ft)		1071	1124			404
Turn Bay Length (ft)	900					
Base Capacity (vph)	457	472	1310	946	461	2312
Starvation Cap Reductn	0	0	0	0	0	493
Spillback Cap Reductn	23	23	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.80	0.69	0.62	0.80	0.67

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

APPENDIX 6.7:

E+P (BUILDING 1) CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P (Bldg 1)
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-71 SB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	17
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Southbound, N of Central	4275	3
2	Diverge	Diverge	Central SB Off-Ramp	1500	3
3	Basic	Basic	Cetnral SB Off-Ramp to Loop On-Ramp	1125	3
4	Merge	Merge	Central SB Loop On-Ramp	1500	3
5	Basic	Basic	Central SB Loop On-Ramp to On-Ramp	1025	3
6	Merge	Merge	Central SB On-Ramp	1500	3
7	Basic	Basic	Southbound, Central to Pine	5500	2
8	Diverge	Diverge	Pine SB Off-Ramp	1500	2
9	Basic	Basic	Pine SB Off-Ramp to On-Ramp	2315	2
10	Merge	Merge	Pine SB On-Ramp	1500	2
11	Basic	Basic	Southbound, Pine to Euclid	4500	2
12	Diverge	Diverge	Euclid SB Off-Ramp	1500	2
13	Basic	Basic	Euclid SB Off-Ramp to Loop On-Ramp	1460	2
14	Merge	Merge	Euclid SB Loop On-Ramp	1500	2
15	Basic	Basic	Euclid SB Loop On-Ramp to On-Ramp	1200	2
16	Merge	Merge	Euclid SB On-Ramp	1500	2
17	Basic	Basic	Southbound, S of Euclid	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.914	1973	7131	0.28	67.7	9.7	A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	

1	0.92	0.92	0.914	0.909	1973	891	7200	2100	0.27	0.42	61.9	59.4	10.6	16.6	B
Segment 3: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.931		1067		7116		0.15		67.2		5.3		A
Segment 4: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.931	0.840	1274	207	7200	1900	0.18	0.11	64.0	61.3	6.6	9.5	A
Segment 5: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.914		1277		7116		0.18		67.2		6.3		A
Segment 6: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.914	0.980	1379	102	7200	2100	0.19	0.05	64.5	61.6	7.1	10.0	A
Segment 7: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.922		1375		4726		0.29		66.3		10.4		A
Segment 8: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.922	0.943	1375	206	4800	2100	0.29	0.10	61.1	61.1	11.3	14.5	B
Segment 9: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.914		1174		4718		0.25		65.9		8.9		A
Segment 10: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.914	0.943	1214	40	4800	2100	0.25	0.02	61.7	61.7	9.8	12.5	B
Segment 11: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.914		1215		4726		0.26		66.3		9.2		A
Segment 12: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**

	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.914	0.917	1215	750	4800	2100	0.25	0.36	59.8	59.8	10.2	13.4	B

Segment 13: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.931	454	4744	0.10	67.2	3.4	A

Segment 14: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.931	0.885	986	532	4800	1900	0.21	0.28	61.4	61.4	8.0	9.8	A

Segment 15: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.899	994	4744	0.21	67.2	7.4	A

Segment 16: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.899	0.926	1725	731	4800	2100	0.36	0.35	61.5	61.5	14.0	15.8	B

Segment 17: Basic

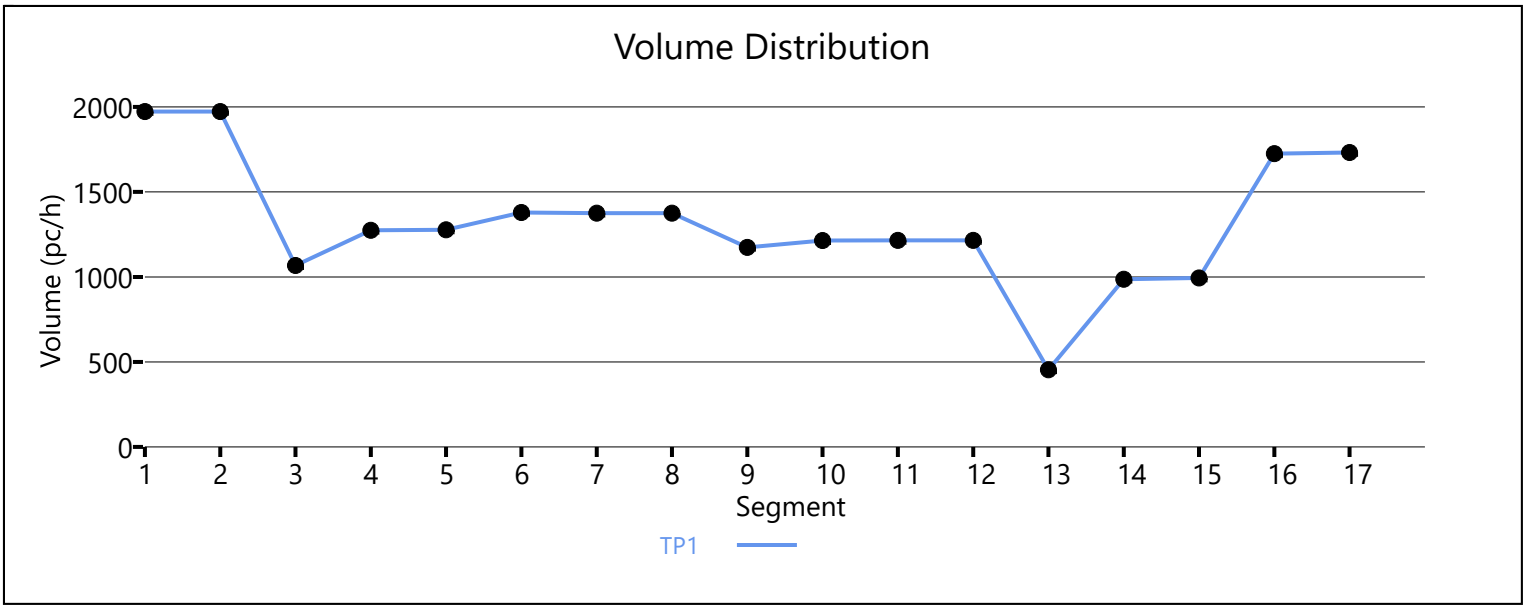
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.907	1732	4554	0.38	57.7	15.0	B

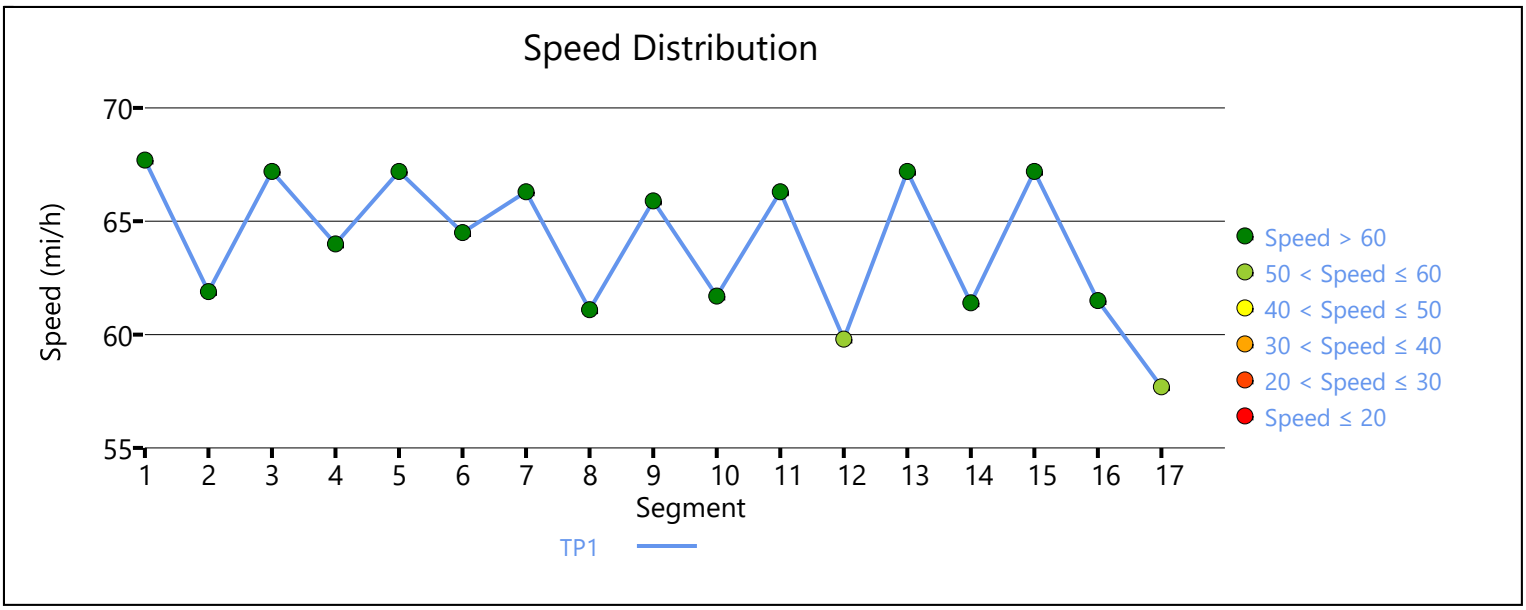
Facility Time Period Results

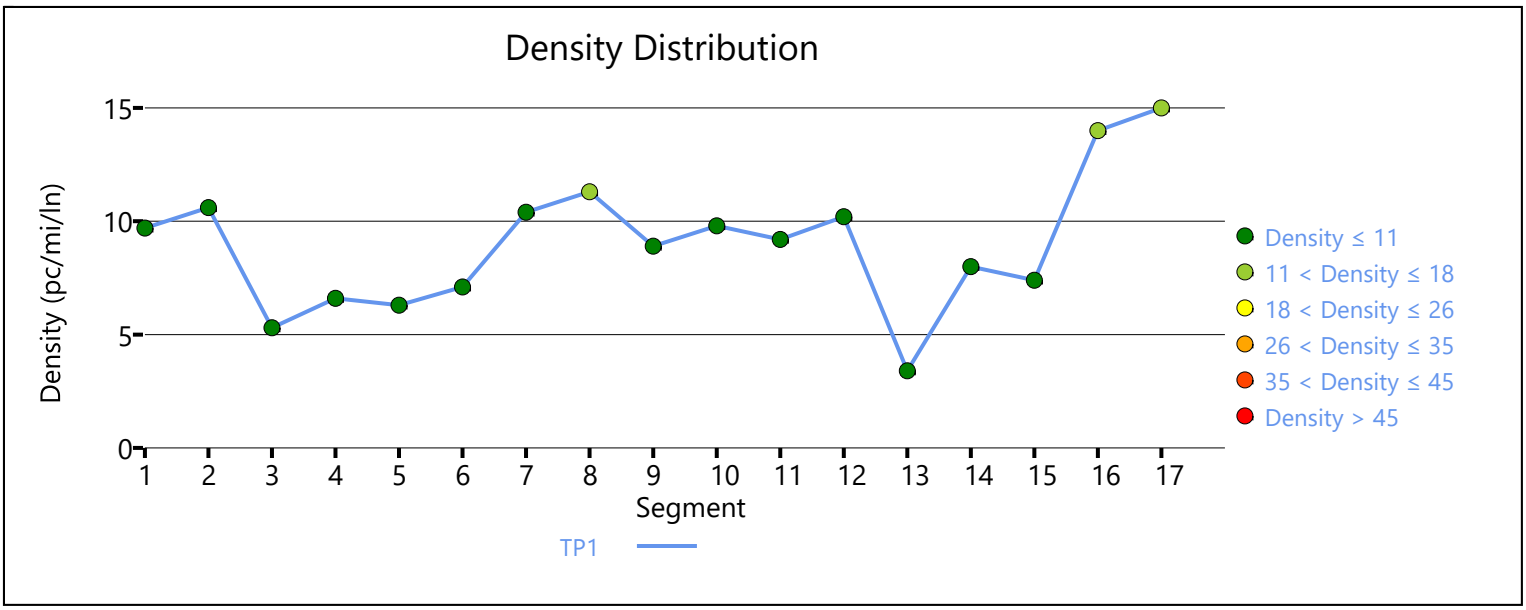
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	63.6	9.7	8.9	6.9	A

Facility Overall Results

Space Mean Speed, mi/h	63.6	Density, veh/mi/ln	8.9
Average Travel Time, min	6.9	Density, pc/mi/ln	9.7







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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P (Bldg 1)
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-71 NB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	15
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Northbound, S of Euclid	5280	3
2	Diverge	Basic	Euclid NB Off-Ramp	1500	3
3	Basic	Basic	Euclid NB Off-Ramp to On-Ramp	1500	2
4	Merge	Merge	Euclid NB On-Ramp	1500	2
5	Basic	Basic	Northbound, Euclid to Pine	4500	2
6	Diverge	Diverge	Pine NB Off-Ramp	1500	2
7	Basic	Basic	Pine NB Off-Ramp to On-Ramp	2225	2
8	Merge	Basic	Pine NB On-Ramp	1500	2
9	Basic	Basic	Northbound, Pine to Central	5500	3
10	Diverge	Diverge	Central NB Off-Ramp	1500	3
11	Basic	Basic	Central NB Off-Ramp to Loop On-Ramp	1050	3
12	Merge	Merge	Central NB Loop On-Ramp	1500	3
13	Basic	Basic	Central NB Loop On-Ramp to On-Ramp	1040	3
14	Merge	Merge	Central NB On-Ramp	1500	3
15	Basic	Basic	Northbound, N of Central	4275	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.763	1905	6831	0.28	57.7	11.0	A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.763	0.901	1905	741	7200	4200	0.26	0.18	70.0	-	9.1	-	A

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.676		1163		4754		0.24		67.7		8.6		A
Segment 4: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.676	0.943	2290	1127	4800	1900	0.48	0.59	60.9	60.9	18.8	18.6	B
Segment 5: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.806		2294		4736		0.48		66.8		17.2		B
Segment 6: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.806	0.952	2294	73	4800	2100	0.48	0.03	61.5	61.5	18.7	22.7	C
Segment 7: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.806		2208		4726		0.47		66.3		16.7		B
Segment 8: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.806	0.980	2696	488	4800	2100	0.46	0.23	70.0	-	15.8	-	B
Segment 9: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.833		2710		7089		0.38		66.3		13.6		B
Segment 10: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.833	0.943	2710	496	7200	2100	0.38	0.24	64.1	60.4	14.1	20.4	C
Segment 11: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.813		2202		7116		0.31		67.2		10.9		A
Segment 12: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.813	0.971	3055	853	7200	1900	0.42	0.45	62.9	60.8	16.2	18.7	B

Segment 13: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.855	3063	7116	0.43	67.2	15.2	B

Segment 14: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.855	0.935	4135	1072	7200	2100	0.57	0.51	62.2	60.2	22.2	24.6	C

Segment 15: Basic

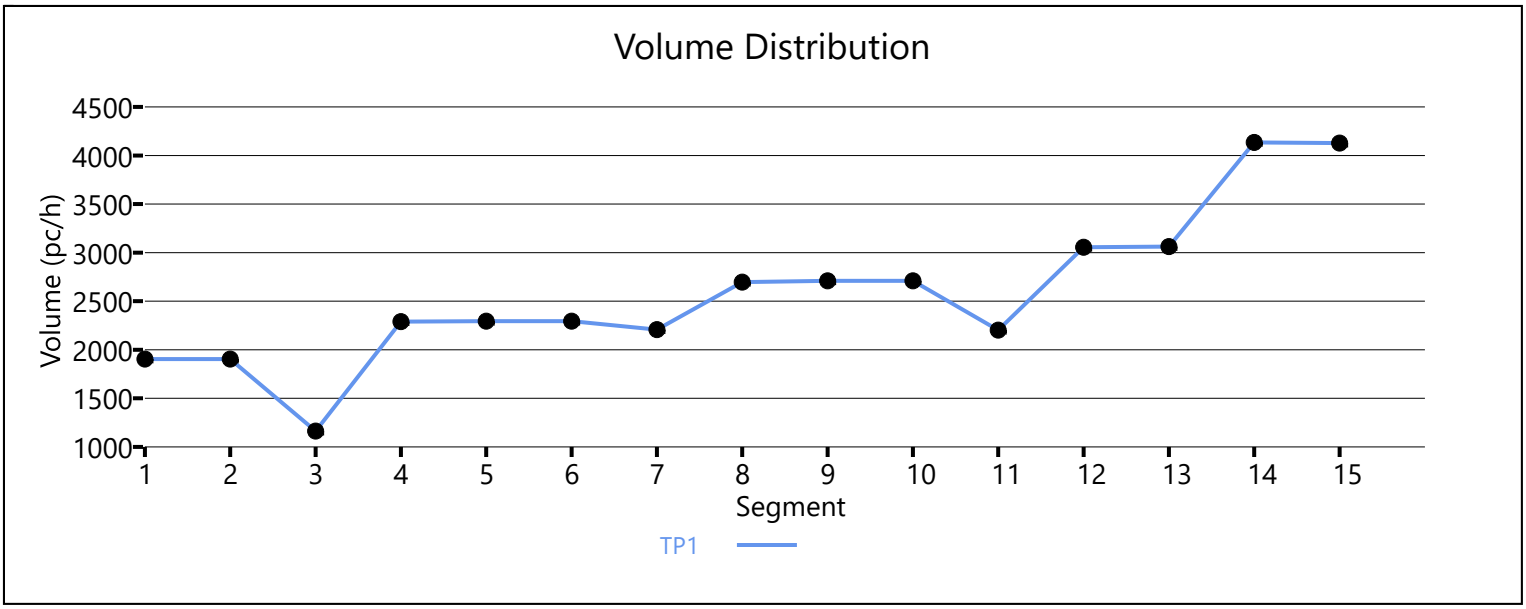
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.877	4128	7131	0.58	67.6	20.4	C

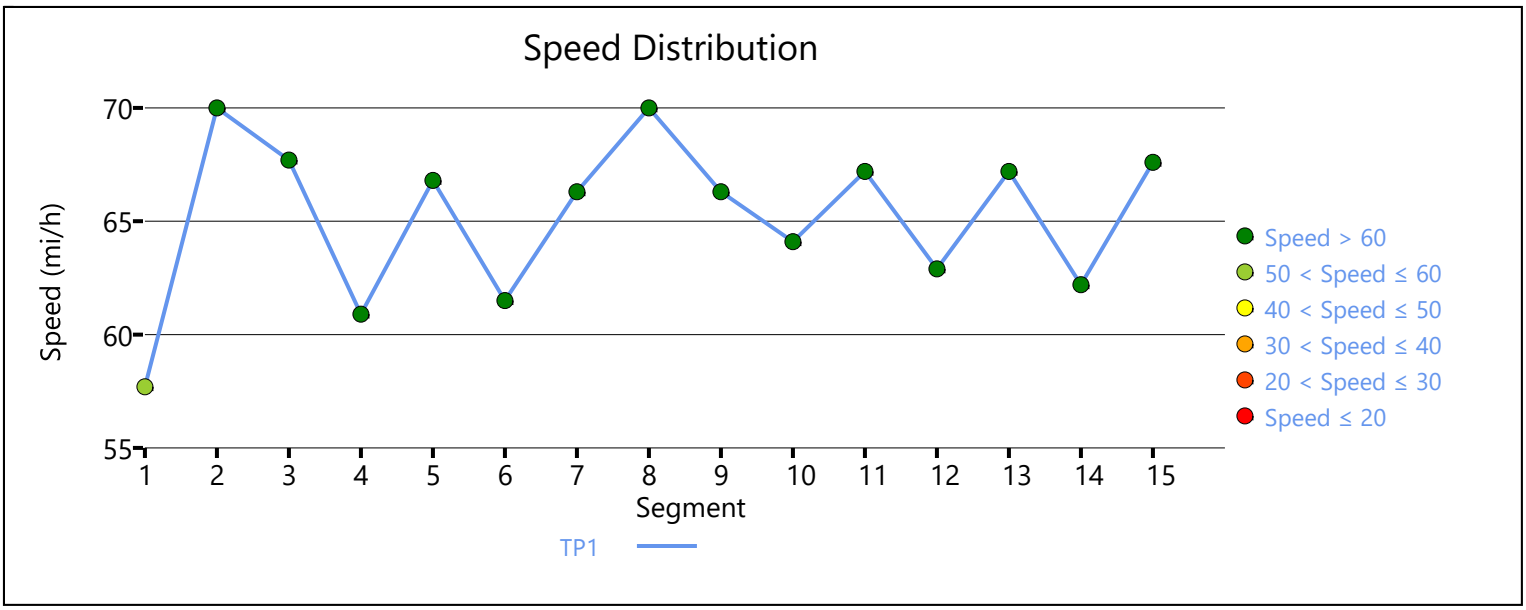
Facility Time Period Results

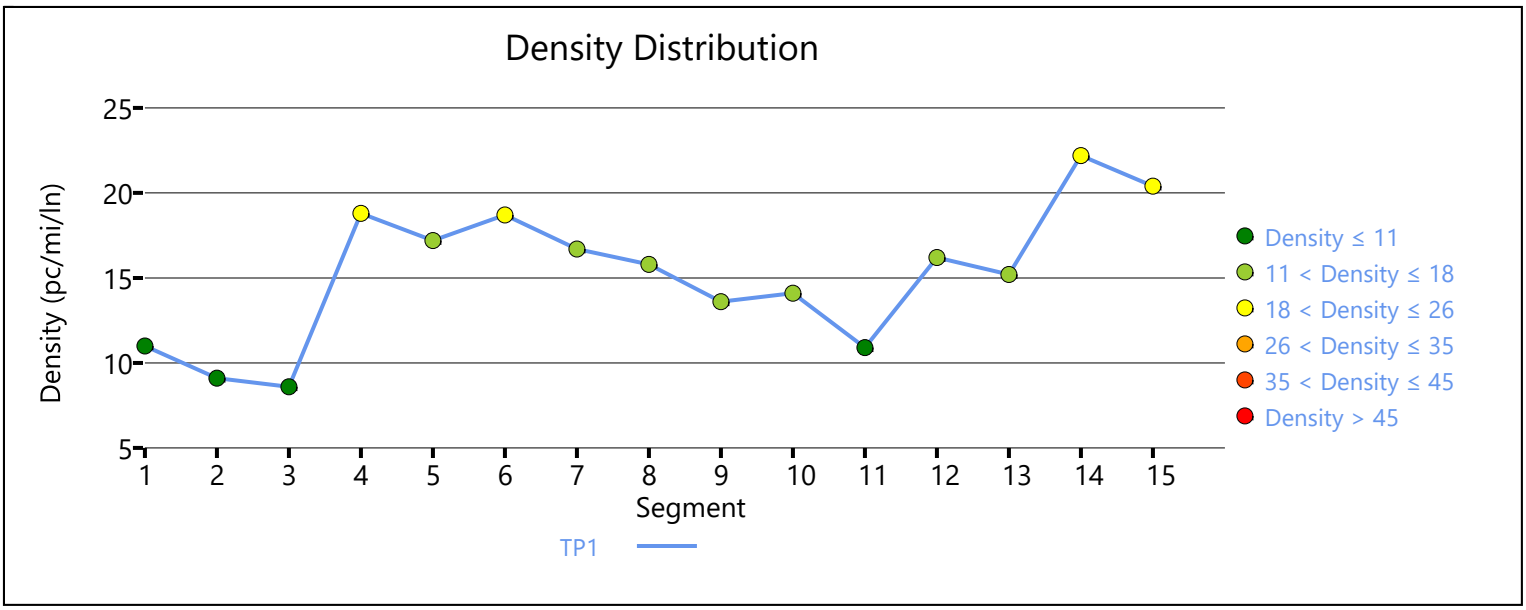
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.0	15.1	12.3	6.3	B

Facility Overall Results

Space Mean Speed, mi/h	65.0	Density, veh/mi/ln	12.3
Average Travel Time, min	6.3	Density, pc/mi/ln	15.1







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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P (Bldg 1)
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-60 WB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Euclid	2500	4
2	Diverge	Diverge	Off-Ramp at Euclid	1500	4
3	Basic	Basic	Between	2200	4
4	Merge	Merge	On-Ramp at Euclid	1500	4
5	Basic	Basic	West of Euclid	1500	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	8345	9548	0.87	60.2	34.7	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.952	0.813	8345	1040	9600	2100	0.87	0.50	65.1	59.0	32.0	36.4	E

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	7311	9548	0.77	64.7	28.3	D

Segment 4: Merge

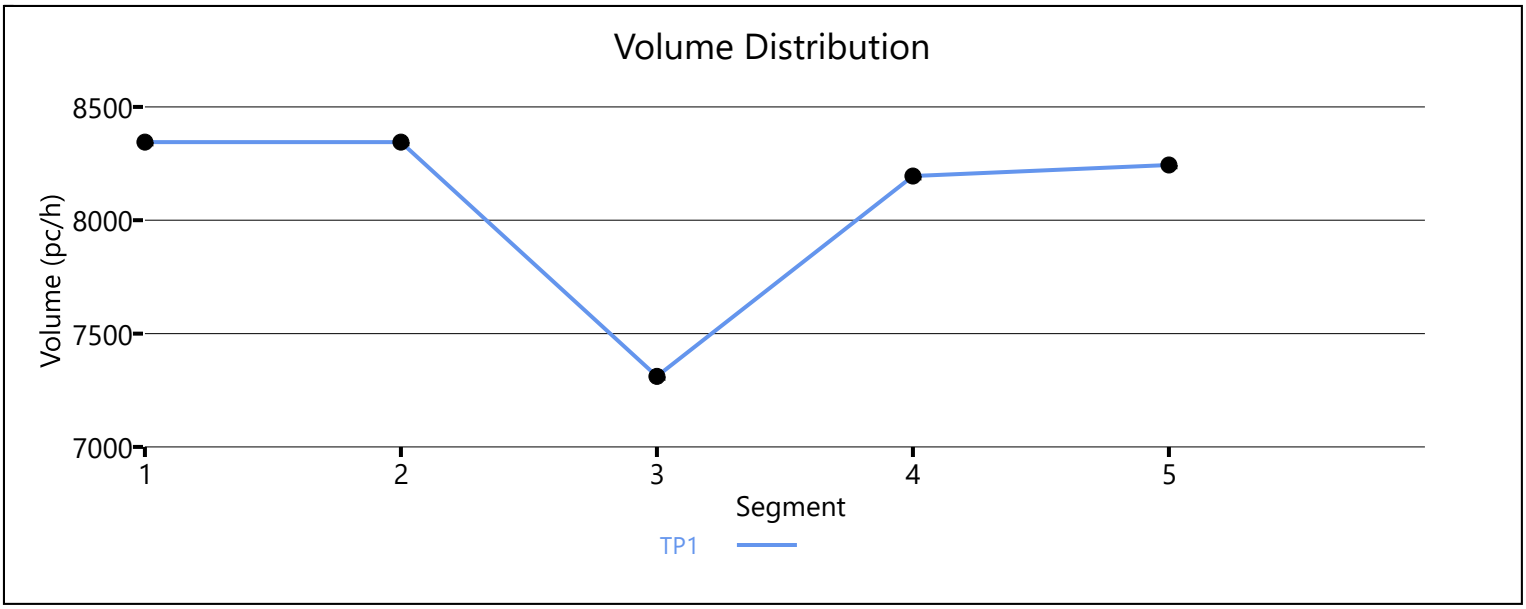
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.847	8195	884	9600	2100	0.85	0.42	61.3	58.6	33.4	28.6	D

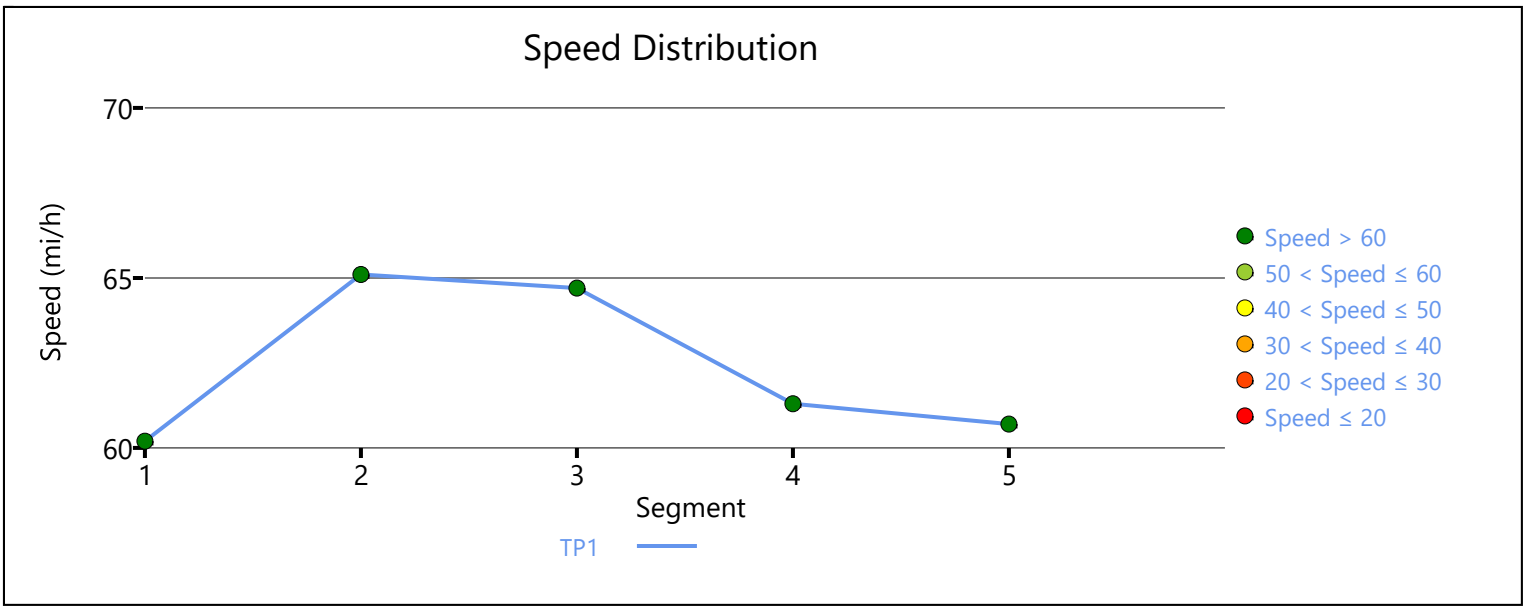
Segment 5: Basic

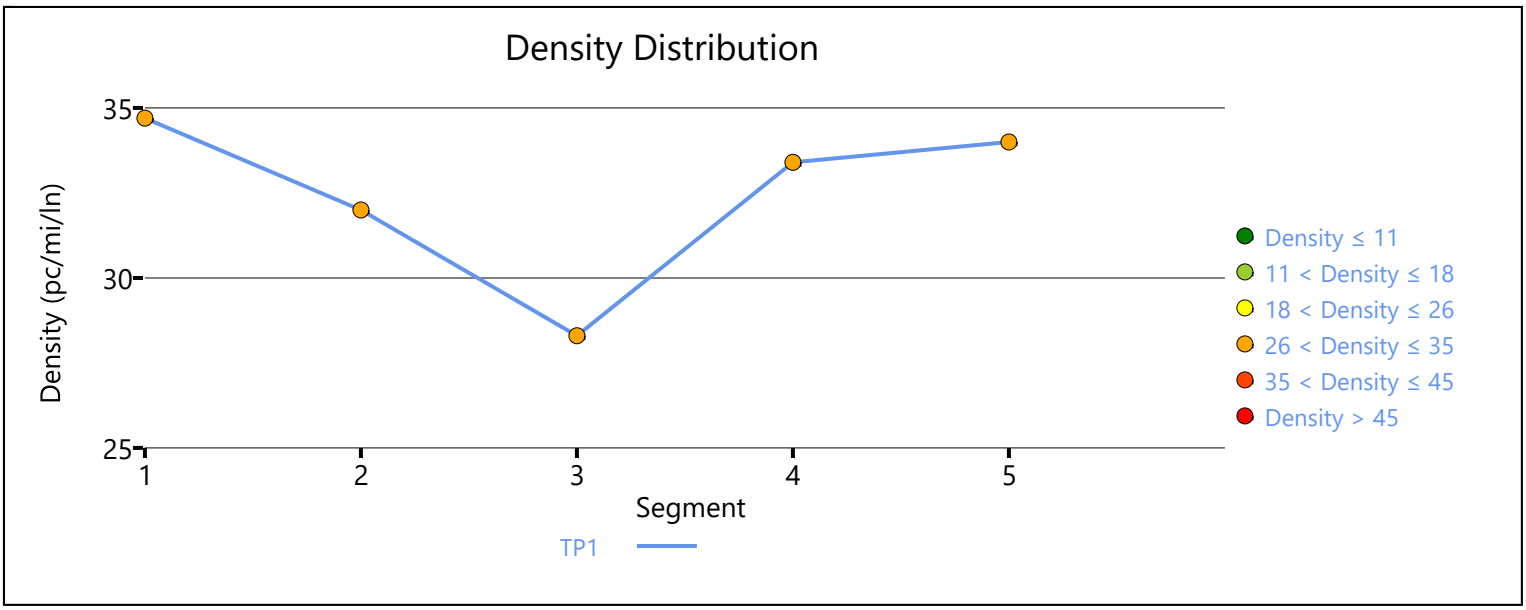
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	8244	9548	0.86	60.7	34.0	D

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	62.2	32.4	31.1	1.7	D

Facility Overall Results			
Space Mean Speed, mi/h	62.2	Density, veh/mi/ln	31.1
Average Travel Time, min	1.7	Density, pc/mi/ln	32.4







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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P (Bldg 1)
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-60 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Euclid	1370	4
2	Diverge	Diverge	Off-Ramp at Euclid	1500	4
3	Basic	Basic	Between	2100	4
4	Merge	Merge	On-Ramp at Euclid	1500	4
5	Basic	Basic	East of Euclid	3000	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	7821	9548	0.82	62.7	31.2	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.855	7821	746	9600	2100	0.81	0.36	65.8	59.8	29.7	32.2	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	7026	9548	0.74	65.6	26.8	D

Segment 4: Merge

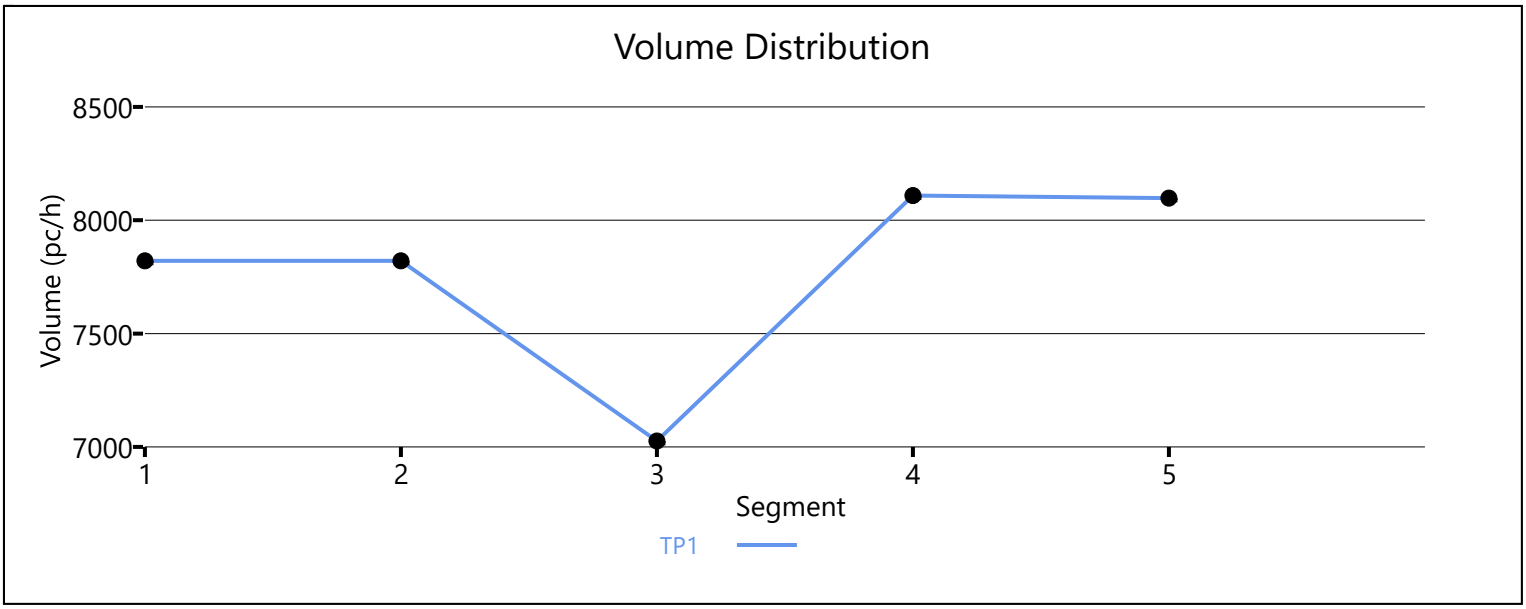
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.840	8109	1083	9600	2100	0.84	0.52	61.2	58.2	33.1	29.0	D

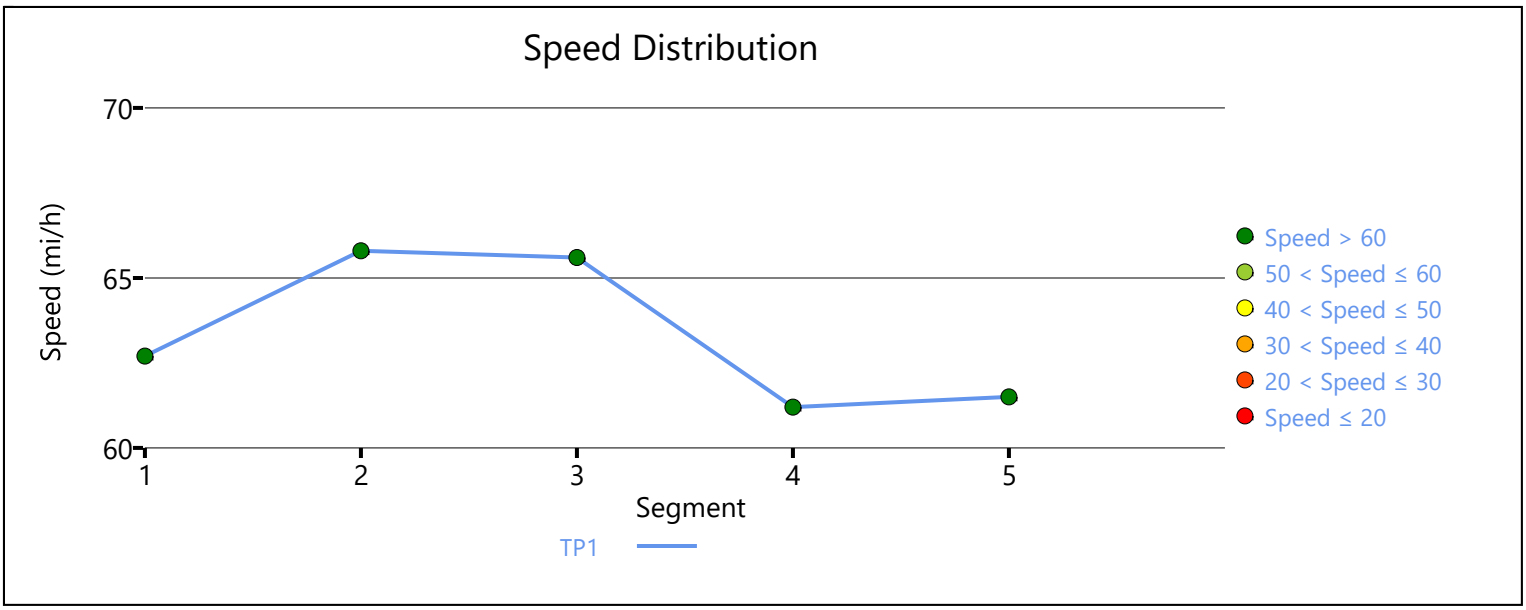
Segment 5: Basic

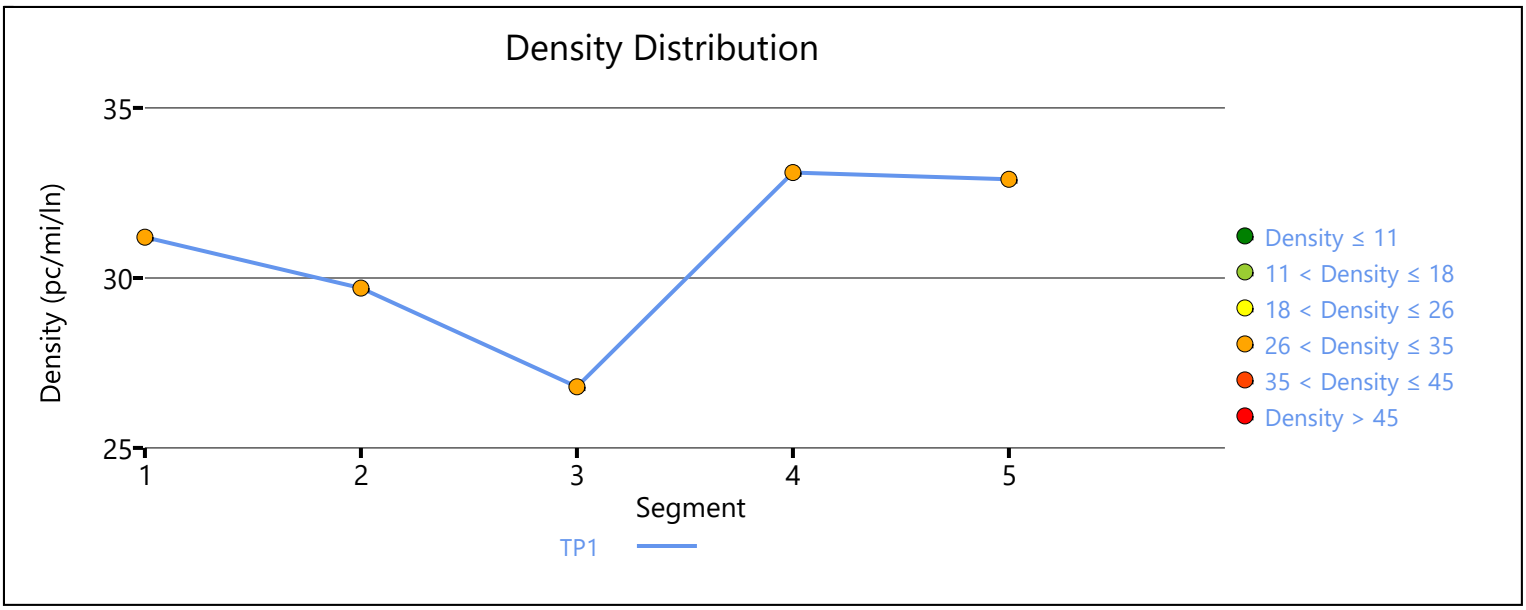
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	8098	9548	0.85	61.5	32.9	D

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	63.1	30.8	30.4	1.7	D

Facility Overall Results			
Space Mean Speed, mi/h	63.1	Density, veh/mi/ln	30.4
Average Travel Time, min	1.7	Density, pc/mi/ln	30.8







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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P (Bldg 1)
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-71 SB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	17
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Southbound, N of Central	4275	3
2	Diverge	Diverge	Central SB Off-Ramp	1500	3
3	Basic	Basic	Cetnral SB Off-Ramp to Loop On-Ramp	1125	3
4	Merge	Merge	Central SB Loop On-Ramp	1500	3
5	Basic	Basic	Central SB Loop On-Ramp to On-Ramp	1025	3
6	Merge	Merge	Central SB On-Ramp	1500	3
7	Basic	Basic	Southbound, Central to Pine	5500	2
8	Diverge	Diverge	Pine SB Off-Ramp	1500	2
9	Basic	Basic	Pine SB Off-Ramp to On-Ramp	2315	2
10	Merge	Merge	Pine SB On-Ramp	1500	2
11	Basic	Basic	Southbound, Pine to Euclid	4500	2
12	Diverge	Diverge	Euclid SB Off-Ramp	1500	2
13	Basic	Basic	Euclid SB Off-Ramp to Loop On-Ramp	1460	2
14	Merge	Merge	Euclid SB Loop On-Ramp	1500	2
15	Basic	Basic	Euclid SB Loop On-Ramp to On-Ramp	1200	2
16	Merge	Merge	Euclid SB On-Ramp	1500	2
17	Basic	Basic	Southbound, S of Euclid	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.939	3757	7131	0.53	67.7	18.5	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	

1	0.92	0.92	0.939	0.952	3757	1831	7200	2100	0.52	0.87	60.3	57.0	20.8	28.1	D
Segment 3: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.939		1901		7116		0.27		67.2		9.4		A
Segment 4: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.939	0.952	2192	291	7200	1900	0.30	0.15	63.7	61.1	11.5	13.9	B
Segment 5: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.939		2196		7116		0.31		67.2		10.9		A
Segment 6: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.939	0.901	2270	74	7200	2100	0.32	0.04	64.1	61.5	11.8	14.0	B
Segment 7: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.939		2267		4726		0.48		66.3		17.1		B
Segment 8: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.939	0.962	2267	1129	4800	2100	0.47	0.54	58.8	58.8	19.3	22.2	C
Segment 9: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.922		1131		4718		0.24		65.9		8.6		A
Segment 10: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.922	0.926	1191	60	4800	2100	0.25	0.03	61.7	61.7	9.7	12.3	B
Segment 11: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.922		1191		4726		0.25		66.3		9.0		A
Segment 12: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**

	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.922	0.952	1191	837	4800	2100	0.25	0.40	59.6	59.6	10.0	13.2	B

Segment 13: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.892	338	4744	0.07	67.2	2.5	A

Segment 14: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.892	0.943	1105	767	4800	1900	0.23	0.40	61.4	61.4	9.0	10.6	B

Segment 15: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.914	1120	4744	0.24	67.2	8.3	A

Segment 16: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.914	0.971	1848	728	4800	2100	0.38	0.35	61.5	61.5	15.0	16.8	B

Segment 17: Basic

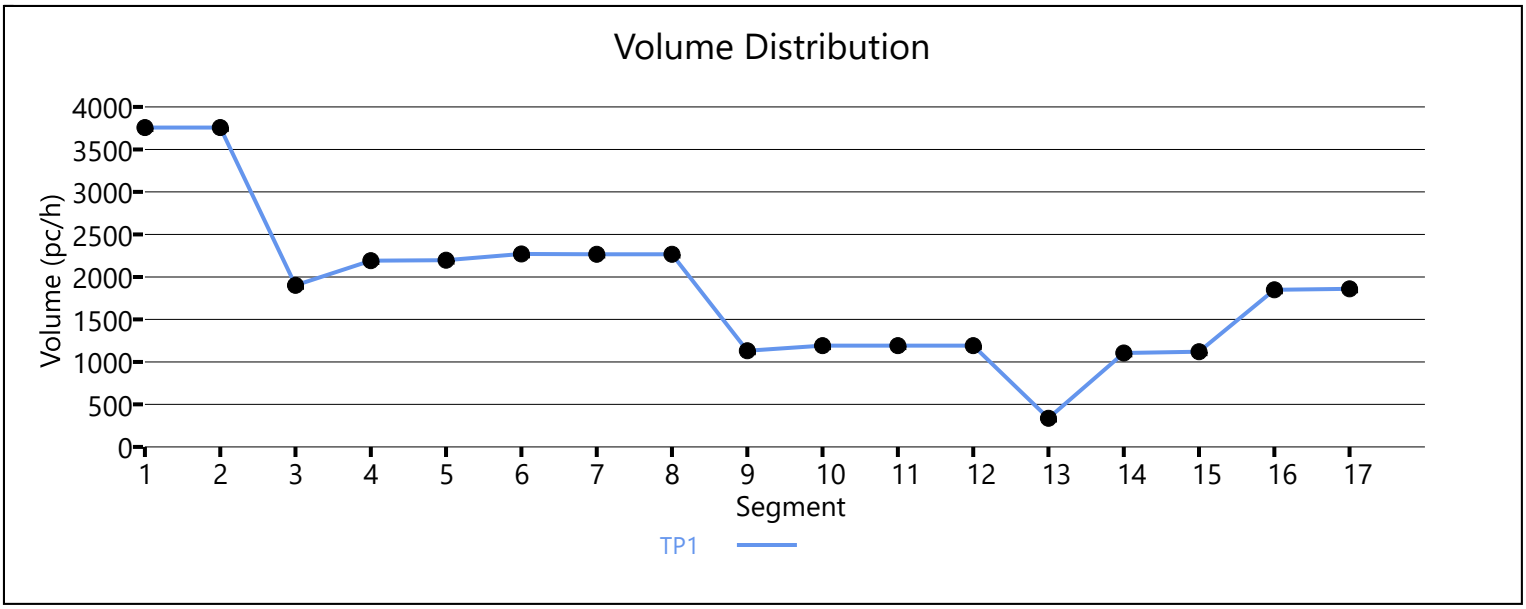
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.931	1859	4554	0.41	57.7	16.1	B

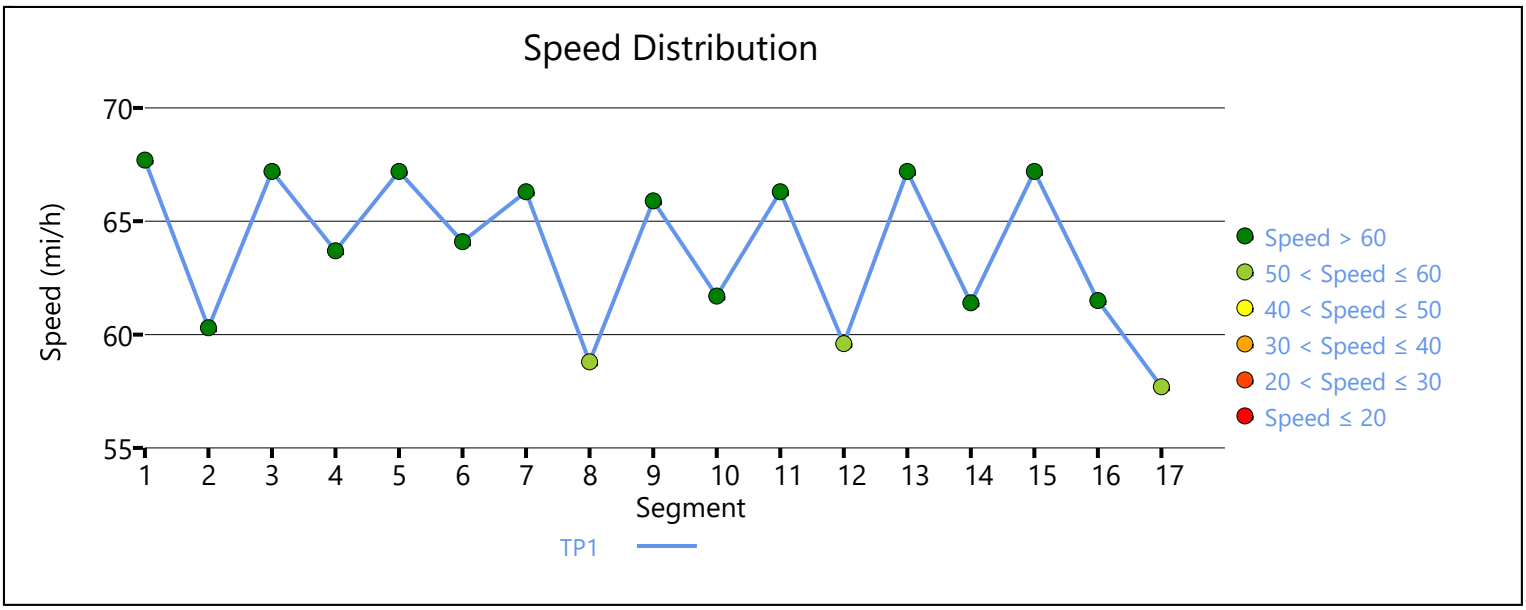
Facility Time Period Results

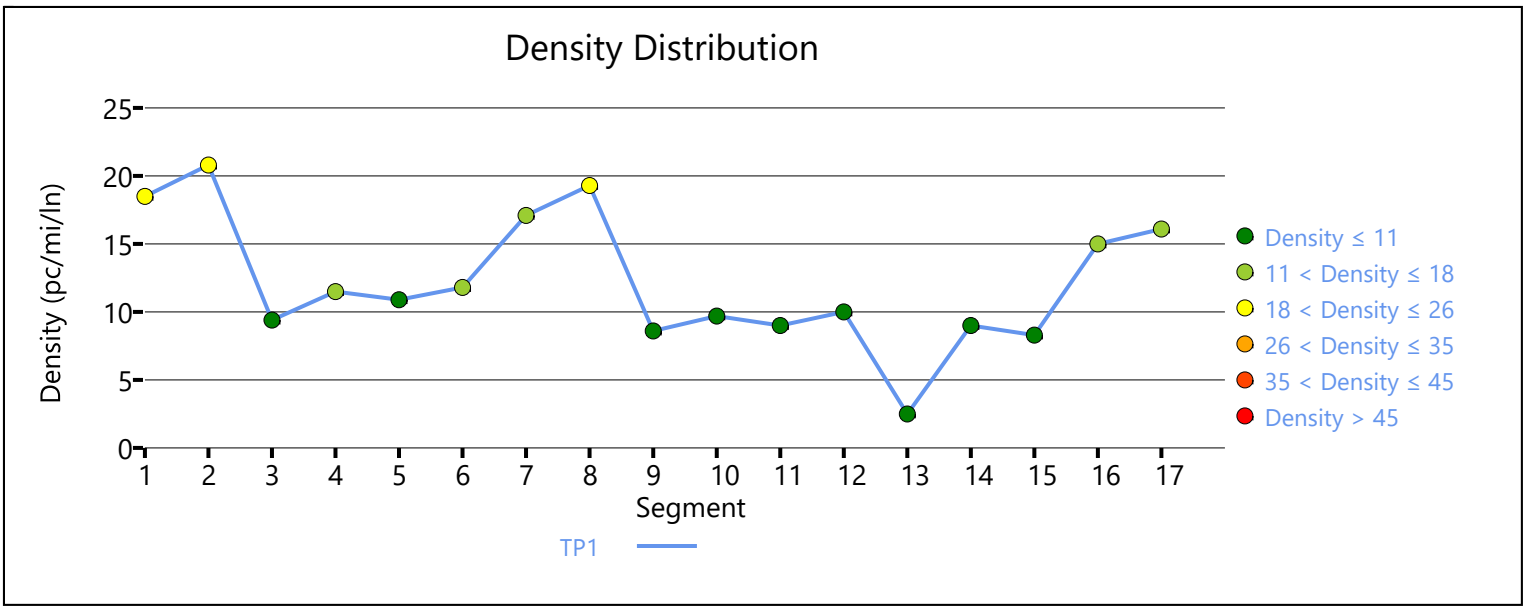
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	63.8	13.6	12.6	6.9	B

Facility Overall Results

Space Mean Speed, mi/h	63.8	Density, veh/mi/ln	12.6
Average Travel Time, min	6.9	Density, pc/mi/ln	13.6







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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P (Bldg 1)
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-71 NB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	15
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Northbound, S of Euclid	5280	3
2	Diverge	Basic	Euclid NB Off-Ramp	1500	3
3	Basic	Basic	Euclid NB Off-Ramp to On-Ramp	1500	2
4	Merge	Merge	Euclid NB On-Ramp	1500	2
5	Basic	Basic	Northbound, Euclid to Pine	4500	2
6	Diverge	Diverge	Pine NB Off-Ramp	1500	2
7	Basic	Basic	Pine NB Off-Ramp to On-Ramp	2225	2
8	Merge	Basic	Pine NB On-Ramp	1500	2
9	Basic	Basic	Northbound, Pine to Central	5500	3
10	Diverge	Diverge	Central NB Off-Ramp	1500	3
11	Basic	Basic	Central NB Off-Ramp to Loop On-Ramp	1050	3
12	Merge	Merge	Central NB Loop On-Ramp	1500	3
13	Basic	Basic	Central NB Loop On-Ramp to On-Ramp	1040	3
14	Merge	Merge	Central NB On-Ramp	1500	3
15	Basic	Basic	Northbound, N of Central	4275	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.877	3293	6831	0.48	57.7	19.0	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.877	0.943	3293	1130	7200	4200	0.46	0.27	70.0	-	15.7	-	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.840		2170		4754		0.46		67.7		16.0		B
Segment 4: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.840	0.962	2713	543	4800	1900	0.57	0.29	60.3	60.3	22.5	22.2	C
Segment 5: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.862		2721		4736		0.57		66.8		20.4		C
Segment 6: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.862	0.952	2721	127	4800	2100	0.57	0.06	61.3	61.3	22.2	26.4	C
Segment 7: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.862		2581		4726		0.55		66.3		19.5		C
Segment 8: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.862	0.971	2941	360	4800	2100	0.54	0.17	69.9	-	18.5	-	C
Segment 9: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.870		2960		7089		0.42		66.3		14.9		B
Segment 10: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.870	0.909	2960	538	7200	2100	0.41	0.26	64.1	60.3	15.4	21.7	C
Segment 11: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.862		2420		7116		0.34		67.2		12.0		B
Segment 12: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.862	0.971	2889	469	7200	1900	0.40	0.25	63.3	61.0	15.2	16.9	B

Segment 13: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.885	2872	7116	0.40	67.2	14.2	B

Segment 14: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.885	0.943	3625	753	7200	2100	0.50	0.36	62.9	60.9	19.2	21.4	C

Segment 15: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.893	3641	7131	0.51	67.7	17.9	B

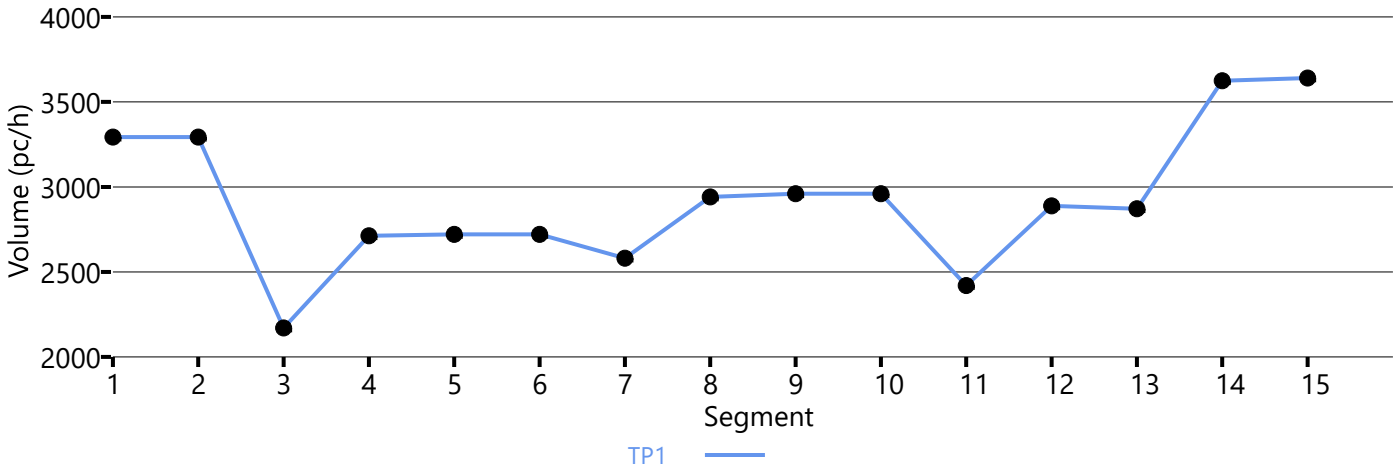
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	64.5	17.5	15.3	6.3	B

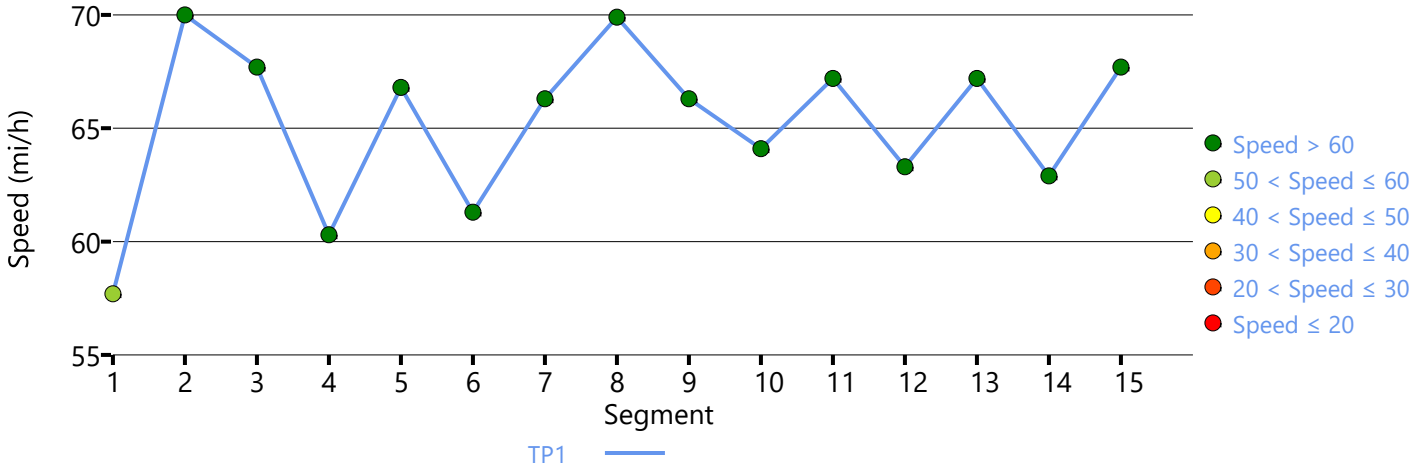
Facility Overall Results

Space Mean Speed, mi/h	64.5	Density, veh/mi/ln	15.3
Average Travel Time, min	6.3	Density, pc/mi/ln	17.5

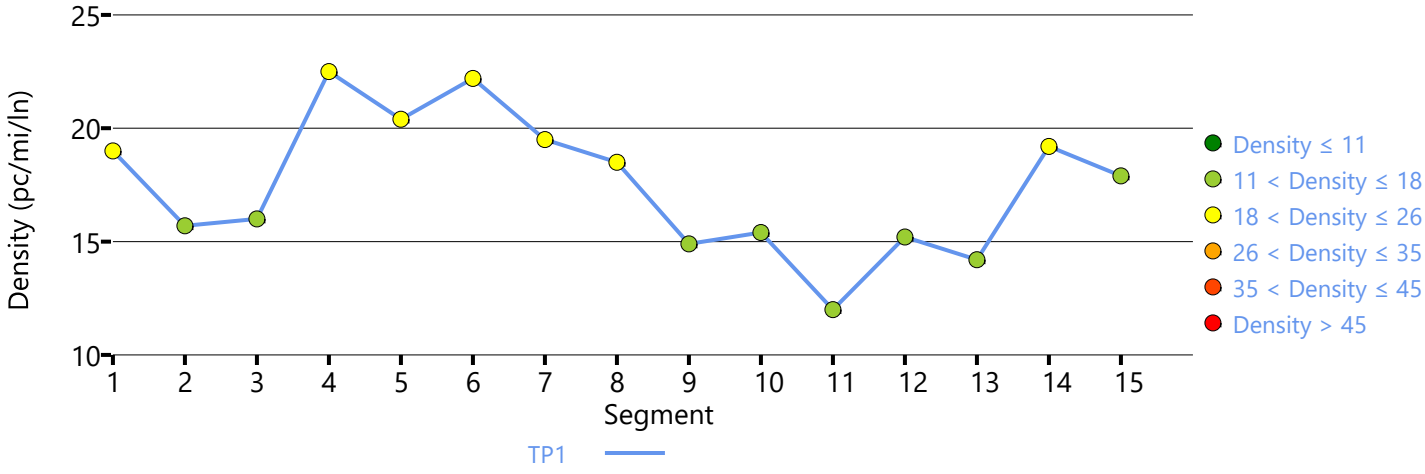
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P (Bldg 1)
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-60 WB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Euclid	2500	4
2	Diverge	Diverge	Off-Ramp at Euclid	1500	4
3	Basic	Basic	Between	2200	4
4	Merge	Merge	On-Ramp at Euclid	1500	4
5	Basic	Basic	West of Euclid	1500	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	8163	9548	0.85	61.1	33.4	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.870	8163	1038	9600	2100	0.85	0.49	65.2	59.1	31.3	35.7	E

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	7158	9548	0.75	65.2	27.5	D

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.893	7935	777	9600	2100	0.83	0.37	61.9	59.4	32.0	27.4	C

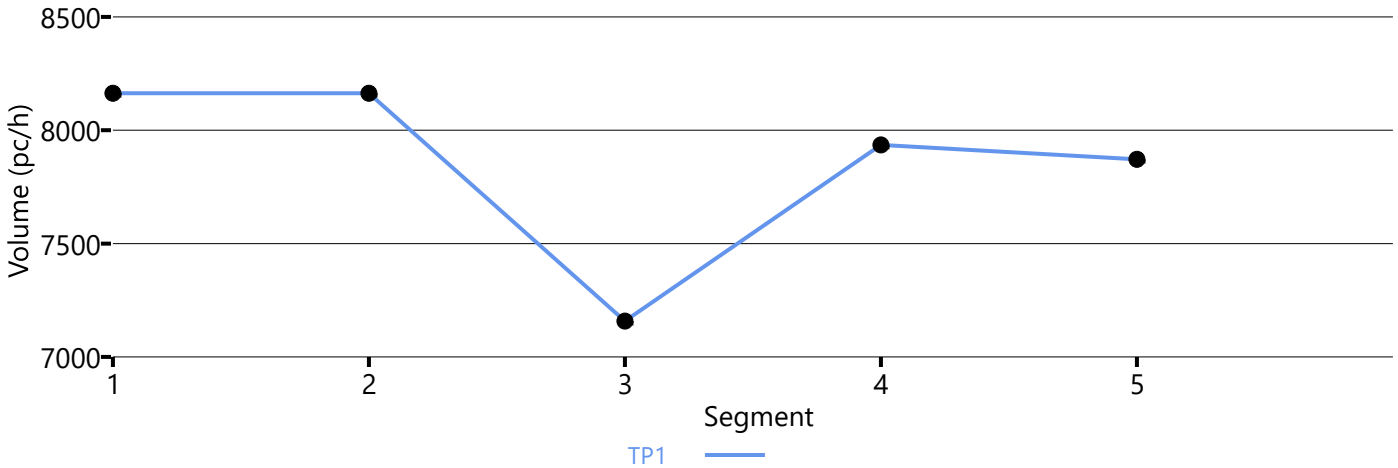
Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	7872	9548	0.82	62.5	31.5	D

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	63.0	31.1	30.1	1.7	D

Facility Overall Results			
Space Mean Speed, mi/h	63.0	Density, veh/mi/ln	30.1
Average Travel Time, min	1.7	Density, pc/mi/ln	31.1

Volume Distribution



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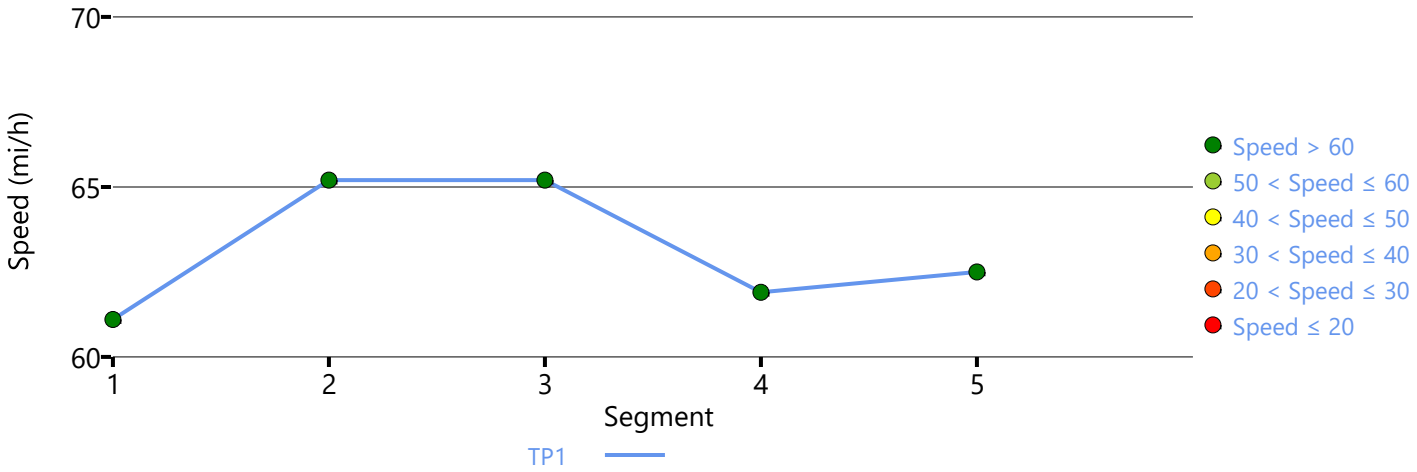

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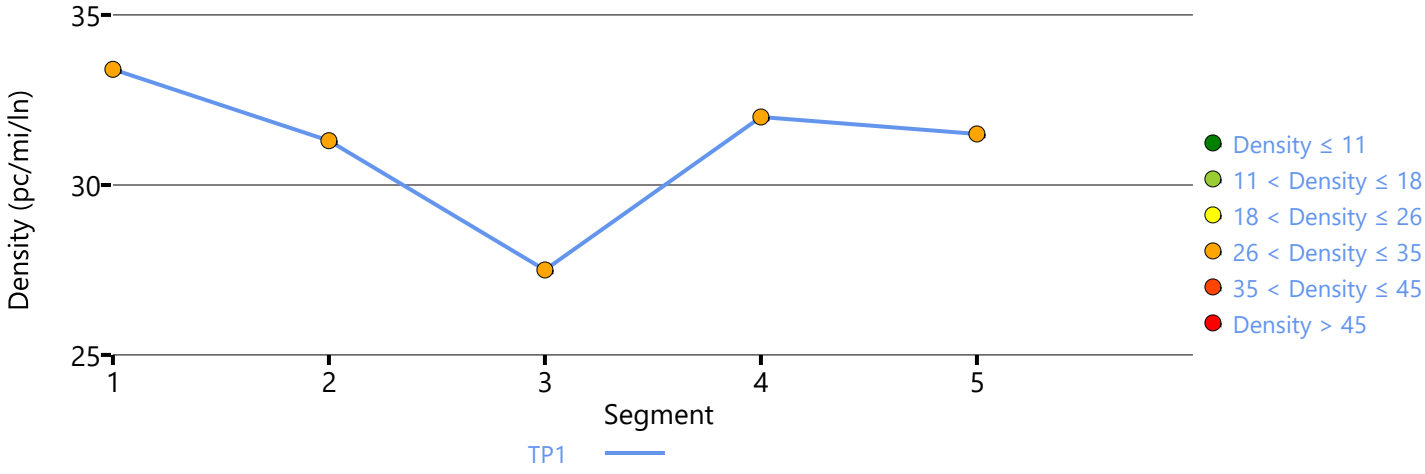

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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P (Bldg 1)
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-60 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Euclid	1370	4
2	Diverge	Diverge	Off-Ramp at Euclid	1500	4
3	Basic	Basic	Between	2100	4
4	Merge	Merge	On-Ramp at Euclid	1500	4
5	Basic	Basic	East of Euclid	3000	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	6812	9548	0.71	66.2	25.7	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.862	6812	765	9600	2100	0.71	0.36	66.1	59.7	25.8	28.6	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	6016	9548	0.63	67.9	22.2	C

Segment 4: Merge

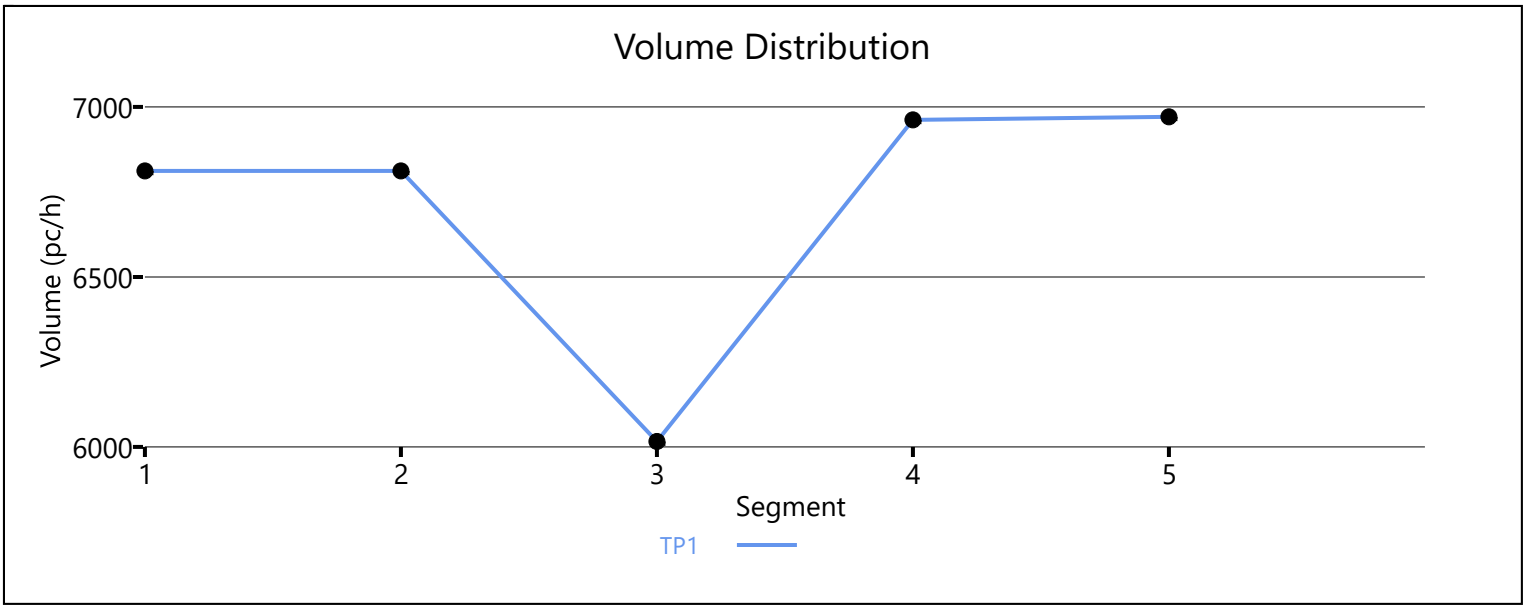
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.862	6962	946	9600	2100	0.73	0.45	62.9	60.5	27.7	24.8	C

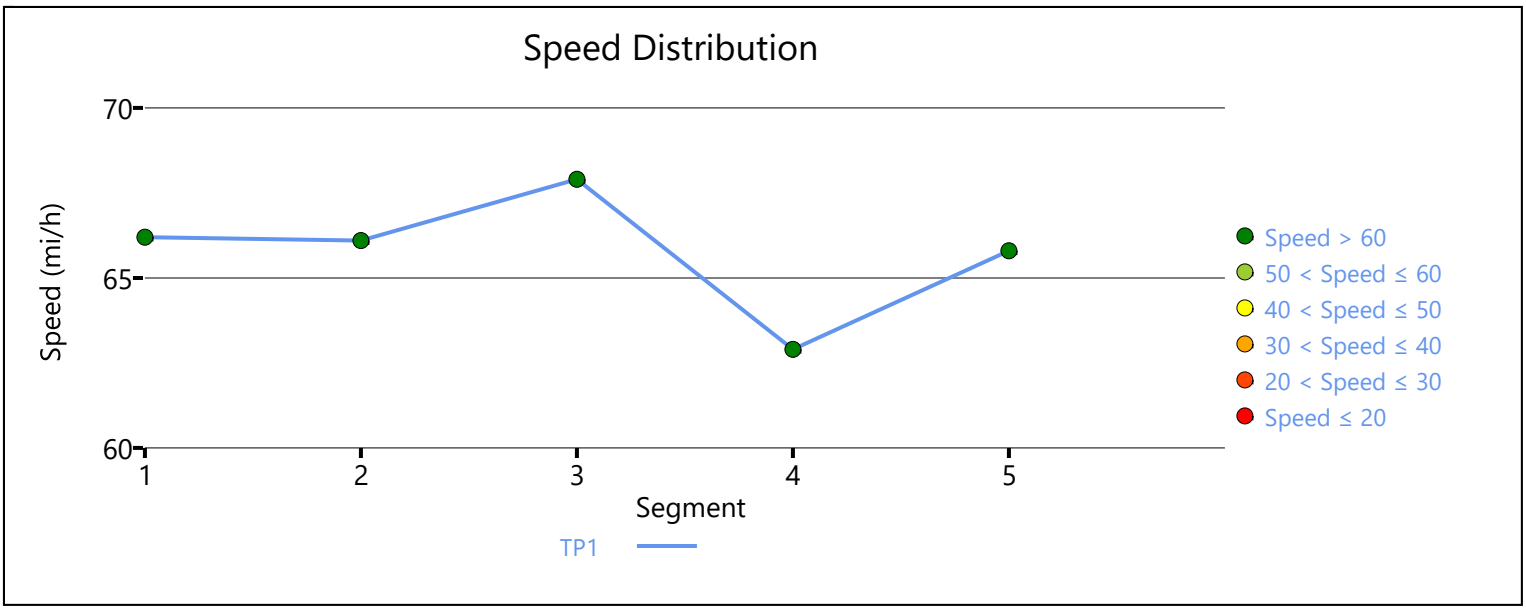
Segment 5: Basic

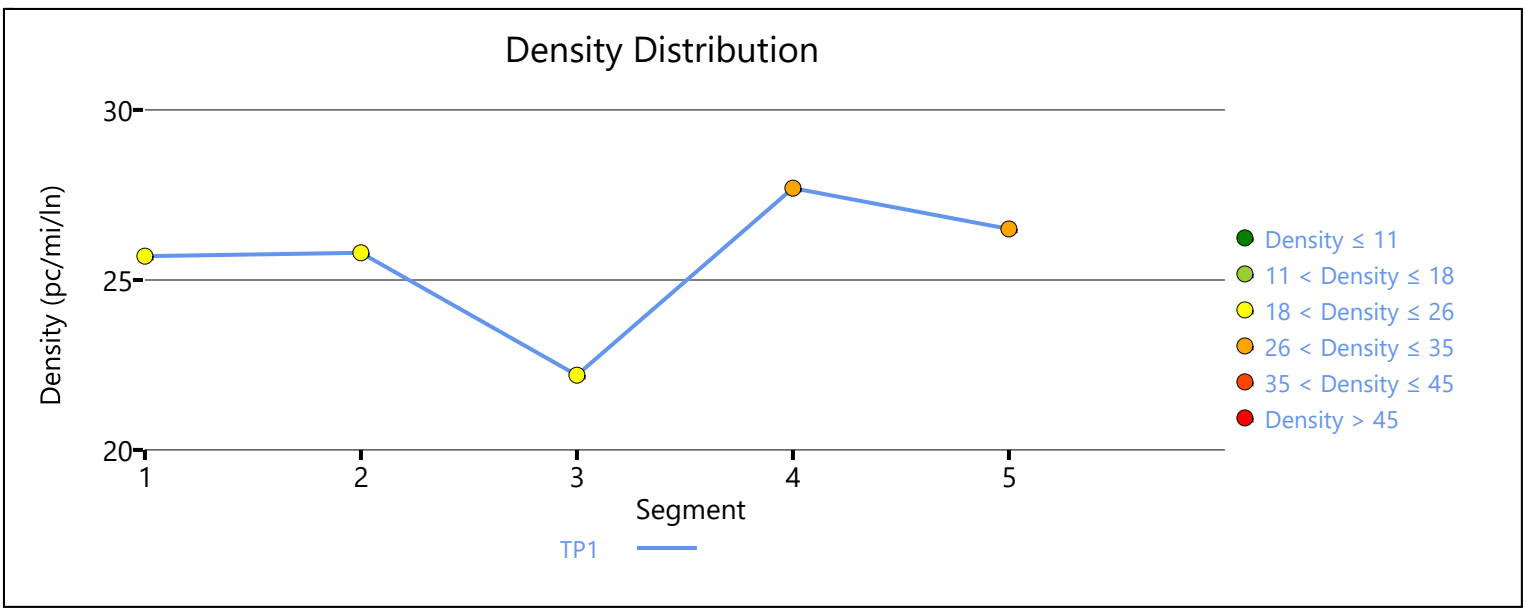
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	6971	9548	0.73	65.8	26.5	D

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	65.8	25.5	25.2	1.6	C

Facility Overall Results			
Space Mean Speed, mi/h	65.8	Density, veh/mi/ln	25.2
Average Travel Time, min	1.6	Density, pc/mi/ln	25.5







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APPENDIX 6.8:

E+P (PROJECT BUILDOUT) CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-71 SB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	17
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Southbound, N of Central	4275	3
2	Diverge	Diverge	Central SB Off-Ramp	1500	3
3	Basic	Basic	Cetnral SB Off-Ramp to Loop On-Ramp	1125	3
4	Merge	Merge	Central SB Loop On-Ramp	1500	3
5	Basic	Basic	Central SB Loop On-Ramp to On-Ramp	1025	3
6	Merge	Merge	Central SB On-Ramp	1500	3
7	Basic	Basic	Southbound, Central to Pine	5500	2
8	Diverge	Diverge	Pine SB Off-Ramp	1500	2
9	Basic	Basic	Pine SB Off-Ramp to On-Ramp	2315	2
10	Merge	Merge	Pine SB On-Ramp	1500	2
11	Basic	Basic	Southbound, Pine to Euclid	4500	2
12	Diverge	Diverge	Euclid SB Off-Ramp	1500	2
13	Basic	Basic	Euclid SB Off-Ramp to Loop On-Ramp	1460	2
14	Merge	Merge	Euclid SB Loop On-Ramp	1500	2
15	Basic	Basic	Euclid SB Loop On-Ramp to On-Ramp	1200	2
16	Merge	Merge	Euclid SB On-Ramp	1500	2
17	Basic	Basic	Southbound, S of Euclid	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.914	1994	7131	0.28	67.7	9.8	A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	

1	0.92	0.92	0.914	0.909	1994	912	7200	2100	0.28	0.43	61.9	59.4	10.7	16.7	B
Segment 3: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.931		1067		7116		0.15		67.2		5.3		A
Segment 4: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.931	0.840	1274	207	7200	1900	0.18	0.11	64.0	61.3	6.6	9.5	A
Segment 5: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.914		1277		7116		0.18		67.2		6.3		A
Segment 6: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.914	0.980	1379	102	7200	2100	0.19	0.05	64.5	61.6	7.1	10.0	A
Segment 7: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.922		1375		4726		0.29		66.3		10.4		A
Segment 8: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.922	0.943	1375	206	4800	2100	0.29	0.10	61.1	61.1	11.3	14.5	B
Segment 9: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.914		1174		4718		0.25		65.9		8.9		A
Segment 10: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.914	0.943	1214	40	4800	2100	0.25	0.02	61.7	61.7	9.8	12.5	B
Segment 11: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.914		1215		4726		0.26		66.3		9.2		A
Segment 12: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**

	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.914	0.917	1215	750	4800	2100	0.25	0.36	59.8	59.8	10.2	13.4	B

Segment 13: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.931	454	4744	0.10	67.2	3.4	A

Segment 14: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.931	0.885	991	537	4800	1900	0.21	0.28	61.4	61.4	8.1	9.8	A

Segment 15: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.899	999	4744	0.21	67.2	7.4	A

Segment 16: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.899	0.926	1730	731	4800	2100	0.36	0.35	61.5	61.5	14.1	15.9	B

Segment 17: Basic

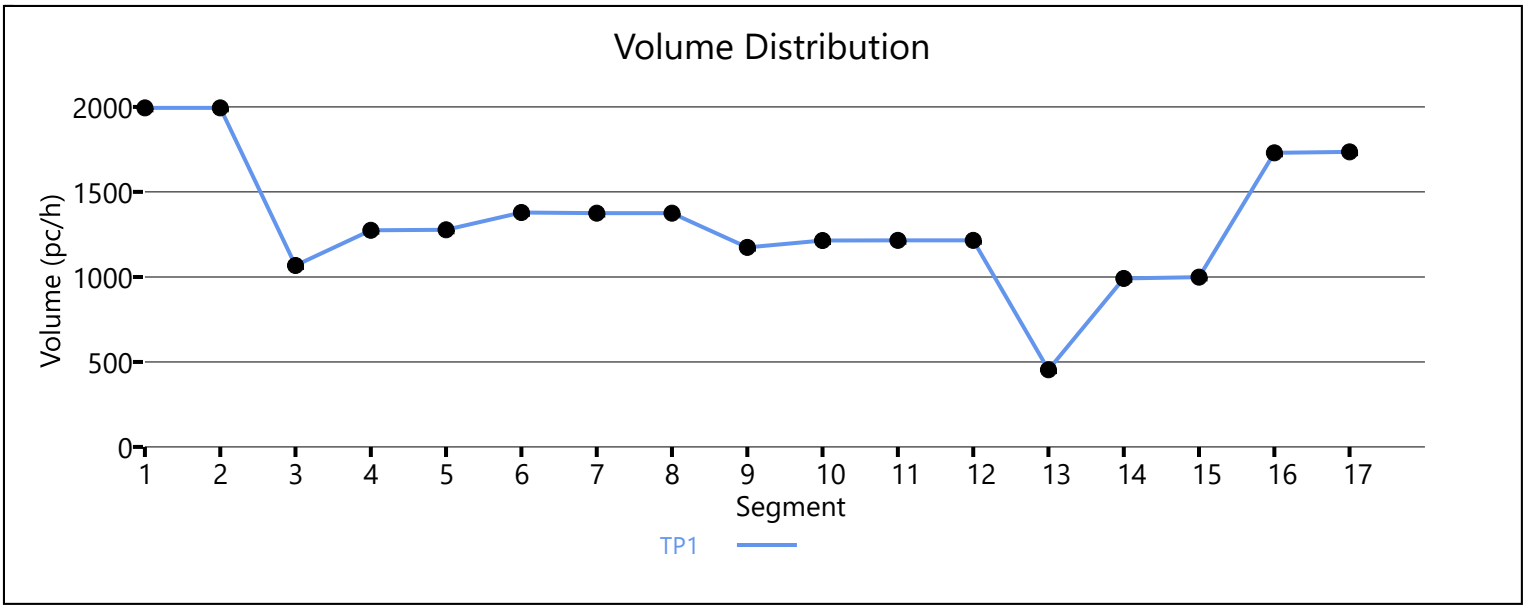
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.907	1736	4554	0.38	57.7	15.0	B

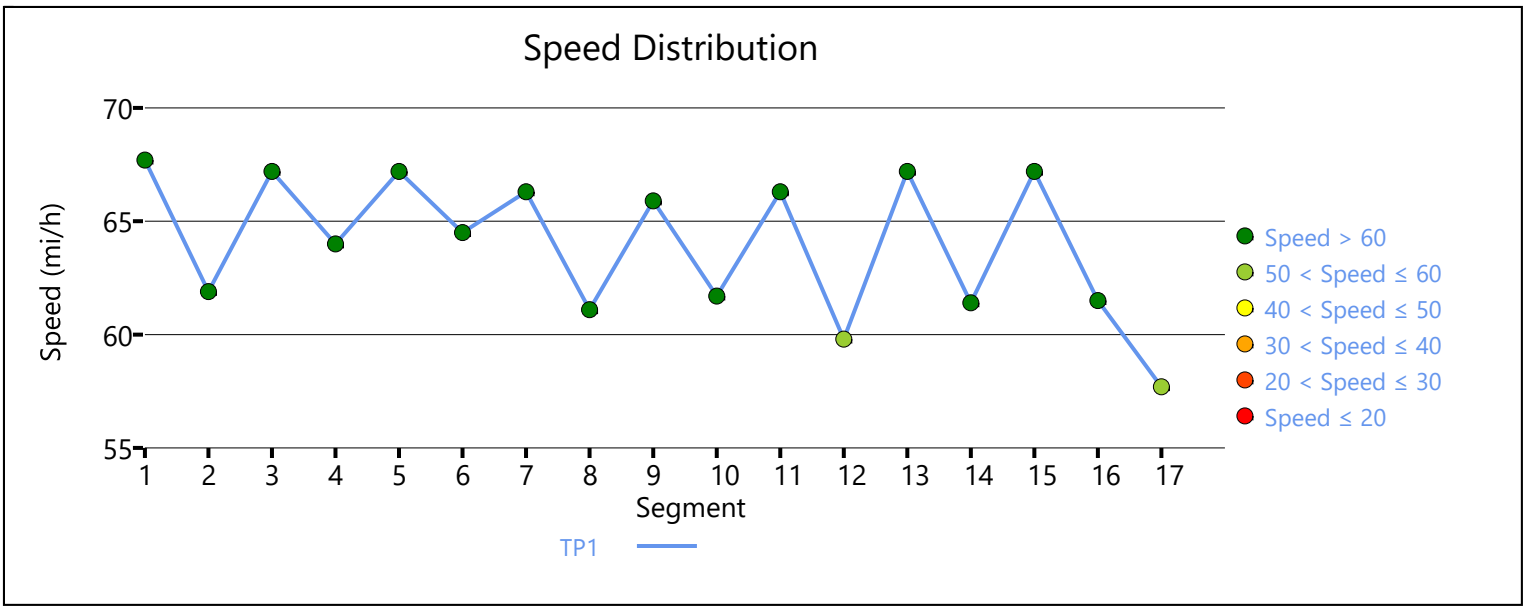
Facility Time Period Results

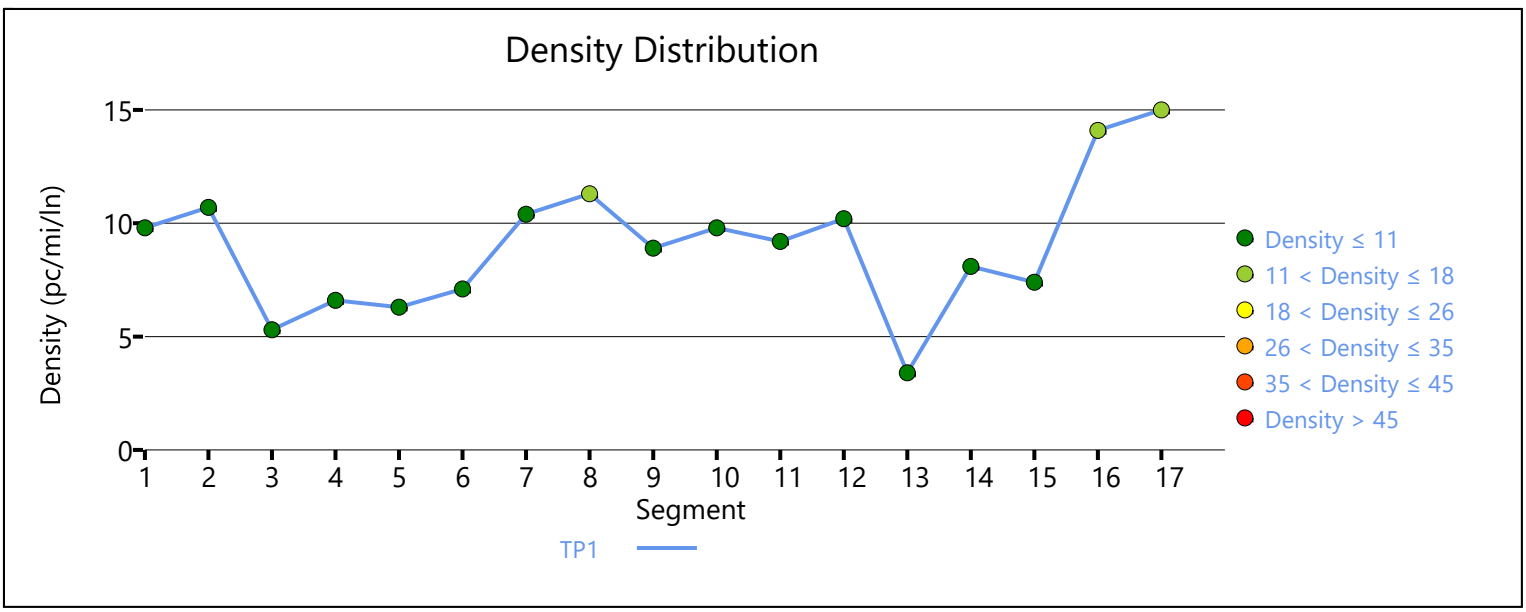
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	63.6	9.7	8.9	6.9	A

Facility Overall Results

Space Mean Speed, mi/h	63.6	Density, veh/mi/ln	8.9
Average Travel Time, min	6.9	Density, pc/mi/ln	9.7







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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-71 NB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	15
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Northbound, S of Euclid	5280	3
2	Diverge	Basic	Euclid NB Off-Ramp	1500	3
3	Basic	Basic	Euclid NB Off-Ramp to On-Ramp	1500	2
4	Merge	Merge	Euclid NB On-Ramp	1500	2
5	Basic	Basic	Northbound, Euclid to Pine	4500	2
6	Diverge	Diverge	Pine NB Off-Ramp	1500	2
7	Basic	Basic	Pine NB Off-Ramp to On-Ramp	2225	2
8	Merge	Basic	Pine NB On-Ramp	1500	2
9	Basic	Basic	Northbound, Pine to Central	5500	3
10	Diverge	Diverge	Central NB Off-Ramp	1500	3
11	Basic	Basic	Central NB Off-Ramp to Loop On-Ramp	1050	3
12	Merge	Merge	Central NB Loop On-Ramp	1500	3
13	Basic	Basic	Central NB Loop On-Ramp to On-Ramp	1040	3
14	Merge	Merge	Central NB On-Ramp	1500	3
15	Basic	Basic	Northbound, N of Central	4275	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.763	1925	6831	0.28	57.7	11.1	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.763	0.901	1925	758	7200	4200	0.27	0.18	70.0	-	9.2	-	A

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.676		1163		4754		0.24		67.7		8.6		A
Segment 4: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.676	0.943	2290	1127	4800	1900	0.48	0.59	60.9	60.9	18.8	18.6	B
Segment 5: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.806		2294		4736		0.48		66.8		17.2		B
Segment 6: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.806	0.952	2294	73	4800	2100	0.48	0.03	61.5	61.5	18.7	22.7	C
Segment 7: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.806		2208		4726		0.47		66.3		16.7		B
Segment 8: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.806	0.980	2696	488	4800	2100	0.46	0.23	70.0	-	15.8	-	B
Segment 9: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.833		2710		7089		0.38		66.3		13.6		B
Segment 10: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.833	0.943	2710	496	7200	2100	0.38	0.24	64.1	60.4	14.1	20.4	C
Segment 11: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.813		2202		7116		0.31		67.2		10.9		A
Segment 12: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.813	0.971	3055	853	7200	1900	0.42	0.45	62.9	60.8	16.2	18.7	B

Segment 13: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.855	3063	7116	0.43	67.2	15.2	B

Segment 14: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.855	0.935	4141	1078	7200	2100	0.58	0.51	62.2	60.2	22.2	24.7	C

Segment 15: Basic

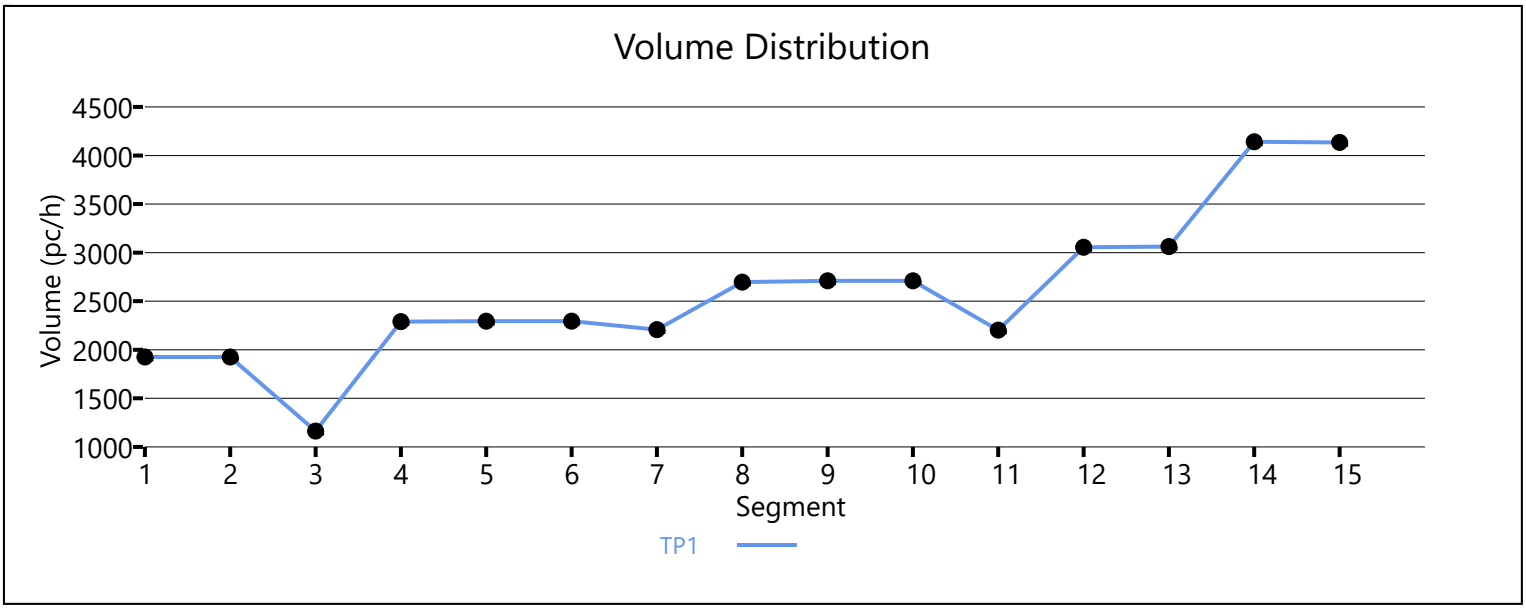
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.877	4135	7131	0.58	67.6	20.4	C

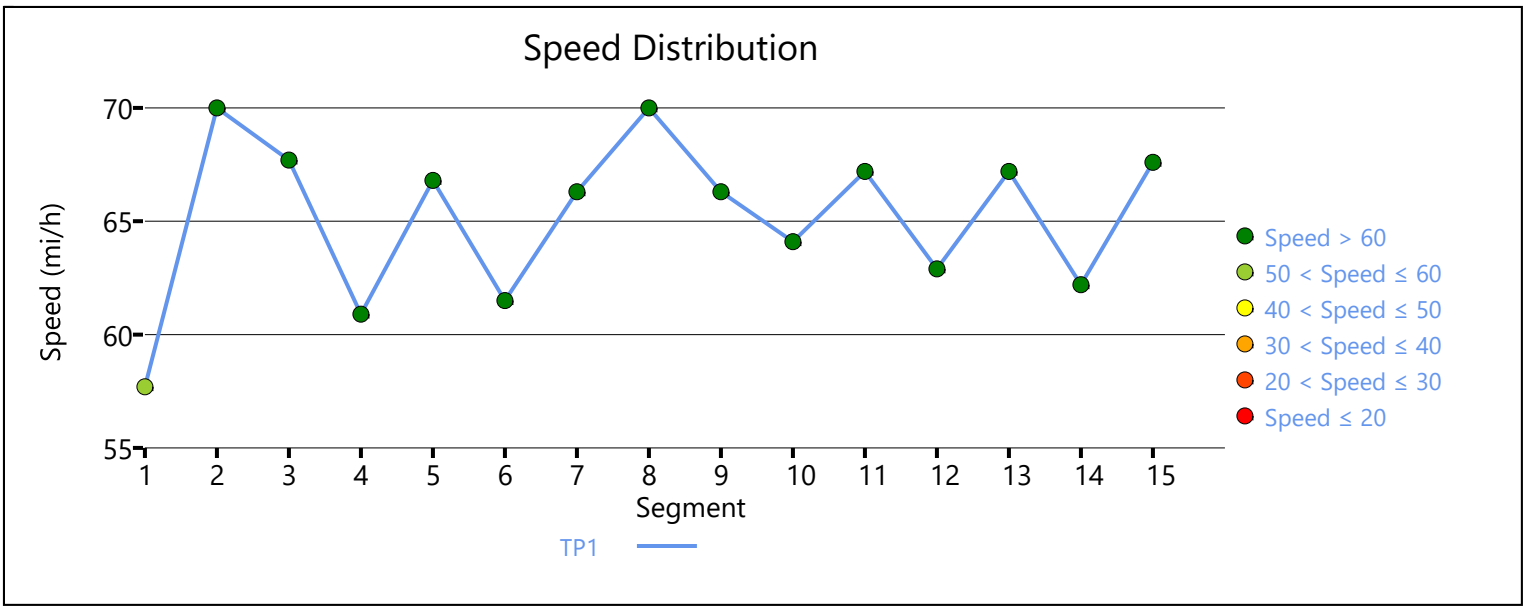
Facility Time Period Results

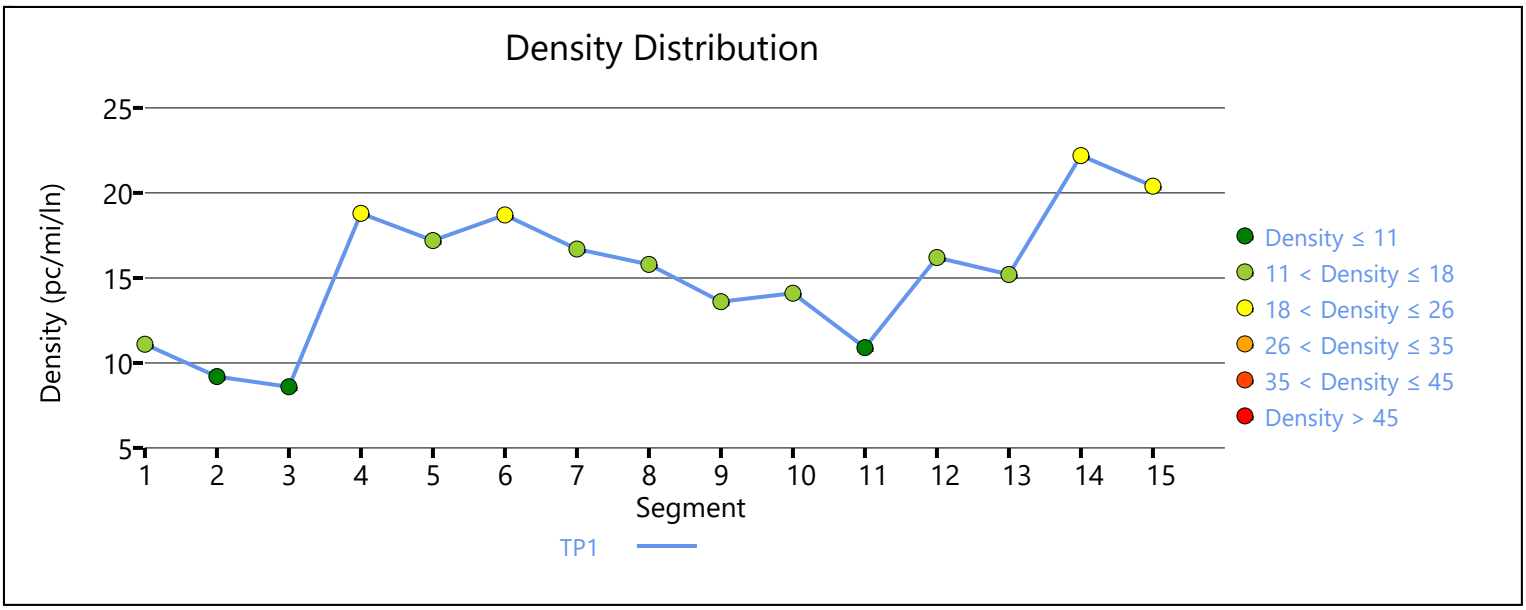
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.0	15.1	12.4	6.3	B

Facility Overall Results

Space Mean Speed, mi/h	65.0	Density, veh/mi/ln	12.4
Average Travel Time, min	6.3	Density, pc/mi/ln	15.1







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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-60 WB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Euclid	2500	4
2	Diverge	Diverge	Off-Ramp at Euclid	1500	4
3	Basic	Basic	Between	2200	4
4	Merge	Merge	On-Ramp at Euclid	1500	4
5	Basic	Basic	West of Euclid	1500	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	8352	9548	0.87	60.2	34.7	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.952	0.813	8352	1048	9600	2100	0.87	0.50	65.0	59.0	32.1	36.5	E

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	7311	9548	0.77	64.7	28.3	D

Segment 4: Merge

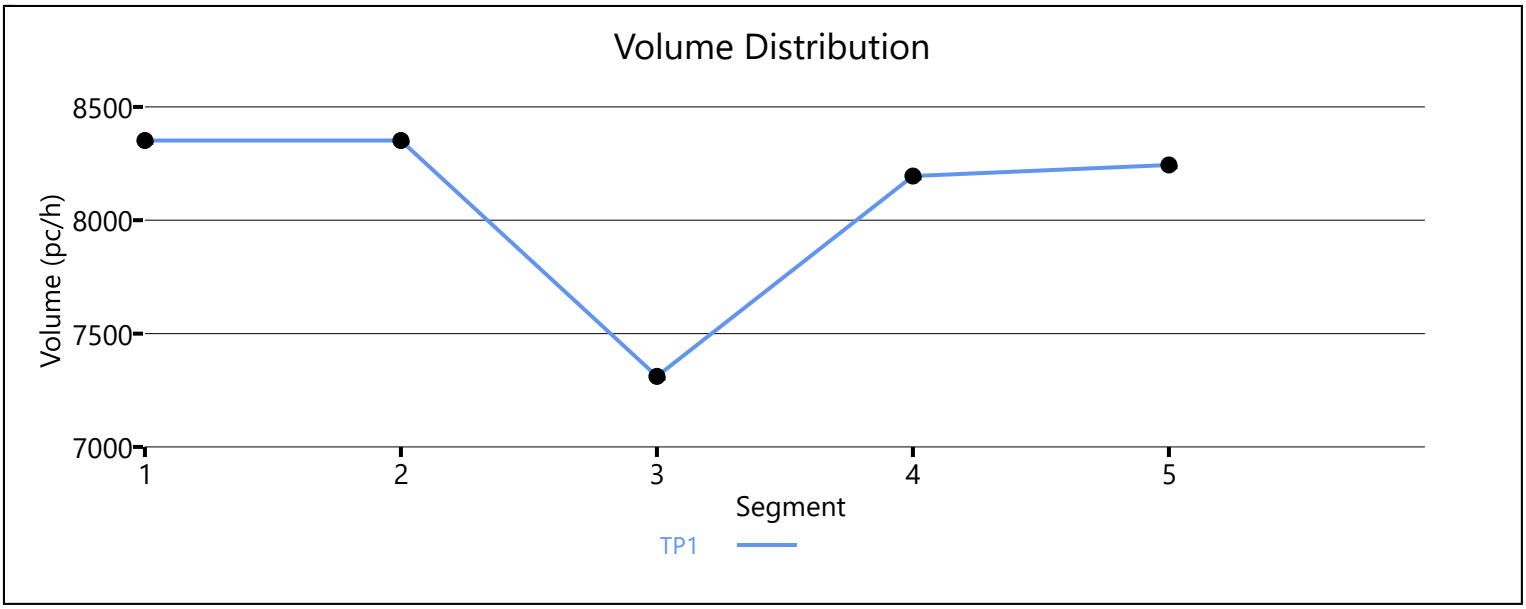
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.847	8195	884	9600	2100	0.85	0.42	61.3	58.6	33.4	28.6	D

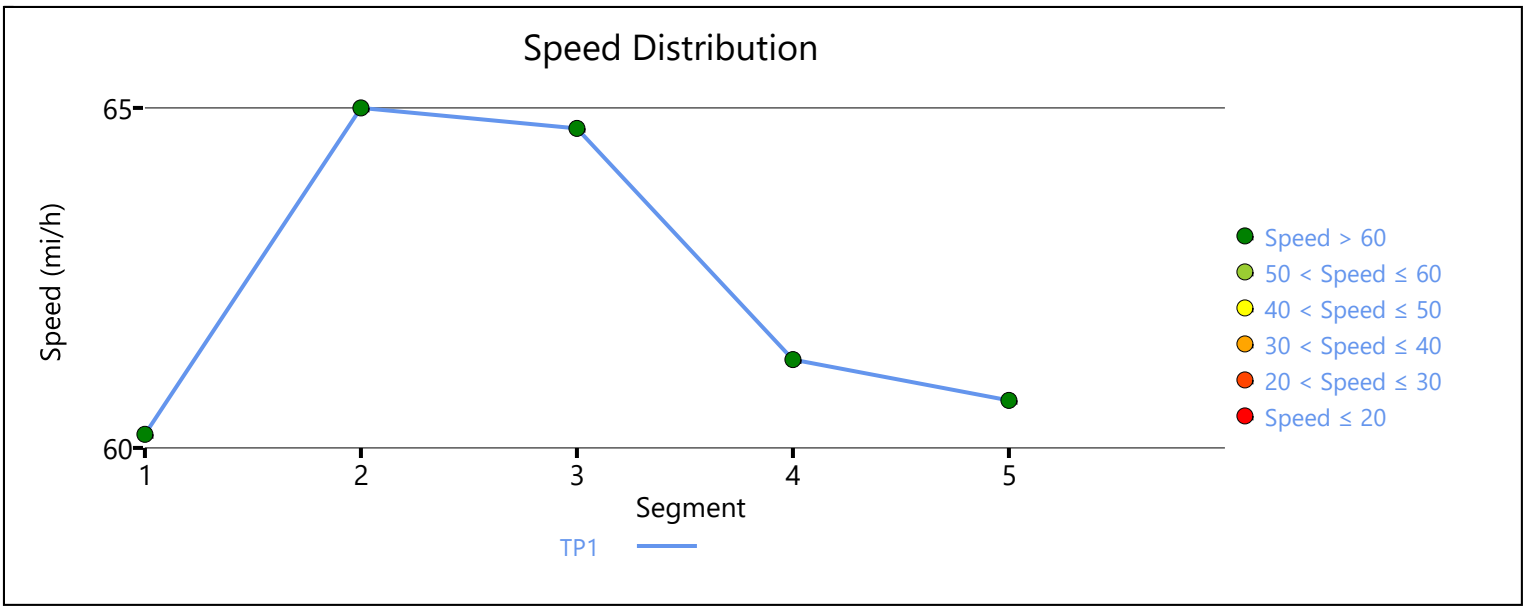
Segment 5: Basic

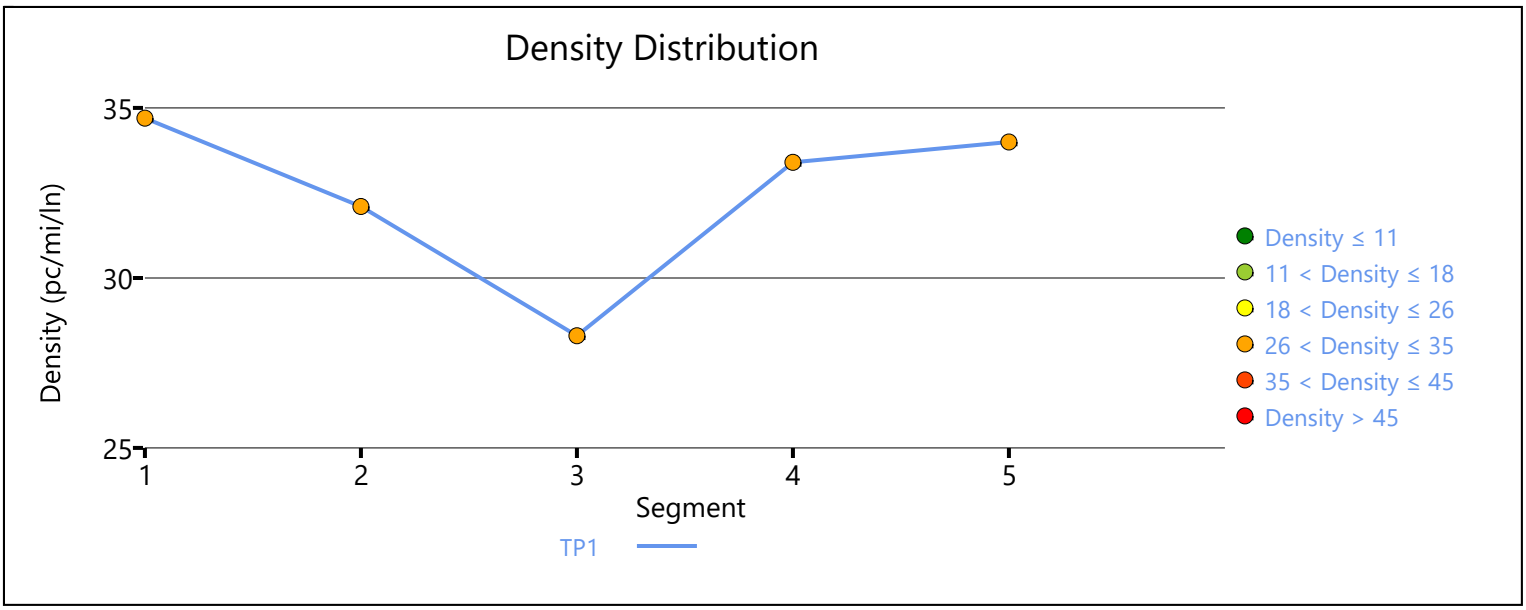
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	8244	9548	0.86	60.7	34.0	D

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	62.2	32.4	31.1	1.7	D

Facility Overall Results			
Space Mean Speed, mi/h	62.2	Density, veh/mi/ln	31.1
Average Travel Time, min	1.7	Density, pc/mi/ln	32.4







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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-60 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Euclid	1370	4
2	Diverge	Diverge	Off-Ramp at Euclid	1500	4
3	Basic	Basic	Between	2100	4
4	Merge	Merge	On-Ramp at Euclid	1500	4
5	Basic	Basic	East of Euclid	3000	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	7823	9548	0.82	62.7	31.2	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.855	7823	749	9600	2100	0.81	0.36	65.8	59.8	29.7	32.3	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	7026	9548	0.74	65.6	26.8	D

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.840	8112	1086	9600	2100	0.84	0.52	61.2	58.2	33.1	29.0	D

Segment 5: Basic

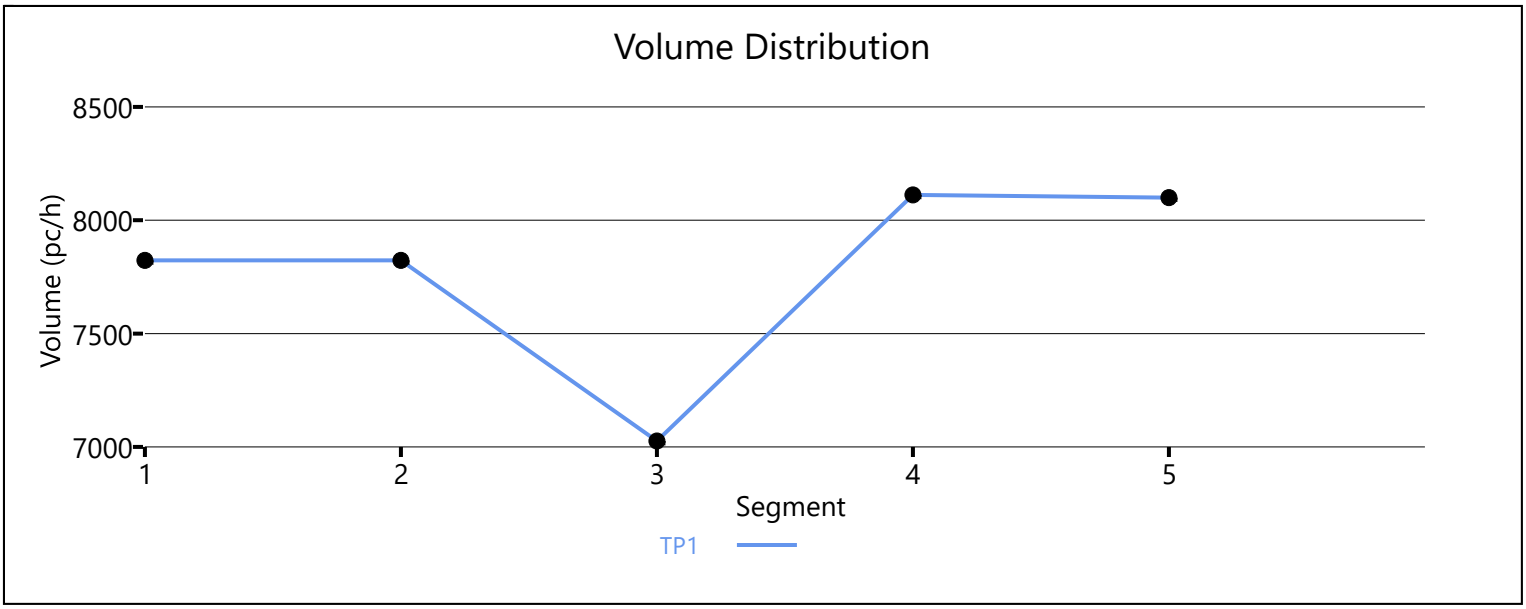
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	8100	9548	0.85	61.4	33.0	D

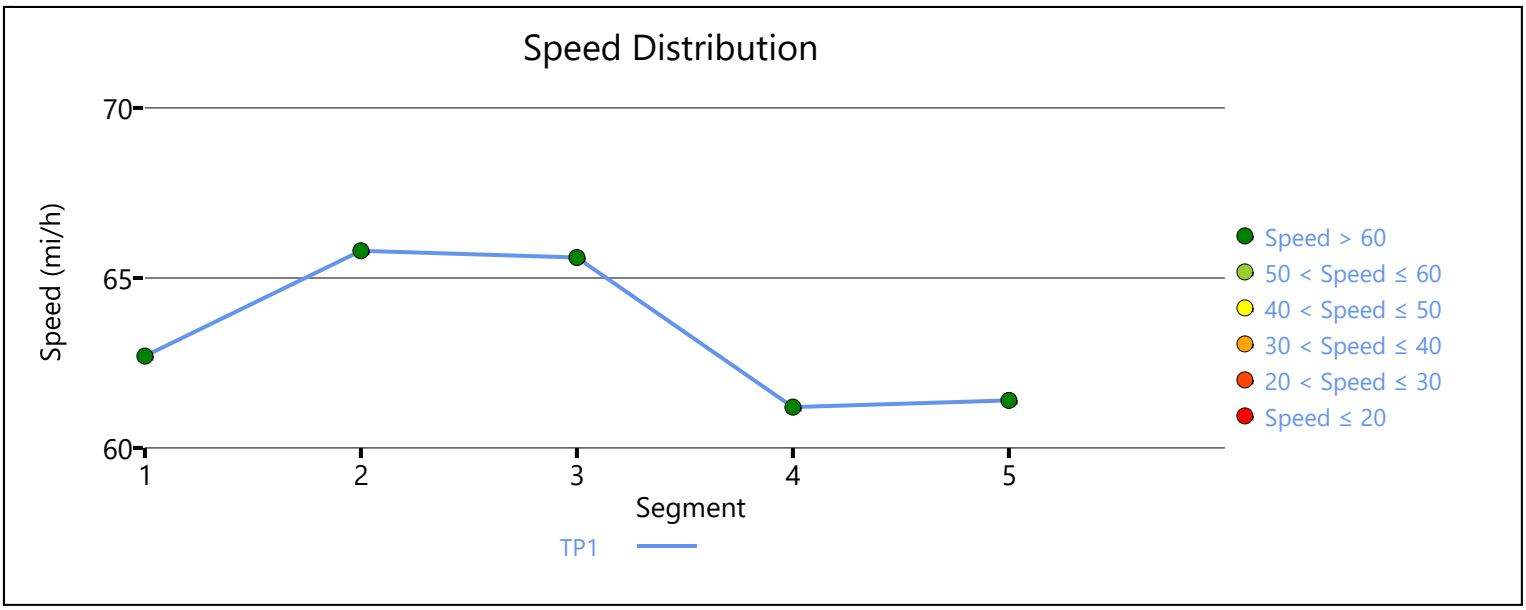
Facility Time Period Results

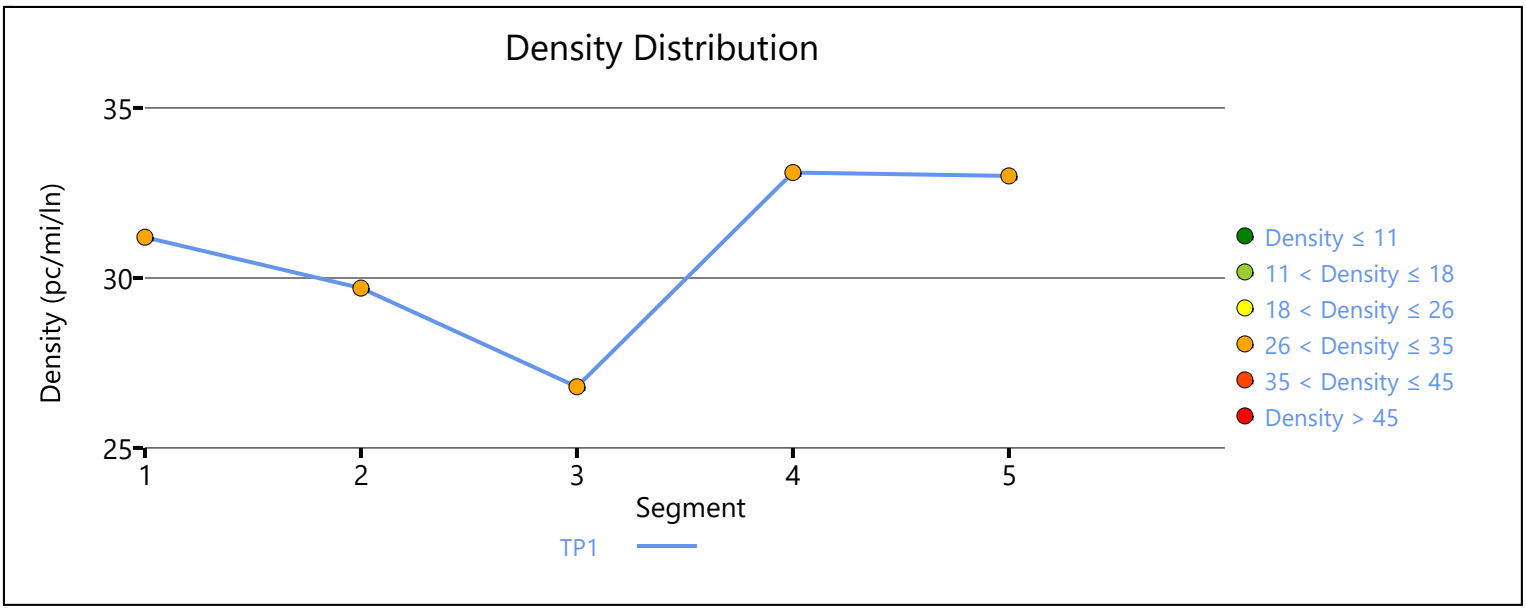
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	63.0	30.9	30.5	1.7	D

Facility Overall Results

Space Mean Speed, mi/h	63.0	Density, veh/mi/ln	30.5
Average Travel Time, min	1.7	Density, pc/mi/ln	30.9







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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-71 SB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	17
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Southbound, N of Central	4275	3
2	Diverge	Diverge	Central SB Off-Ramp	1500	3
3	Basic	Basic	Cetnral SB Off-Ramp to Loop On-Ramp	1125	3
4	Merge	Merge	Central SB Loop On-Ramp	1500	3
5	Basic	Basic	Central SB Loop On-Ramp to On-Ramp	1025	3
6	Merge	Merge	Central SB On-Ramp	1500	3
7	Basic	Basic	Southbound, Central to Pine	5500	2
8	Diverge	Diverge	Pine SB Off-Ramp	1500	2
9	Basic	Basic	Pine SB Off-Ramp to On-Ramp	2315	2
10	Merge	Merge	Pine SB On-Ramp	1500	2
11	Basic	Basic	Southbound, Pine to Euclid	4500	2
12	Diverge	Diverge	Euclid SB Off-Ramp	1500	2
13	Basic	Basic	Euclid SB Off-Ramp to Loop On-Ramp	1460	2
14	Merge	Merge	Euclid SB Loop On-Ramp	1500	2
15	Basic	Basic	Euclid SB Loop On-Ramp to On-Ramp	1200	2
16	Merge	Merge	Euclid SB On-Ramp	1500	2
17	Basic	Basic	Southbound, S of Euclid	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.939	3768	7131	0.53	67.7	18.6	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	

1	0.92	0.92	0.939	0.952	3768	1842	7200	2100	0.52	0.88	60.3	57.0	20.8	28.1	D
Segment 3: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.939		1901		7116		0.27		67.2		9.4		A
Segment 4: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.939	0.952	2192	291	7200	1900	0.30	0.15	63.7	61.1	11.5	13.9	B
Segment 5: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.939		2196		7116		0.31		67.2		10.9		A
Segment 6: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.939	0.901	2270	74	7200	2100	0.32	0.04	64.1	61.5	11.8	14.0	B
Segment 7: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.939		2267		4726		0.48		66.3		17.1		B
Segment 8: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.939	0.962	2267	1129	4800	2100	0.47	0.54	58.8	58.8	19.3	22.2	C
Segment 9: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.922		1131		4718		0.24		65.9		8.6		A
Segment 10: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.922	0.926	1191	60	4800	2100	0.25	0.03	61.7	61.7	9.7	12.3	B
Segment 11: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.922		1191		4726		0.25		66.3		9.0		A
Segment 12: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**

	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.922	0.952	1191	837	4800	2100	0.25	0.40	59.6	59.6	10.0	13.2	B

Segment 13: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.892	338	4744	0.07	67.2	2.5	A

Segment 14: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.892	0.935	1132	794	4800	1900	0.24	0.42	61.4	61.4	9.2	10.8	B

Segment 15: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.914	1142	4744	0.24	67.2	8.5	A

Segment 16: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.914	0.971	1870	728	4800	2100	0.39	0.35	61.4	61.4	15.2	17.0	B

Segment 17: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.931	1880	4554	0.41	57.7	16.3	B

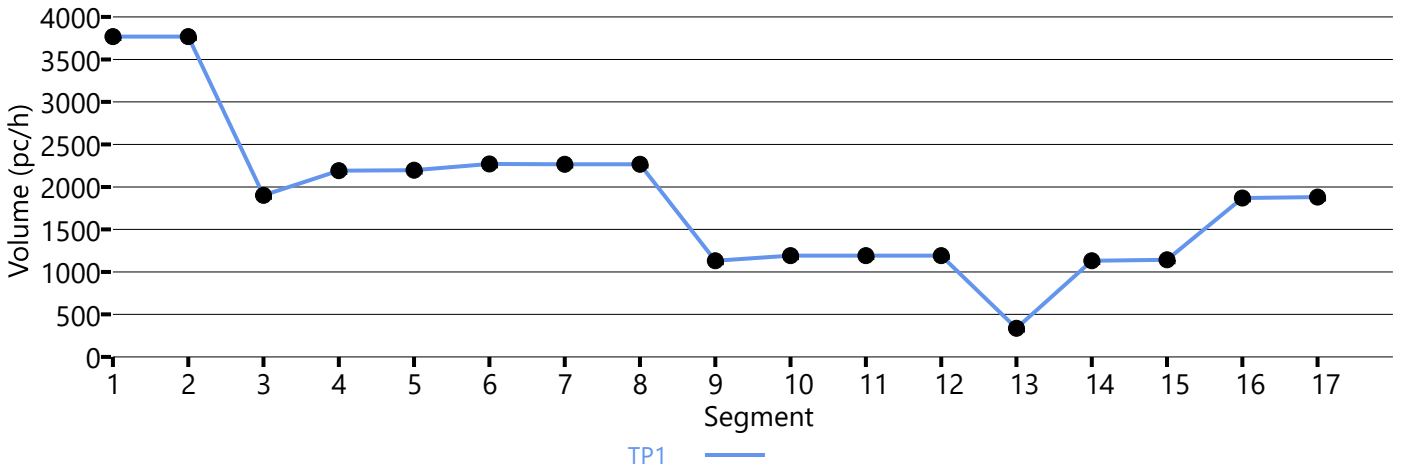
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	63.8	13.6	12.7	6.9	B

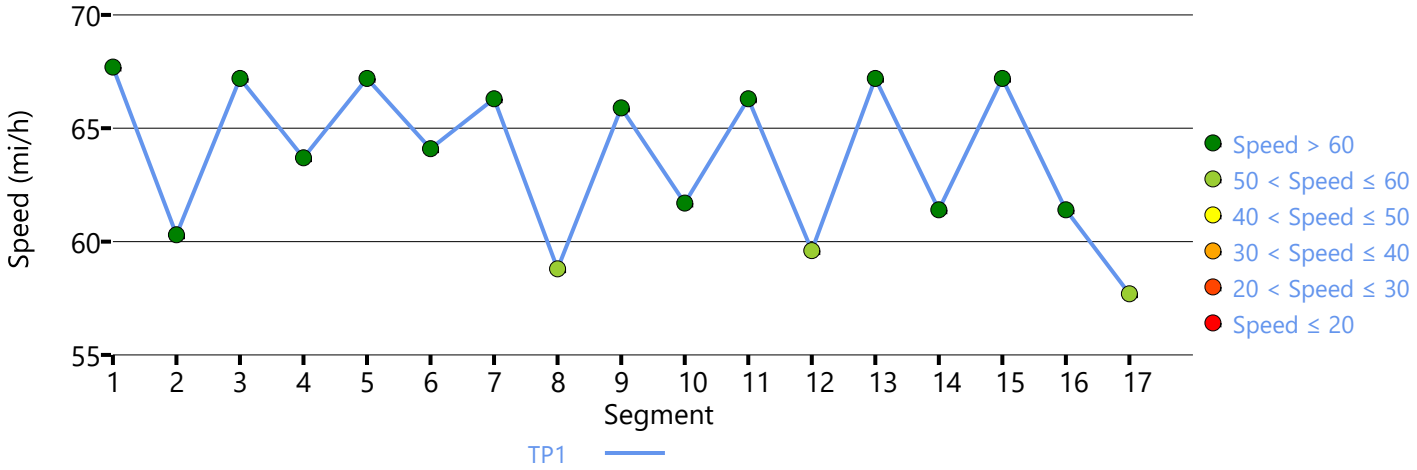
Facility Overall Results

Space Mean Speed, mi/h	63.8	Density, veh/mi/ln	12.7
Average Travel Time, min	6.9	Density, pc/mi/ln	13.6

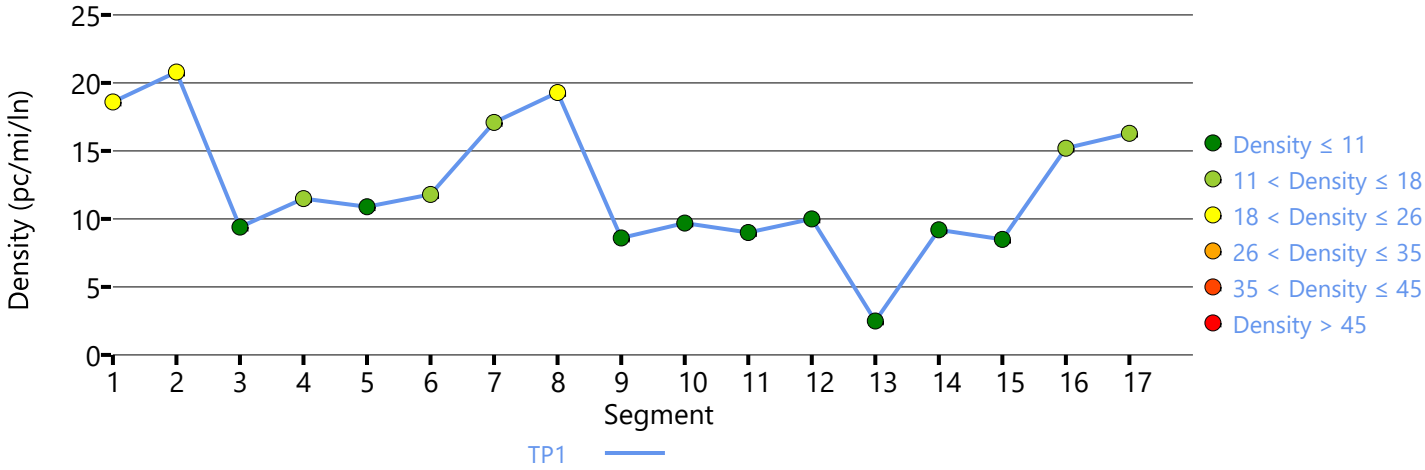
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-71 NB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	15
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Northbound, S of Euclid	5280	3
2	Diverge	Basic	Euclid NB Off-Ramp	1500	3
3	Basic	Basic	Euclid NB Off-Ramp to On-Ramp	1500	2
4	Merge	Merge	Euclid NB On-Ramp	1500	2
5	Basic	Basic	Northbound, Euclid to Pine	4500	2
6	Diverge	Diverge	Pine NB Off-Ramp	1500	2
7	Basic	Basic	Pine NB Off-Ramp to On-Ramp	2225	2
8	Merge	Basic	Pine NB On-Ramp	1500	2
9	Basic	Basic	Northbound, Pine to Central	5500	3
10	Diverge	Diverge	Central NB Off-Ramp	1500	3
11	Basic	Basic	Central NB Off-Ramp to Loop On-Ramp	1050	3
12	Merge	Merge	Central NB Loop On-Ramp	1500	3
13	Basic	Basic	Central NB Loop On-Ramp to On-Ramp	1040	3
14	Merge	Merge	Central NB On-Ramp	1500	3
15	Basic	Basic	Northbound, N of Central	4275	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.877	3301	6831	0.48	57.7	19.1	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.877	0.943	3301	1137	7200	4200	0.46	0.27	70.0	-	15.7	-	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.840		2170		4754		0.46		67.7		16.0		B
Segment 4: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.840	0.962	2713	543	4800	1900	0.57	0.29	60.3	60.3	22.5	22.2	C
Segment 5: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.862		2721		4736		0.57		66.8		20.4		C
Segment 6: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.862	0.952	2721	127	4800	2100	0.57	0.06	61.3	61.3	22.2	26.4	C
Segment 7: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.862		2581		4726		0.55		66.3		19.5		C
Segment 8: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.862	0.971	2941	360	4800	2100	0.54	0.17	69.9	-	18.5	-	C
Segment 9: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.870		2960		7089		0.42		66.3		14.9		B
Segment 10: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.870	0.909	2960	538	7200	2100	0.41	0.26	64.1	60.3	15.4	21.7	C
Segment 11: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.862		2420		7116		0.34		67.2		12.0		B
Segment 12: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.862	0.971	2889	469	7200	1900	0.40	0.25	63.3	61.0	15.2	16.9	B

Segment 13: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.885	2872	7116	0.40	67.2	14.2	B

Segment 14: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.885	0.943	3650	778	7200	2100	0.51	0.37	62.9	60.9	19.3	21.6	C

Segment 15: Basic

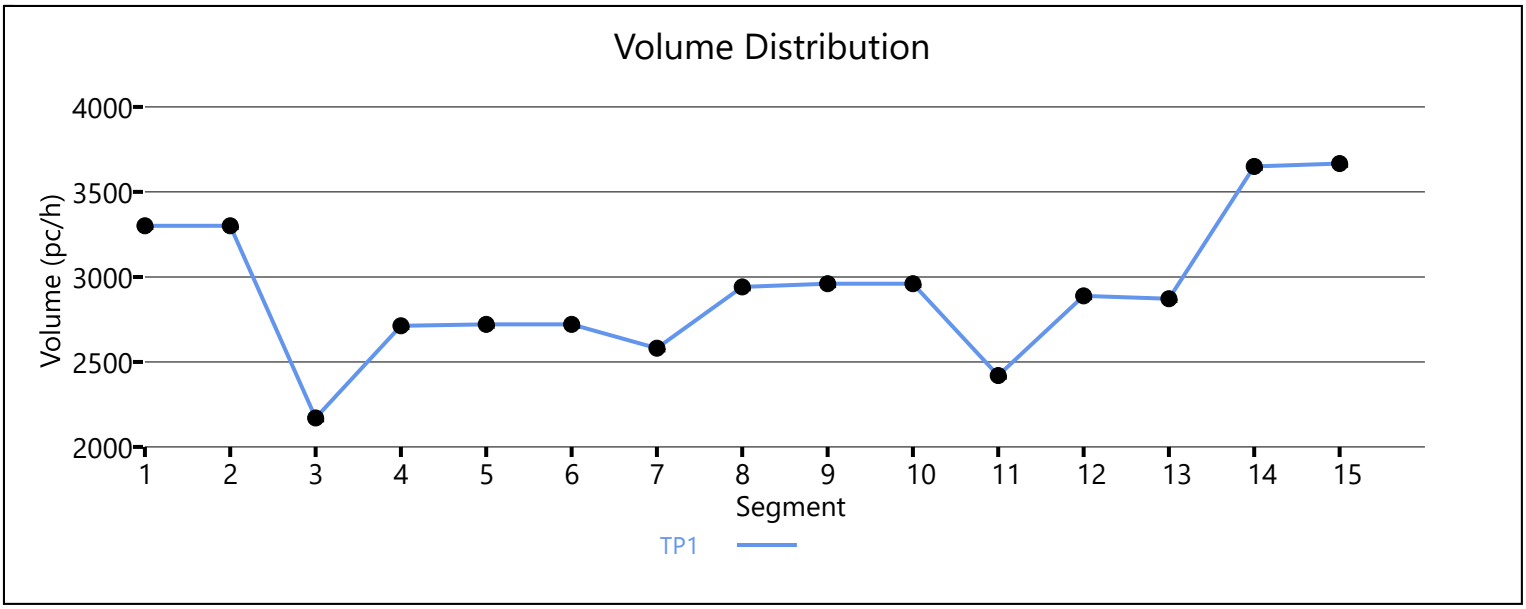
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.893	3667	7131	0.51	67.7	18.1	C

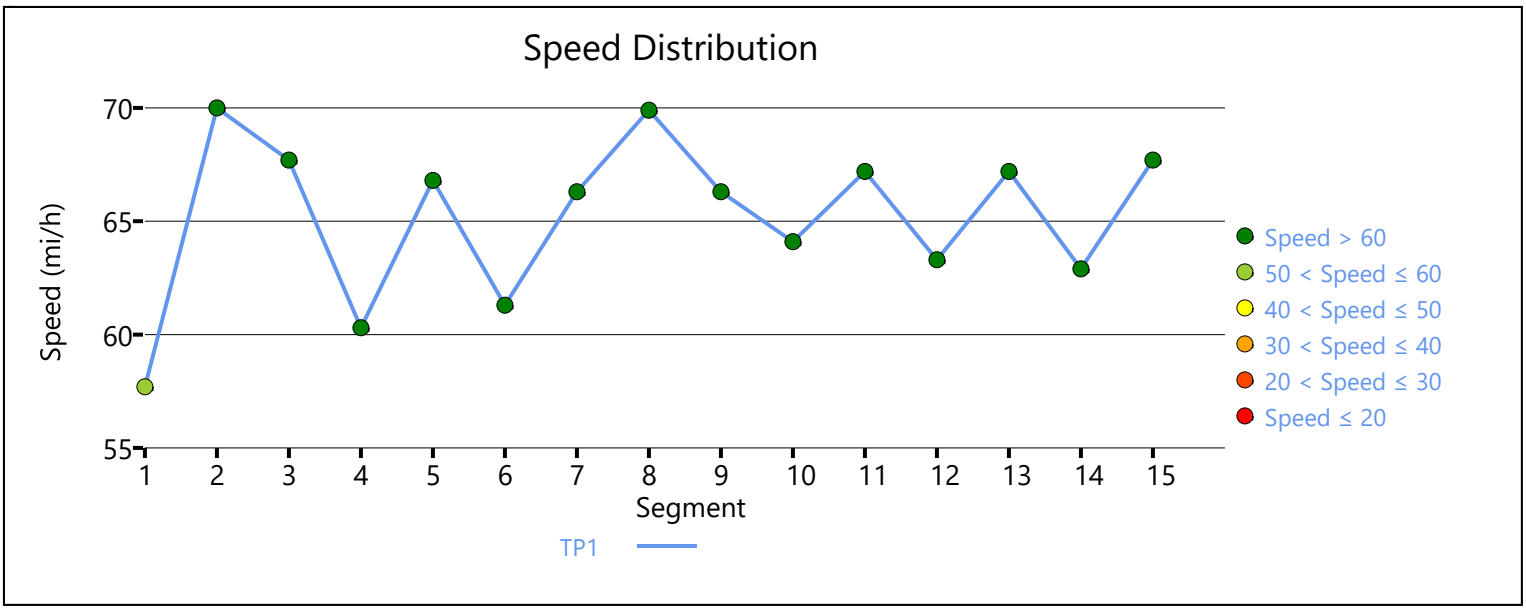
Facility Time Period Results

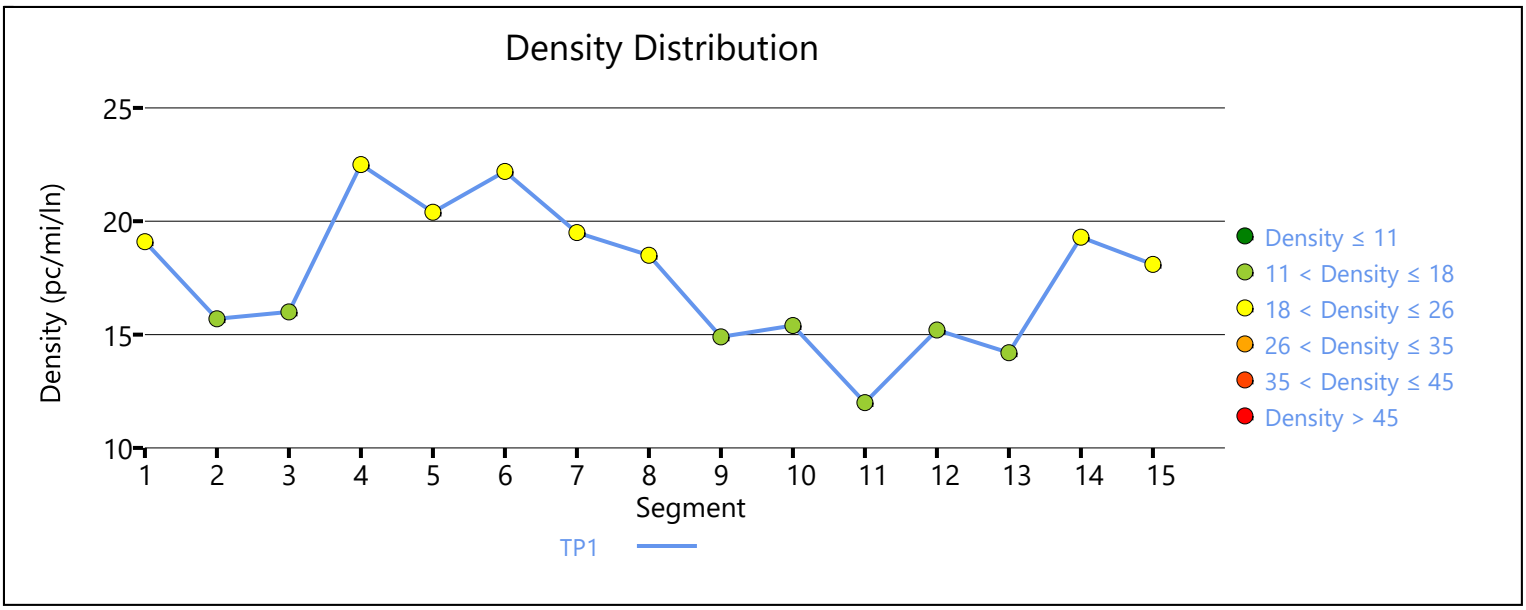
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	64.5	17.6	15.3	6.3	B

Facility Overall Results

Space Mean Speed, mi/h	64.5	Density, veh/mi/ln	15.3
Average Travel Time, min	6.3	Density, pc/mi/ln	17.6







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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-60 WB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Euclid	2500	4
2	Diverge	Diverge	Off-Ramp at Euclid	1500	4
3	Basic	Basic	Between	2200	4
4	Merge	Merge	On-Ramp at Euclid	1500	4
5	Basic	Basic	West of Euclid	1500	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	8167	9548	0.86	61.1	33.4	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.870	8167	1033	9600	2100	0.85	0.49	65.1	59.1	31.4	35.7	E

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	7165	9548	0.75	65.2	27.5	D

Segment 4: Merge

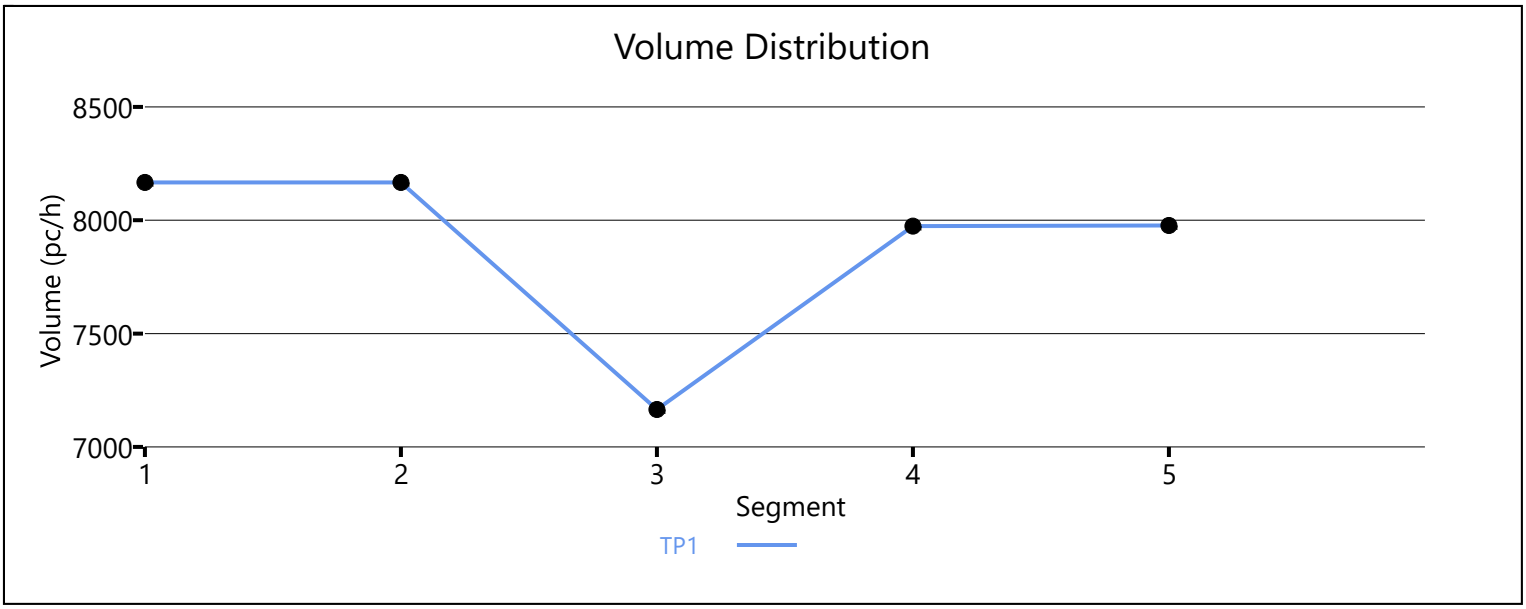
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.885	7974	809	9600	2100	0.83	0.39	61.7	59.2	32.3	27.6	C

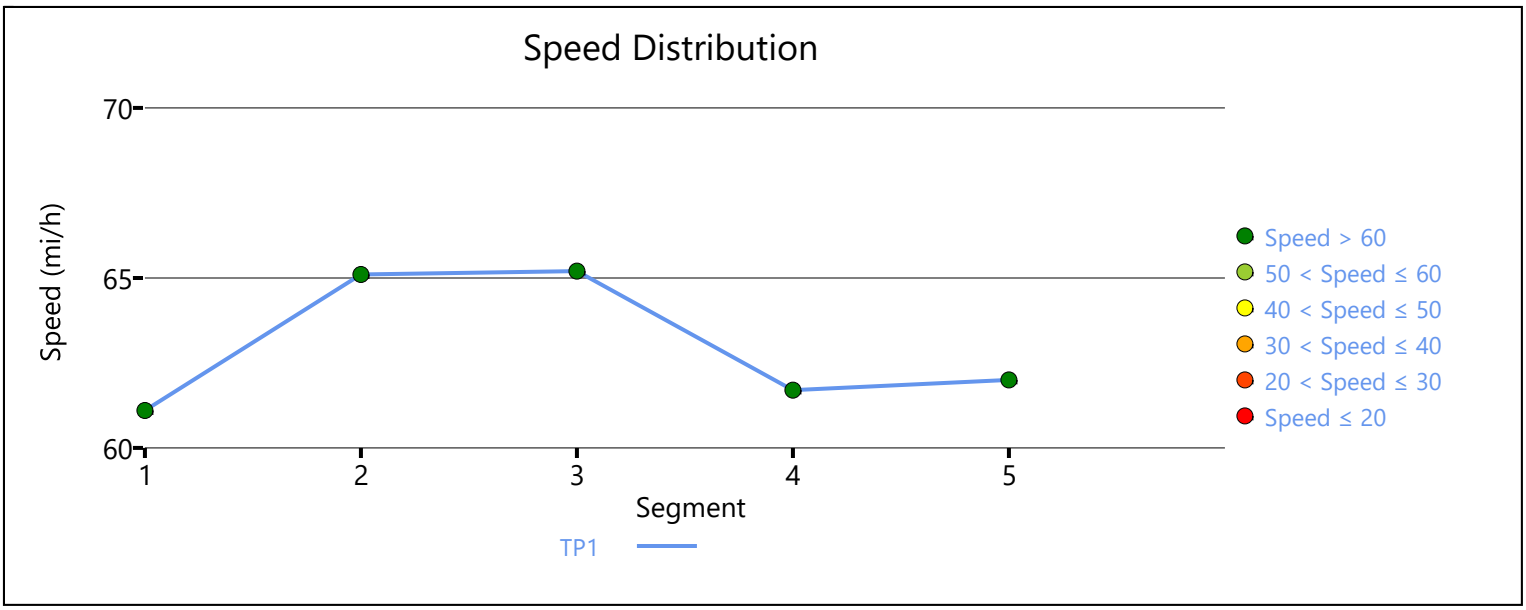
Segment 5: Basic

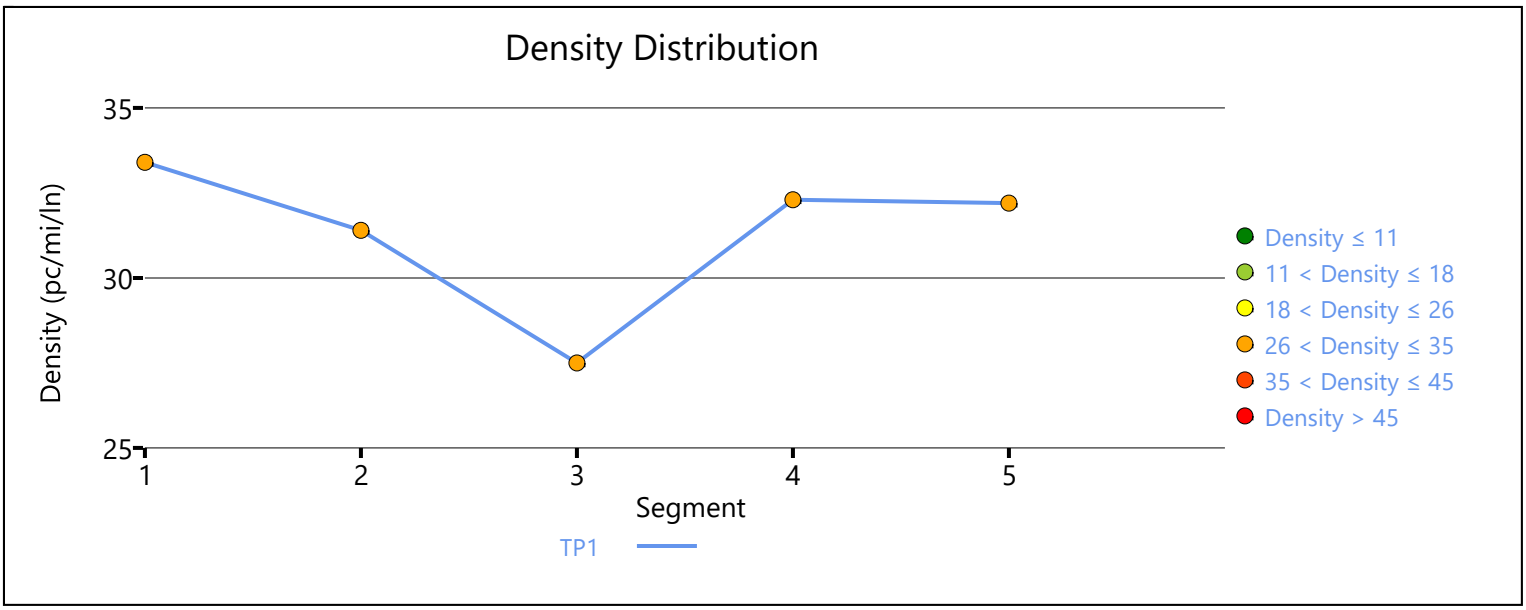
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	7977	9548	0.84	62.0	32.2	D

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	62.9	31.3	30.2	1.7	D

Facility Overall Results			
Space Mean Speed, mi/h	62.9	Density, veh/mi/ln	30.2
Average Travel Time, min	1.7	Density, pc/mi/ln	31.3







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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-60 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Euclid	1370	4
2	Diverge	Diverge	Off-Ramp at Euclid	1500	4
3	Basic	Basic	Between	2100	4
4	Merge	Merge	On-Ramp at Euclid	1500	4
5	Basic	Basic	East of Euclid	3000	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	6825	9548	0.71	66.2	25.8	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.862	6825	775	9600	2100	0.71	0.37	66.1	59.7	25.8	28.7	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	6020	9548	0.63	67.9	22.2	C

Segment 4: Merge

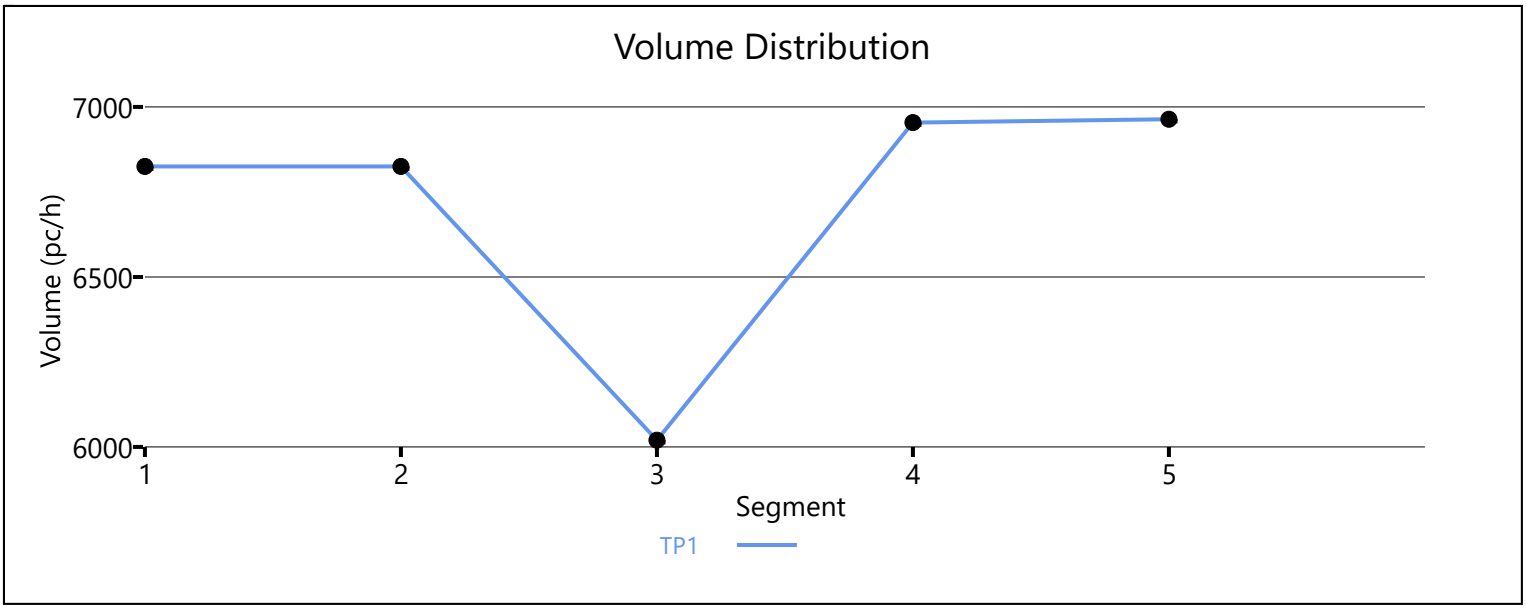
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.862	6954	934	9600	2100	0.72	0.44	62.9	60.5	27.6	24.7	C

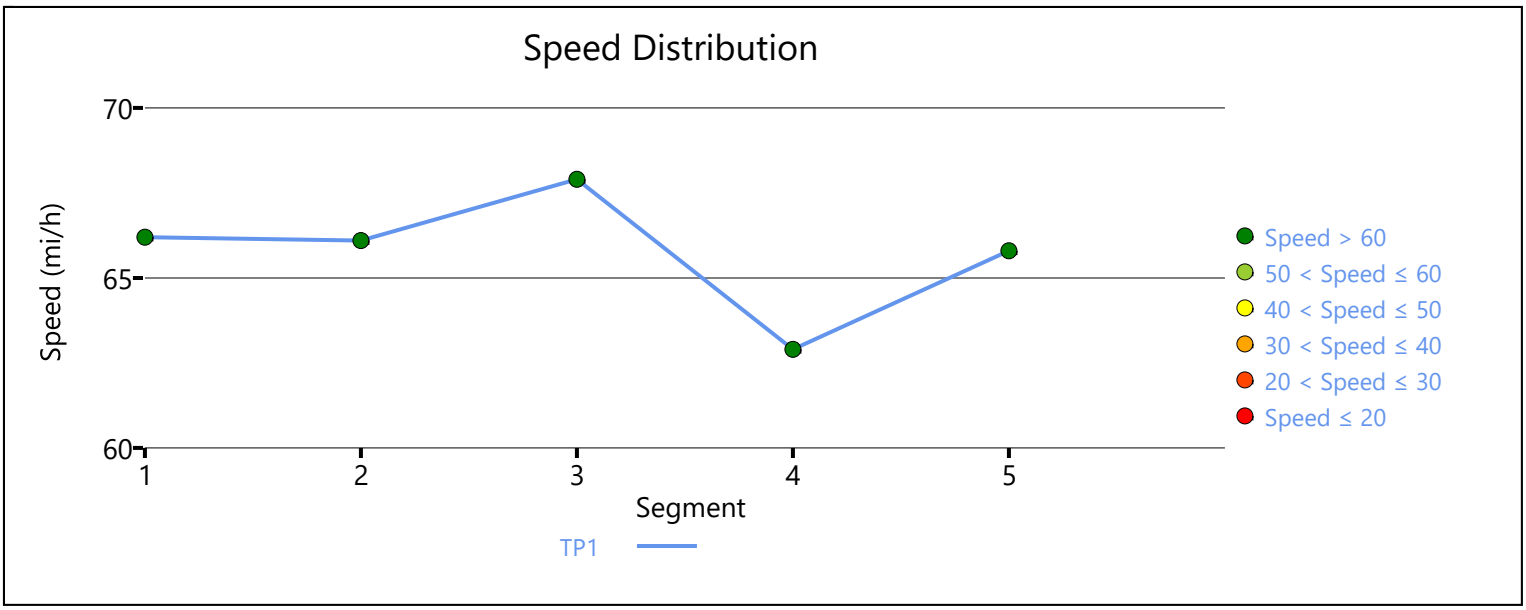
Segment 5: Basic

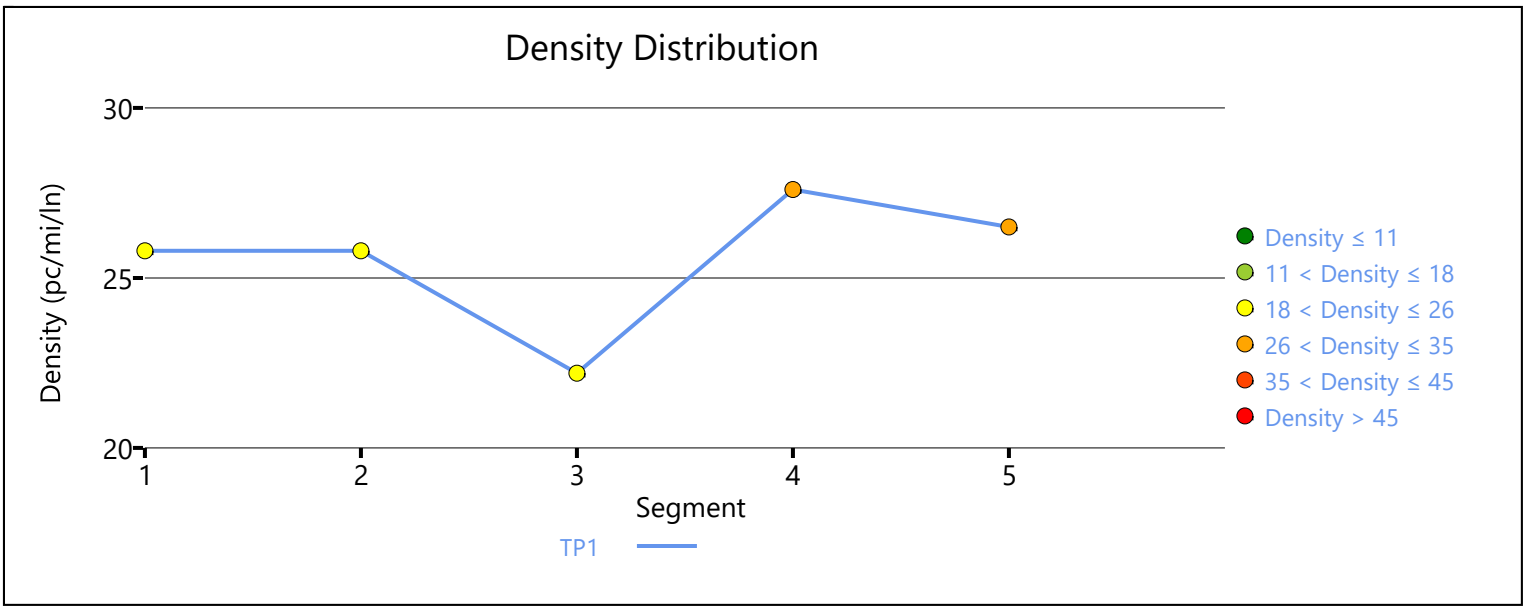
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	6964	9548	0.73	65.8	26.5	D

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	65.8	25.5	25.2	1.6	C

Facility Overall Results			
Space Mean Speed, mi/h	65.8	Density, veh/mi/ln	25.2
Average Travel Time, min	1.6	Density, pc/mi/ln	25.5







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APPENDIX 6.9:

E+P (BUILDING 1) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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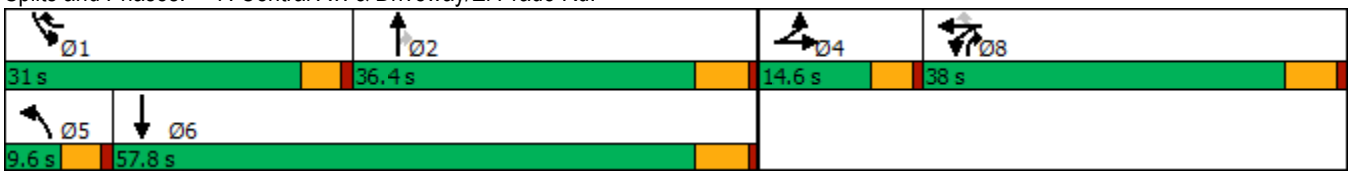
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	2	6	765	4	515	2	811	538	259	695
Future Volume (vph)	2	6	765	4	515	2	811	538	259	695
Turn Type	Split	NA	Split	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	4	4	8	8	1	5	2	8	1	6
Permitted Phases					8			2		
Detector Phase	4	4	8	8	1	5	2	8	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	34.8	34.8	9.6	9.6	27.8	34.8	9.6	24.8
Total Split (s)	14.6	14.6	38.0	38.0	31.0	9.6	36.4	38.0	31.0	57.8
Total Split (%)	12.2%	12.2%	31.7%	31.7%	25.8%	8.0%	30.3%	31.7%	25.8%	48.2%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	5.8	4.6	4.6	5.8	5.8	4.6	5.8
Lead/Lag					Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	None	Max
Act Effct Green (s)	10.1	10.1	30.7	30.7	49.3	5.1	36.8	67.5	12.7	52.6
Actuated g/C Ratio	0.10	0.10	0.31	0.31	0.50	0.05	0.37	0.68	0.13	0.53
v/c Ratio	0.01	0.04	0.82	0.78	0.59	0.02	0.65	0.46	0.66	0.28
Control Delay	45.5	43.0	48.3	44.6	11.2	50.5	30.4	2.2	50.1	14.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.5	43.0	48.3	44.6	11.2	50.5	30.4	2.2	50.1	14.4
LOS	D	D	D	D	B	D	C	A	D	B
Approach Delay		43.6		32.3			19.2			24.0
Approach LOS		D		C			B			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 99	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 25.2	Intersection LOS: C
Intersection Capacity Utilization 78.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 7: Central Av. & Driveway/El Prado Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	6	1	765	4	515	2	811	538	259	695	11
Future Volume (veh/h)	2	6	1	765	4	515	2	811	538	259	695	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	2	6	0	784	0	309	2	828	375	264	709	8
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	32	36	0	865	0	569	4	1383	1017	331	2540	29
Arrive On Green	0.02	0.02	0.00	0.27	0.00	0.27	0.00	0.40	0.40	0.11	0.51	0.51
Sat Flow, veh/h	1619	1800	0	3238	0	1525	1619	3420	1505	3141	5008	56
Grp Volume(v), veh/h	2	6	0	784	0	309	2	828	375	264	464	253
Grp Sat Flow(s),veh/h/ln	1619	1800	0	1619	0	1525	1619	1710	1505	1570	1638	1788
Q Serve(g_s), s	0.1	0.3	0.0	24.0	0.0	16.3	0.1	19.5	11.2	8.4	8.3	8.3
Cycle Q Clear(g_c), s	0.1	0.3	0.0	24.0	0.0	16.3	0.1	19.5	11.2	8.4	8.3	8.3
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	32	36	0	865	0	569	4	1383	1017	331	1662	907
V/C Ratio(X)	0.06	0.17	0.00	0.91	0.00	0.54	0.46	0.60	0.37	0.80	0.28	0.28
Avail Cap(c_a), veh/h	158	176	0	1017	0	640	79	1383	1017	809	1662	907
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.3	49.4	0.0	36.3	0.0	25.3	51.0	24.0	7.4	44.8	14.5	14.5
Incr Delay (d2), s/veh	0.3	0.8	0.0	9.5	0.0	0.3	25.2	1.9	1.0	1.7	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.2	0.0	10.0	0.0	5.5	0.1	7.7	7.0	3.2	2.9	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.6	50.2	0.0	45.8	0.0	25.6	76.3	25.9	8.4	46.5	14.9	15.3
LnGrp LOS	D	D	A	D	A	C	E	C	A	D	B	B
Approach Vol, veh/h		8			1093			1205			981	
Approach Delay, s/veh		50.1			40.1			20.5			23.5	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.4	47.3		6.6	4.9	57.8		33.2				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		5.8				
Max Green Setting (Gmax), s	26.4	30.6		10.0	5.0	52.0		32.2				
Max Q Clear Time (g_c+I1), s	10.4	21.5		2.3	2.1	10.3		26.0				
Green Ext Time (p_c), s	0.4	4.4		0.0	0.0	4.6		1.4				

Intersection Summary		
HCM 6th Ctrl Delay		28.0
HCM 6th LOS		C

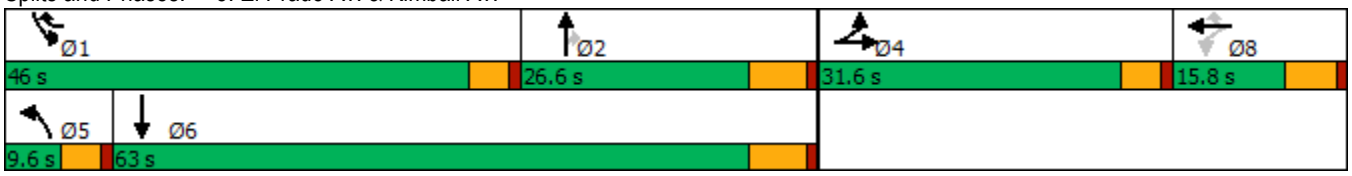
Notes

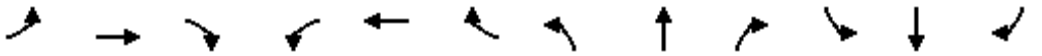
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	22	4	31	16	769	6	276	30	421	242
Future Volume (vph)	22	4	31	16	769	6	276	30	421	242
Turn Type	Split	NA	Perm	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	4	4		8	1	5	2		1	6
Permitted Phases			8		8			2		
Detector Phase	4	4	8	8	1	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	15.8	15.8	9.6	9.6	16.2	16.2	9.6	24.2
Total Split (s)	31.6	31.6	15.8	15.8	46.0	9.6	26.6	26.6	46.0	63.0
Total Split (%)	26.3%	26.3%	13.2%	13.2%	38.3%	8.0%	22.2%	22.2%	38.3%	52.5%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		5.8	4.6	4.6	6.2	6.2	4.6	6.2
Lead/Lag					Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Max	None	None	None	Max	Max
Act Effct Green (s)	13.1	13.1		10.5	51.6	5.2	20.1	20.1	43.4	70.2
Actuated g/C Ratio	0.14	0.14		0.11	0.55	0.06	0.22	0.22	0.47	0.75
v/c Ratio	0.10	0.03		0.31	0.73	0.07	0.75	0.07	0.30	0.22
Control Delay	40.5	31.9		51.4	9.3	53.2	51.5	0.3	20.8	10.0
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.5	31.9		51.4	9.3	53.2	51.5	0.3	20.8	10.0
LOS	D	C		D	A	D	D	A	C	B
Approach Delay		38.5		11.8			46.6			16.5
Approach LOS		D		B			D			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 93.3	
Natural Cycle: 85	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 19.8	Intersection LOS: B
Intersection Capacity Utilization 86.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 8: El Prado Av. & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	4	3	31	16	769	6	276	30	421	242	38
Future Volume (veh/h)	22	4	3	31	16	769	6	276	30	421	242	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	23	4	2	33	17	412	6	291	32	443	255	37
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	91	64	32	120	62	821	12	330	280	1362	934	135
Arrive On Green	0.06	0.06	0.06	0.10	0.10	0.10	0.01	0.18	0.18	0.43	0.61	0.61
Sat Flow, veh/h	1619	1132	566	1150	592	1525	1619	1800	1525	3141	1532	222
Grp Volume(v), veh/h	23	0	6	50	0	412	6	291	32	443	0	292
Grp Sat Flow(s),veh/h/ln	1619	0	1698	1742	0	1525	1619	1800	1525	1570	0	1754
Q Serve(g_s), s	1.3	0.0	0.3	2.5	0.0	10.0	0.4	15.0	1.7	8.9	0.0	7.4
Cycle Q Clear(g_c), s	1.3	0.0	0.3	2.5	0.0	10.0	0.4	15.0	1.7	8.9	0.0	7.4
Prop In Lane	1.00		0.33	0.66		1.00	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	91	0	95	182	0	821	12	330	280	1362	0	1069
V/C Ratio(X)	0.25	0.00	0.06	0.27	0.00	0.50	0.48	0.88	0.11	0.33	0.00	0.27
Avail Cap(c_a), veh/h	458	0	480	182	0	821	85	385	326	1362	0	1069
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.1	0.0	42.7	39.4	0.0	13.9	47.2	38.0	32.5	17.8	0.0	8.7
Incr Delay (d2), s/veh	1.4	0.0	0.3	0.8	0.0	0.5	10.3	18.5	0.2	0.6	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.1	1.1	0.0	5.0	0.2	7.9	0.6	3.0	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.6	0.0	43.0	40.2	0.0	14.4	57.5	56.5	32.7	18.5	0.0	9.4
LnGrp LOS	D	A	D	D	A	B	E	E	C	B	A	A
Approach Vol, veh/h		29			462			329			735	
Approach Delay, s/veh		44.2			17.2			54.2			14.9	
Approach LOS		D			B			D			B	

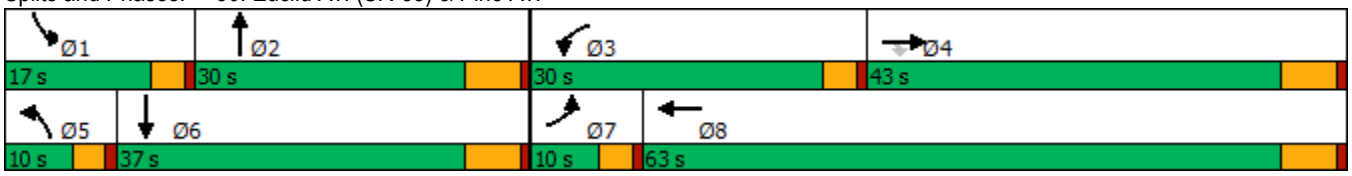
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	46.0	23.7		10.0	5.3	64.4		15.8				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		5.8				
Max Green Setting (Gmax), s	41.4	20.4		27.0	5.0	56.8		10.0				
Max Q Clear Time (g_c+I1), s	10.9	17.0		3.3	2.4	9.4		12.0				
Green Ext Time (p_c), s	0.8	0.5		0.1	0.0	1.6		0.0				

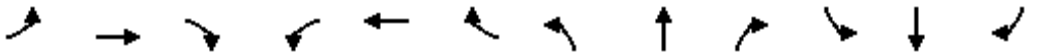
Intersection Summary			
HCM 6th Ctrl Delay		24.4	
HCM 6th LOS		C	

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	8	177	49	981	320	58	631	650	38	623
Future Volume (vph)	8	177	49	981	320	58	631	650	38	623
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Free	Prot	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases			4					Free		
Detector Phase	7	4	4	3	8	5	2		1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	9.0	43.0	43.0	9.0	45.0	9.0	11.0		9.0	29.0
Total Split (s)	10.0	43.0	43.0	30.0	63.0	10.0	30.0		17.0	37.0
Total Split (%)	8.3%	35.8%	35.8%	25.0%	52.5%	8.3%	25.0%		14.2%	30.8%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0		3.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	4.0	6.0		4.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Min		None	Min
Act Effct Green (s)	5.4	17.8	17.8	26.9	47.3	6.1	24.2	92.1	7.0	23.2
Actuated g/C Ratio	0.06	0.19	0.19	0.29	0.51	0.07	0.26	1.00	0.08	0.25
v/c Ratio	0.09	0.52	0.12	1.17	0.41	0.57	0.73	0.44	0.32	0.77
Control Delay	51.0	39.5	0.6	123.1	17.0	68.2	38.6	0.9	52.4	39.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.0	39.5	0.6	123.1	17.0	68.2	38.6	0.9	52.4	39.8
LOS	D	D	A	F	B	E	D	A	D	D
Approach Delay		31.6			94.6		21.6			40.5
Approach LOS		C			F		C			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 92.1	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.17	
Intersection Signal Delay: 53.1	Intersection LOS: D
Intersection Capacity Utilization 82.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 30: Euclid Av. (SR-83) & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	177	49	981	320	39	58	631	650	38	623	16
Future Volume (veh/h)	8	177	49	981	320	39	58	631	650	38	623	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1600	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	8	182	0	1011	330	38	60	651	0	39	642	12
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	17	250		983	731	84	75	808		59	777	15
Arrive On Green	0.01	0.14	0.00	0.33	0.46	0.46	0.05	0.24	0.00	0.04	0.23	0.23
Sat Flow, veh/h	1619	1800	1525	2956	1585	182	1619	3420	1525	1619	3434	64
Grp Volume(v), veh/h	8	182	0	1011	0	368	60	651	0	39	320	334
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1478	0	1767	1619	1710	1525	1619	1710	1788
Q Serve(g_s), s	0.4	7.6	0.0	26.0	0.0	11.1	2.9	14.0	0.0	1.9	13.9	13.9
Cycle Q Clear(g_c), s	0.4	7.6	0.0	26.0	0.0	11.1	2.9	14.0	0.0	1.9	13.9	13.9
Prop In Lane	1.00		1.00	1.00		0.10	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	17	250		983	0	815	75	808		59	387	405
V/C Ratio(X)	0.48	0.73		1.03	0.00	0.45	0.80	0.81		0.66	0.83	0.83
Avail Cap(c_a), veh/h	124	851		983	0	1288	124	1049		269	678	709
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.5	32.3	0.0	26.1	0.0	14.3	36.9	28.2	0.0	37.2	28.8	28.8
Incr Delay (d2), s/veh	7.9	5.6	0.0	36.4	0.0	0.6	6.9	2.7	0.0	4.6	1.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	3.5	0.0	12.8	0.0	3.8	1.2	5.4	0.0	0.8	5.2	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.5	37.9	0.0	62.5	0.0	14.9	43.9	30.9	0.0	41.8	30.5	30.5
LnGrp LOS	D	D		F	A	B	D	C		D	C	C
Approach Vol, veh/h		190	A		1379			711	A		693	
Approach Delay, s/veh		38.3			49.8			32.0			31.1	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	24.5	30.0	16.9	7.6	23.7	4.8	42.1
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	13.0	24.0	26.0	37.0	6.0	31.0	6.0	57.0
Max Q Clear Time (g_c+I1), s	3.9	16.0	28.0	9.6	4.9	15.9	2.4	13.1
Green Ext Time (p_c), s	0.0	1.6	0.0	1.3	0.0	1.8	0.0	3.2

Intersection Summary	
HCM 6th Ctrl Delay	40.4
HCM 6th LOS	D

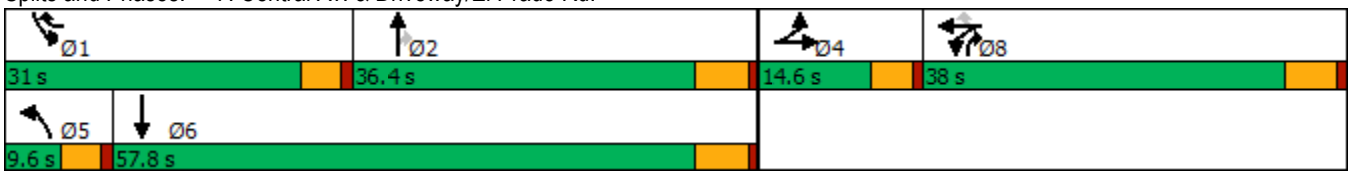
Notes

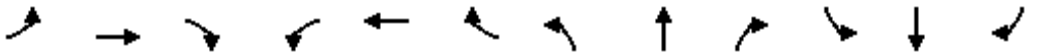
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	17	12	596	3	473	6	752	794	617	847
Future Volume (vph)	17	12	596	3	473	6	752	794	617	847
Turn Type	Split	NA	Split	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	4	4	8	8	1	5	2	8	1	6
Permitted Phases					8			2		
Detector Phase	4	4	8	8	1	5	2	8	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	34.8	34.8	9.6	9.6	27.8	34.8	9.6	24.8
Total Split (s)	14.6	14.6	38.0	38.0	31.0	9.6	36.4	38.0	31.0	57.8
Total Split (%)	12.2%	12.2%	31.7%	31.7%	25.8%	8.0%	30.3%	31.7%	25.8%	48.2%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	5.8	4.6	4.6	5.8	5.8	4.6	5.8
Lead/Lag					Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	None	Max
Act Effct Green (s)	10.3	10.3	26.5	26.5	52.3	5.1	31.4	57.9	24.5	58.9
Actuated g/C Ratio	0.10	0.10	0.25	0.25	0.49	0.05	0.29	0.54	0.23	0.55
v/c Ratio	0.12	0.12	0.82	0.78	0.58	0.08	0.78	0.86	0.90	0.33
Control Delay	52.4	39.4	56.7	52.5	12.0	57.5	43.8	20.5	58.0	16.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.4	39.4	56.7	52.5	12.0	57.5	43.8	20.5	58.0	16.0
LOS	D	D	E	D	B	E	D	C	E	B
Approach Delay		45.4		35.8			31.9			33.5
Approach LOS		D		D			C			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 106.9	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 33.6	Intersection LOS: C
Intersection Capacity Utilization 92.7%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 7: Central Av. & Driveway/El Prado Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	12	8	596	3	473	6	752	794	617	847	18
Future Volume (veh/h)	17	12	8	596	3	473	6	752	794	617	847	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	18	12	3	623	0	238	6	783	487	643	882	17
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	96	82	21	710	0	677	12	1012	784	705	2545	49
Arrive On Green	0.06	0.06	0.06	0.22	0.00	0.22	0.01	0.30	0.30	0.22	0.51	0.51
Sat Flow, veh/h	1619	1390	347	3238	0	1523	1619	3420	1521	3141	4963	96
Grp Volume(v), veh/h	18	0	15	623	0	238	6	783	487	643	582	317
Grp Sat Flow(s),veh/h/ln	1619	0	1737	1619	0	1523	1619	1710	1521	1570	1638	1783
Q Serve(g_s), s	1.1	0.0	0.8	19.2	0.0	10.7	0.4	21.6	23.6	20.6	10.9	10.9
Cycle Q Clear(g_c), s	1.1	0.0	0.8	19.2	0.0	10.7	0.4	21.6	23.6	20.6	10.9	10.9
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	96	0	103	710	0	677	12	1012	784	705	1680	914
V/C Ratio(X)	0.19	0.00	0.15	0.88	0.00	0.35	0.48	0.77	0.62	0.91	0.35	0.35
Avail Cap(c_a), veh/h	157	0	168	1008	0	817	78	1012	784	802	1680	914
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.3	0.0	46.2	39.0	0.0	19.0	51.1	33.3	17.9	39.1	14.9	14.9
Incr Delay (d2), s/veh	0.3	0.0	0.2	5.0	0.0	0.1	10.5	5.8	3.7	12.7	0.6	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.4	7.7	0.0	3.5	0.2	9.3	12.7	8.8	3.8	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.6	0.0	46.4	44.0	0.0	19.1	61.6	39.0	21.6	51.8	15.5	16.0
LnGrp LOS	D	A	D	D	A	B	E	D	C	D	B	B
Approach Vol, veh/h		33			861			1276			1542	
Approach Delay, s/veh		46.5			37.1			32.5			30.7	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	27.8	36.4		10.7	5.4	58.8		28.5				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		5.8				
Max Green Setting (Gmax), s	26.4	30.6		10.0	5.0	52.0		32.2				
Max Q Clear Time (g_c+I1), s	22.6	25.6		3.1	2.4	12.9		21.2				
Green Ext Time (p_c), s	0.6	2.9		0.0	0.0	6.1		1.3				

Intersection Summary			
HCM 6th Ctrl Delay		32.9	
HCM 6th LOS		C	

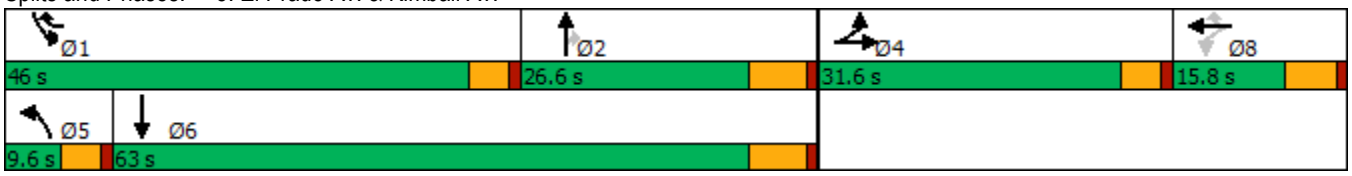
Notes

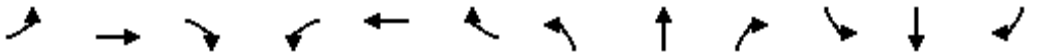
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	33	14	25	5	755	4	261	33	857	319
Future Volume (vph)	33	14	25	5	755	4	261	33	857	319
Turn Type	Split	NA	Perm	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	4	4		8	1	5	2		1	6
Permitted Phases			8		8			2		
Detector Phase	4	4	8	8	1	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	15.8	15.8	9.6	9.6	16.2	16.2	9.6	24.2
Total Split (s)	31.6	31.6	15.8	15.8	46.0	9.6	26.6	26.6	46.0	63.0
Total Split (%)	26.3%	26.3%	13.2%	13.2%	38.3%	8.0%	22.2%	22.2%	38.3%	52.5%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		5.8	4.6	4.6	6.2	6.2	4.6	6.2
Lead/Lag					Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Max	None	None	None	Max	Max
Act Effct Green (s)	13.2	13.2		10.6	49.6	5.3	18.7	18.7	43.8	69.4
Actuated g/C Ratio	0.14	0.14		0.11	0.54	0.06	0.20	0.20	0.48	0.75
v/c Ratio	0.15	0.08		0.21	0.74	0.04	0.76	0.08	0.61	0.26
Control Delay	40.9	33.7		49.5	11.0	52.8	52.9	0.4	25.5	10.6
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.9	33.7		49.5	11.0	52.8	52.9	0.4	25.5	10.6
LOS	D	C		D	B	D	D	A	C	B
Approach Delay		38.3		12.4			47.1			21.4
Approach LOS		D		B			D			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 92.2	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 22.0	Intersection LOS: C
Intersection Capacity Utilization 85.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 8: El Prado Av. & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	14	5	25	5	755	4	261	33	857	319	11
Future Volume (veh/h)	33	14	5	25	5	755	4	261	33	857	319	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	35	15	3	27	5	358	4	278	31	912	339	11
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	127	114	23	150	28	804	9	317	269	1335	1032	34
Arrive On Green	0.08	0.08	0.08	0.10	0.10	0.10	0.01	0.18	0.18	0.43	0.60	0.60
Sat Flow, veh/h	1619	1456	291	1457	270	1518	1619	1800	1525	3141	1732	56
Grp Volume(v), veh/h	35	0	18	32	0	358	4	278	31	912	0	350
Grp Sat Flow(s),veh/h/ln	1619	0	1748	1727	0	1518	1619	1800	1525	1570	0	1788
Q Serve(g_s), s	2.0	0.0	0.9	1.6	0.0	10.0	0.2	14.7	1.7	22.9	0.0	9.6
Cycle Q Clear(g_c), s	2.0	0.0	0.9	1.6	0.0	10.0	0.2	14.7	1.7	22.9	0.0	9.6
Prop In Lane	1.00		0.17	0.84		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	127	0	137	177	0	804	9	317	269	1335	0	1066
V/C Ratio(X)	0.28	0.00	0.13	0.18	0.00	0.45	0.47	0.88	0.12	0.68	0.00	0.33
Avail Cap(c_a), veh/h	449	0	485	177	0	804	83	377	320	1335	0	1066
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.3	0.0	41.8	39.9	0.0	14.2	48.3	39.1	33.7	22.7	0.0	9.9
Incr Delay (d2), s/veh	1.2	0.0	0.4	0.5	0.0	0.4	14.1	17.9	0.2	2.8	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.4	0.7	0.0	4.4	0.1	7.7	0.6	8.1	0.0	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.5	0.0	42.2	40.4	0.0	14.6	62.4	57.0	33.9	25.5	0.0	10.7
LnGrp LOS	D	A	D	D	A	B	E	E	C	C	A	B
Approach Vol, veh/h		53			390			313			1262	
Approach Delay, s/veh		43.0			16.7			54.8			21.4	
Approach LOS		D			B			D			C	

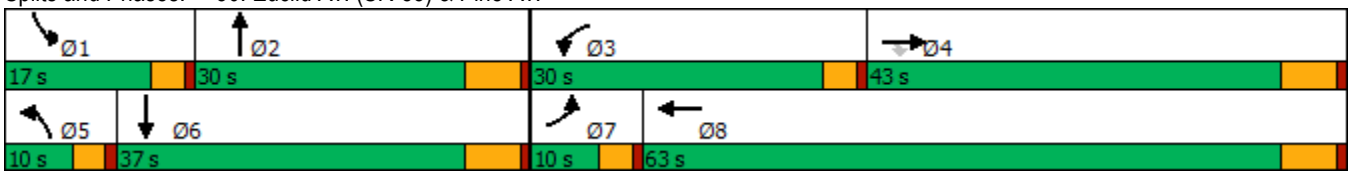
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	46.0	23.4		12.2	5.1	64.2		15.8				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		5.8				
Max Green Setting (Gmax), s	41.4	20.4		27.0	5.0	56.8		10.0				
Max Q Clear Time (g_c+I1), s	24.9	16.7		4.0	2.2	11.6		12.0				
Green Ext Time (p_c), s	1.7	0.5		0.1	0.0	1.9		0.0				

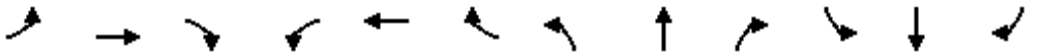
Intersection Summary			
HCM 6th Ctrl Delay		26.2	
HCM 6th LOS		C	

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	5	441	98	517	70	57	670	1061	68	711
Future Volume (vph)	5	441	98	517	70	57	670	1061	68	711
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Free	Prot	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases			4					Free		
Detector Phase	7	4	4	3	8	5	2		1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	9.0	43.0	43.0	9.0	45.0	9.0	11.0		9.0	29.0
Total Split (s)	10.0	43.0	43.0	30.0	63.0	10.0	30.0		17.0	37.0
Total Split (%)	8.3%	35.8%	35.8%	25.0%	52.5%	8.3%	25.0%		14.2%	30.8%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0		3.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	4.0	6.0		4.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Min		None	Min
Act Effct Green (s)	5.4	31.7	31.7	22.6	56.7	6.1	25.2	106.7	9.0	28.3
Actuated g/C Ratio	0.05	0.30	0.30	0.21	0.53	0.06	0.24	1.00	0.08	0.27
v/c Ratio	0.06	0.84	0.17	0.85	0.11	0.63	0.85	0.71	0.51	0.81
Control Delay	56.4	51.7	0.7	55.6	11.5	84.5	52.7	2.8	64.0	46.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.4	51.7	0.7	55.6	11.5	84.5	52.7	2.8	64.0	46.6
LOS	E	D	A	E	B	F	D	A	E	D
Approach Delay		42.6			48.5		24.1			48.1
Approach LOS		D			D		C			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 106.7	
Natural Cycle: 95	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 35.8	Intersection LOS: D
Intersection Capacity Utilization 83.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 30: Euclid Av. (SR-83) & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	441	98	517	70	29	57	670	1061	68	711	4
Future Volume (veh/h)	5	441	98	517	70	29	57	670	1061	68	711	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1600	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	5	450	0	528	71	28	58	684	0	69	726	4
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	11	523		601	599	236	72	795		86	842	5
Arrive On Green	0.01	0.29	0.00	0.20	0.49	0.49	0.04	0.23	0.00	0.05	0.24	0.24
Sat Flow, veh/h	1619	1800	1525	2956	1228	484	1619	3420	1525	1619	3487	19
Grp Volume(v), veh/h	5	450	0	528	0	99	58	684	0	69	356	374
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1478	0	1713	1619	1710	1525	1619	1710	1797
Q Serve(g_s), s	0.3	21.5	0.0	15.7	0.0	2.9	3.2	17.4	0.0	3.8	18.1	18.1
Cycle Q Clear(g_c), s	0.3	21.5	0.0	15.7	0.0	2.9	3.2	17.4	0.0	3.8	18.1	18.1
Prop In Lane	1.00		1.00	1.00		0.28	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	11	523		601	0	835	72	795		86	413	434
V/C Ratio(X)	0.47	0.86		0.88	0.00	0.12	0.81	0.86		0.80	0.86	0.86
Avail Cap(c_a), veh/h	107	734		847	0	1076	107	905		232	584	614
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.9	30.4	0.0	35.1	0.0	12.7	43.0	33.4	0.0	42.5	33.0	33.0
Incr Delay (d2), s/veh	11.7	8.6	0.0	6.0	0.0	0.1	14.4	6.9	0.0	6.3	6.9	6.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	9.8	0.0	5.7	0.0	1.0	1.5	7.3	0.0	1.6	7.6	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.6	39.1	0.0	41.1	0.0	12.7	57.3	40.3	0.0	48.8	39.8	39.5
LnGrp LOS	E	D		D	A	B	E	D		D	D	D
Approach Vol, veh/h		455	A		627			742	A		799	
Approach Delay, s/veh		39.3			36.6			41.6			40.5	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.8	27.1	22.4	32.4	8.0	27.9	4.6	50.2
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	13.0	24.0	26.0	37.0	6.0	31.0	6.0	57.0
Max Q Clear Time (g_c+I1), s	5.8	19.4	17.7	23.5	5.2	20.1	2.3	4.9
Green Ext Time (p_c), s	0.0	1.2	0.7	2.9	0.0	1.8	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	39.7
HCM 6th LOS	D

Notes

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

APPENDIX 6.10:

E+P (PROJECT BUILDOUT) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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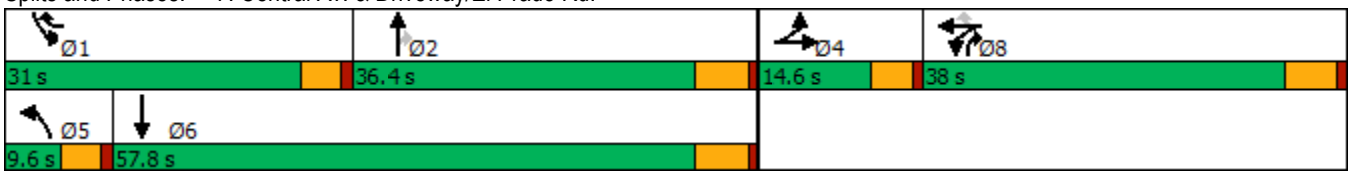
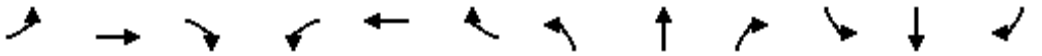
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	2	6	773	4	516	2	811	565	266	695
Future Volume (vph)	2	6	773	4	516	2	811	565	266	695
Turn Type	Split	NA	Split	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	4	4	8	8	1	5	2	8	1	6
Permitted Phases					8			2		
Detector Phase	4	4	8	8	1	5	2	8	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	34.8	34.8	9.6	9.6	27.8	34.8	9.6	24.8
Total Split (s)	14.6	14.6	38.0	38.0	31.0	9.6	36.4	38.0	31.0	57.8
Total Split (%)	12.2%	12.2%	31.7%	31.7%	25.8%	8.0%	30.3%	31.7%	25.8%	48.2%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	5.8	4.6	4.6	5.8	5.8	4.6	5.8
Lead/Lag					Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	None	Max
Act Effct Green (s)	10.1	10.1	31.0	31.0	49.8	5.1	36.6	67.6	12.9	52.5
Actuated g/C Ratio	0.10	0.10	0.31	0.31	0.50	0.05	0.37	0.68	0.13	0.53
v/c Ratio	0.01	0.04	0.82	0.78	0.58	0.02	0.66	0.49	0.66	0.28
Control Delay	45.5	43.0	48.4	44.6	11.1	50.5	30.9	2.6	50.2	14.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.5	43.0	48.4	44.6	11.1	50.5	30.9	2.6	50.2	14.5
LOS	D	D	D	D	B	D	C	A	D	B
Approach Delay		43.6		32.3			19.3			24.3
Approach LOS		D		C			B			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 99.3	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 25.3	Intersection LOS: C
Intersection Capacity Utilization 78.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 7: Central Av. & Driveway/El Prado Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	6	1	773	4	516	2	811	565	266	695	11
Future Volume (veh/h)	2	6	1	773	4	516	2	811	565	266	695	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	2	6	0	792	0	310	2	828	403	271	709	8
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	32	36	0	872	0	575	4	1371	1014	338	2533	29
Arrive On Green	0.02	0.02	0.00	0.27	0.00	0.27	0.00	0.40	0.40	0.11	0.51	0.51
Sat Flow, veh/h	1619	1800	0	3238	0	1525	1619	3420	1505	3141	5008	56
Grp Volume(v), veh/h	2	6	0	792	0	310	2	828	403	271	464	253
Grp Sat Flow(s),veh/h/ln	1619	1800	0	1619	0	1525	1619	1710	1505	1570	1638	1788
Q Serve(g_s), s	0.1	0.3	0.0	24.3	0.0	16.3	0.1	19.7	12.4	8.7	8.4	8.4
Cycle Q Clear(g_c), s	0.1	0.3	0.0	24.3	0.0	16.3	0.1	19.7	12.4	8.7	8.4	8.4
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	32	36	0	872	0	575	4	1371	1014	338	1657	904
V/C Ratio(X)	0.06	0.17	0.00	0.91	0.00	0.54	0.46	0.60	0.40	0.80	0.28	0.28
Avail Cap(c_a), veh/h	157	175	0	1014	0	642	79	1371	1014	806	1657	904
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.4	49.6	0.0	36.3	0.0	25.0	51.2	24.4	7.6	44.8	14.6	14.6
Incr Delay (d2), s/veh	0.3	0.8	0.0	9.8	0.0	0.3	25.3	2.0	1.2	1.7	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.2	0.0	10.1	0.0	5.5	0.1	7.8	7.8	3.3	2.9	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.7	50.4	0.0	46.2	0.0	25.3	76.4	26.3	8.8	46.5	15.0	15.4
LnGrp LOS	D	D	A	D	A	C	E	C	A	D	B	B
Approach Vol, veh/h		8			1102			1233			988	
Approach Delay, s/veh		50.2			40.3			20.7			23.8	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.7	47.0		6.6	4.9	57.8		33.5				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		5.8				
Max Green Setting (Gmax), s	26.4	30.6		10.0	5.0	52.0		32.2				
Max Q Clear Time (g_c+I1), s	10.7	21.7		2.3	2.1	10.4		26.3				
Green Ext Time (p_c), s	0.4	4.4		0.0	0.0	4.6		1.4				

Intersection Summary			
HCM 6th Ctrl Delay		28.2	
HCM 6th LOS		C	

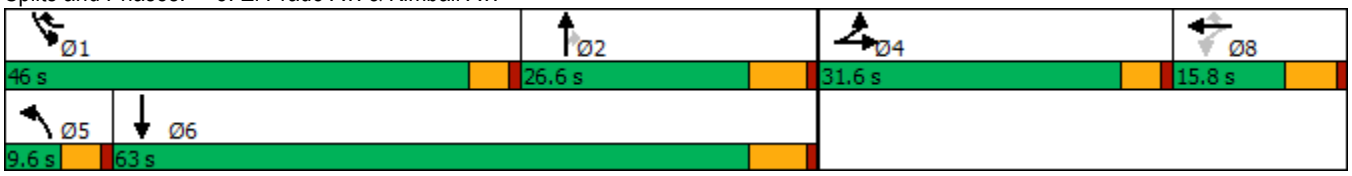
Notes

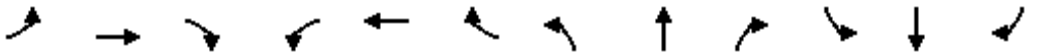
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	22	4	31	16	777	6	278	30	448	247
Future Volume (vph)	22	4	31	16	777	6	278	30	448	247
Turn Type	Split	NA	Perm	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	4	4		8	1	5	2		1	6
Permitted Phases			8		8			2		
Detector Phase	4	4	8	8	1	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	15.8	15.8	9.6	9.6	16.2	16.2	9.6	24.2
Total Split (s)	31.6	31.6	15.8	15.8	46.0	9.6	26.6	26.6	46.0	63.0
Total Split (%)	26.3%	26.3%	13.2%	13.2%	38.3%	8.0%	22.2%	22.2%	38.3%	52.5%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		5.8	4.6	4.6	6.2	6.2	4.6	6.2
Lead/Lag					Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Max	None	None	None	Max	Max
Act Effct Green (s)	13.1	13.1		10.5	51.6	5.2	20.3	20.3	43.4	70.3
Actuated g/C Ratio	0.14	0.14		0.11	0.55	0.06	0.22	0.22	0.46	0.75
v/c Ratio	0.10	0.03		0.31	0.74	0.07	0.75	0.07	0.32	0.23
Control Delay	40.5	31.9		51.5	9.7	53.2	51.5	0.3	21.0	10.1
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.5	31.9		51.5	9.7	53.2	51.5	0.3	21.0	10.1
LOS	D	C		D	A	D	D	A	C	B
Approach Delay		38.5		12.1			46.6			16.7
Approach LOS		D		B			D			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 93.4	
Natural Cycle: 85	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 20.0	Intersection LOS: C
Intersection Capacity Utilization 87.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 8: El Prado Av. & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	4	3	31	16	777	6	278	30	448	247	38
Future Volume (veh/h)	22	4	3	31	16	777	6	278	30	448	247	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	23	4	2	33	17	421	6	293	32	472	260	37
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	91	64	32	120	62	820	12	332	281	1360	937	133
Arrive On Green	0.06	0.06	0.06	0.10	0.10	0.10	0.01	0.18	0.18	0.43	0.61	0.61
Sat Flow, veh/h	1619	1132	566	1150	592	1525	1619	1800	1525	3141	1537	219
Grp Volume(v), veh/h	23	0	6	50	0	421	6	293	32	472	0	297
Grp Sat Flow(s),veh/h/ln	1619	0	1698	1742	0	1525	1619	1800	1525	1570	0	1755
Q Serve(g_s), s	1.3	0.0	0.3	2.5	0.0	10.0	0.4	15.2	1.7	9.6	0.0	7.6
Cycle Q Clear(g_c), s	1.3	0.0	0.3	2.5	0.0	10.0	0.4	15.2	1.7	9.6	0.0	7.6
Prop In Lane	1.00		0.33	0.66		1.00	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	91	0	95	182	0	820	12	332	281	1360	0	1070
V/C Ratio(X)	0.25	0.00	0.06	0.27	0.00	0.51	0.48	0.88	0.11	0.35	0.00	0.28
Avail Cap(c_a), veh/h	457	0	480	182	0	820	85	384	325	1360	0	1070
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.2	0.0	42.7	39.5	0.0	14.1	47.2	38.0	32.5	18.1	0.0	8.8
Incr Delay (d2), s/veh	1.4	0.0	0.3	0.8	0.0	0.5	10.3	18.8	0.2	0.7	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.1	1.1	0.0	5.2	0.2	8.0	0.6	3.3	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.6	0.0	43.0	40.3	0.0	14.7	57.5	56.8	32.7	18.8	0.0	9.4
LnGrp LOS	D	A	D	D	A	B	E	E	C	B	A	A
Approach Vol, veh/h		29			471			331			769	
Approach Delay, s/veh		44.3			17.4			54.5			15.2	
Approach LOS		D			B			D			B	

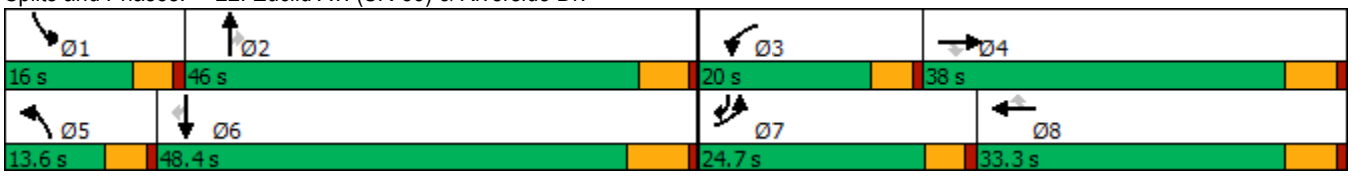
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	46.0	23.8		10.0	5.3	64.5		15.8				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		5.8				
Max Green Setting (Gmax), s	41.4	20.4		27.0	5.0	56.8		10.0				
Max Q Clear Time (g_c+I1), s	11.6	17.2		3.3	2.4	9.6		12.0				
Green Ext Time (p_c), s	0.8	0.5		0.1	0.0	1.6		0.0				

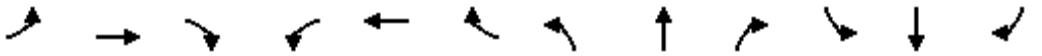
Intersection Summary												
HCM 6th Ctrl Delay			24.5									
HCM 6th LOS			C									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	153	311	52	189	488	115	67	922	155	174	986	152
Future Volume (vph)	153	311	52	189	488	115	67	922	155	174	986	152
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	25.8	25.8	9.6	31.8	31.8	9.6	30.4	30.4	9.6	34.5	9.6
Total Split (s)	24.7	38.0	38.0	20.0	33.3	33.3	13.6	46.0	46.0	16.0	48.4	24.7
Total Split (%)	20.6%	31.7%	31.7%	16.7%	27.8%	27.8%	11.3%	38.3%	38.3%	13.3%	40.3%	20.6%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	None
Act Effct Green (s)	15.0	24.9	24.9	15.4	25.3	25.3	8.0	40.7	40.7	11.4	45.2	62.1
Actuated g/C Ratio	0.13	0.22	0.22	0.14	0.22	0.22	0.07	0.36	0.36	0.10	0.40	0.55
v/c Ratio	0.75	0.82	0.13	0.90	0.67	0.26	0.62	0.79	0.25	1.12	0.76	0.18
Control Delay	68.9	59.4	0.6	89.4	45.4	3.9	76.0	38.6	5.6	154.3	35.6	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.9	59.4	0.6	89.4	45.4	3.9	76.0	38.6	5.6	154.3	35.6	4.2
LOS	E	E	A	F	D	A	E	D	A	F	D	A
Approach Delay		56.2			49.8			36.4			47.7	
Approach LOS		E			D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 112.9	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.12	
Intersection Signal Delay: 45.9	Intersection LOS: D
Intersection Capacity Utilization 83.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 22: Euclid Av. (SR-83) & Riverside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	311	52	189	488	115	67	922	155	174	986	152
Future Volume (veh/h)	153	311	52	189	488	115	67	922	155	174	986	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	161	327	39	199	514	92	71	971	123	183	1038	101
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	187	371	314	223	779	348	88	1240	553	165	1402	801
Arrive On Green	0.12	0.21	0.21	0.14	0.23	0.23	0.05	0.36	0.36	0.10	0.41	0.41
Sat Flow, veh/h	1619	1800	1525	1619	3420	1525	1619	3420	1525	1619	3420	1524
Grp Volume(v), veh/h	161	327	39	199	514	92	71	971	123	183	1038	101
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1619	1710	1525	1619	1710	1525	1619	1710	1524
Q Serve(g_s), s	10.9	19.7	2.3	13.5	15.3	5.5	4.9	28.3	6.3	11.4	28.8	3.8
Cycle Q Clear(g_c), s	10.9	19.7	2.3	13.5	15.3	5.5	4.9	28.3	6.3	11.4	28.8	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	187	371	314	223	779	348	88	1240	553	165	1402	801
V/C Ratio(X)	0.86	0.88	0.12	0.89	0.66	0.26	0.80	0.78	0.22	1.11	0.74	0.13
Avail Cap(c_a), veh/h	291	518	439	223	840	375	130	1240	553	165	1402	801
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.6	43.1	36.2	47.5	39.3	35.5	52.3	31.8	24.7	50.3	28.0	13.5
Incr Delay (d2), s/veh	9.2	12.4	0.2	32.5	1.7	0.4	12.0	5.0	0.9	102.7	3.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	9.7	0.9	7.3	6.4	2.0	2.2	11.6	2.3	9.2	11.9	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.8	55.6	36.4	80.0	41.0	35.9	64.4	36.7	25.7	152.9	31.5	13.8
LnGrp LOS	E	E	D	E	D	D	E	D	C	F	C	B
Approach Vol, veh/h		527			805			1165			1322	
Approach Delay, s/veh		54.8			50.1			37.3			47.0	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	47.1	20.0	28.9	10.7	52.4	17.6	31.3
Change Period (Y+Rc), s	4.6	* 6.5	4.6	5.8	4.6	6.5	4.6	5.8
Max Green Setting (Gmax), s	11.4	* 41	15.4	32.2	9.0	41.9	20.1	27.5
Max Q Clear Time (g_c+I1), s	13.4	30.3	15.5	21.7	6.9	30.8	12.9	17.3
Green Ext Time (p_c), s	0.0	4.5	0.0	1.3	0.0	5.4	0.1	2.5

Intersection Summary	
HCM 6th Ctrl Delay	45.8
HCM 6th LOS	D

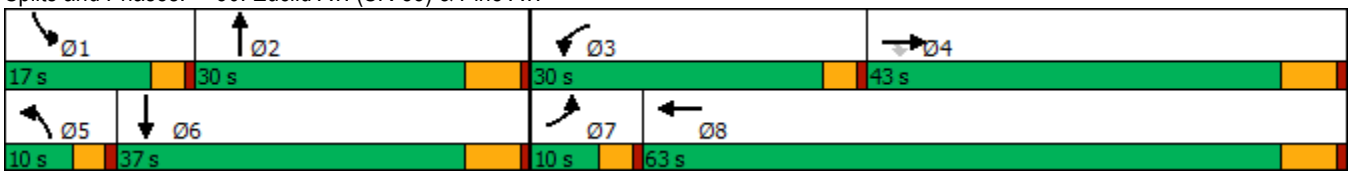
Notes

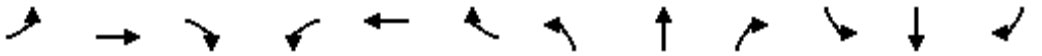
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	8	180	51	981	331	63	646	650	41	627
Future Volume (vph)	8	180	51	981	331	63	646	650	41	627
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Free	Prot	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases			4					Free		
Detector Phase	7	4	4	3	8	5	2		1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	9.0	43.0	43.0	9.0	45.0	9.0	11.0		9.0	29.0
Total Split (s)	10.0	43.0	43.0	30.0	63.0	10.0	30.0		17.0	37.0
Total Split (%)	8.3%	35.8%	35.8%	25.0%	52.5%	8.3%	25.0%		14.2%	30.8%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0		3.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	4.0	6.0		4.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Min		None	Min
Act Effct Green (s)	5.3	18.1	18.1	26.6	47.2	6.1	26.2	94.2	7.2	22.9
Actuated g/C Ratio	0.06	0.19	0.19	0.28	0.50	0.06	0.28	1.00	0.08	0.24
v/c Ratio	0.09	0.54	0.12	1.22	0.44	0.62	0.70	0.44	0.34	0.80
Control Delay	51.2	40.2	0.6	140.0	17.8	73.1	37.8	0.9	53.0	42.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.2	40.2	0.6	140.0	17.8	73.1	37.8	0.9	53.0	42.1
LOS	D	D	A	F	B	E	D	A	D	D
Approach Delay		32.1			105.8		21.8			42.8
Approach LOS		C			F		C			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 94.2	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.22	
Intersection Signal Delay: 57.8	Intersection LOS: E
Intersection Capacity Utilization 82.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 30: Euclid Av. (SR-83) & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	180	51	981	331	50	63	646	650	41	627	16
Future Volume (veh/h)	8	180	51	981	331	50	63	646	650	41	627	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1600	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	8	186	0	1011	341	50	65	666	0	42	646	12
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	16	254		973	706	104	80	816		62	780	14
Arrive On Green	0.01	0.14	0.00	0.33	0.46	0.46	0.05	0.24	0.00	0.04	0.23	0.23
Sat Flow, veh/h	1619	1800	1525	2956	1535	225	1619	3420	1525	1619	3435	64
Grp Volume(v), veh/h	8	186	0	1011	0	391	65	666	0	42	322	336
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1478	0	1760	1619	1710	1525	1619	1710	1789
Q Serve(g_s), s	0.4	7.8	0.0	26.0	0.0	12.2	3.1	14.5	0.0	2.0	14.1	14.1
Cycle Q Clear(g_c), s	0.4	7.8	0.0	26.0	0.0	12.2	3.1	14.5	0.0	2.0	14.1	14.1
Prop In Lane	1.00		1.00	1.00		0.13	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	16	254		973	0	809	80	816		62	388	406
V/C Ratio(X)	0.48	0.73		1.04	0.00	0.48	0.81	0.82		0.68	0.83	0.83
Avail Cap(c_a), veh/h	123	843		973	0	1270	123	1039		266	671	702
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.9	32.5	0.0	26.5	0.0	14.8	37.2	28.4	0.0	37.5	29.1	29.1
Incr Delay (d2), s/veh	8.0	5.7	0.0	39.5	0.0	0.6	11.3	3.2	0.0	4.8	1.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	3.6	0.0	13.3	0.0	4.2	1.4	5.6	0.0	0.8	5.3	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.9	38.2	0.0	66.0	0.0	15.4	48.5	31.7	0.0	42.3	30.8	30.7
LnGrp LOS	D	D		F	A	B	D	C		D	C	C
Approach Vol, veh/h		194	A		1402			731	A		700	
Approach Delay, s/veh		38.6			51.9			33.2			31.5	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	24.8	30.0	17.1	7.9	23.9	4.8	42.3
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	13.0	24.0	26.0	37.0	6.0	31.0	6.0	57.0
Max Q Clear Time (g_c+I1), s	4.0	16.5	28.0	9.8	5.1	16.1	2.4	14.2
Green Ext Time (p_c), s	0.0	1.6	0.0	1.3	0.0	1.8	0.0	3.4

Intersection Summary	
HCM 6th Ctrl Delay	41.8
HCM 6th LOS	D

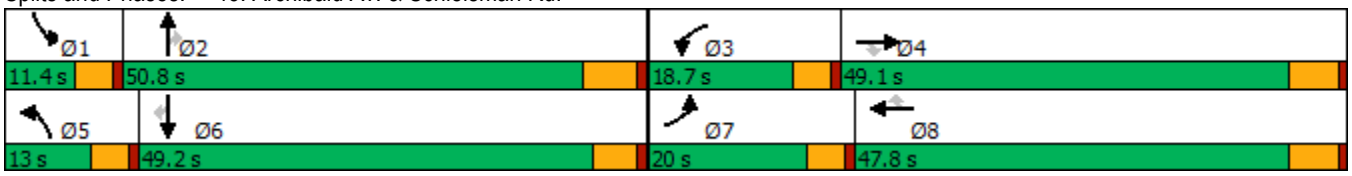
Notes

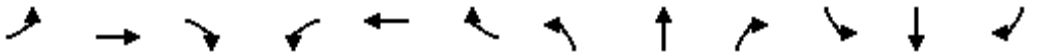
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	393	375	115	248	703	137	248	776	215	103	440	455
Future Volume (vph)	393	375	115	248	703	137	248	776	215	103	440	455
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	47.8	47.8	9.6	47.8	47.8	9.6	48.2	48.2	9.6	47.4	47.4
Total Split (s)	20.0	49.1	49.1	18.7	47.8	47.8	13.0	50.8	50.8	11.4	49.2	49.2
Total Split (%)	15.4%	37.8%	37.8%	14.4%	36.8%	36.8%	10.0%	39.1%	39.1%	8.8%	37.8%	37.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	5.2	5.2	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	6.2	6.2	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	None	None	Max	None	None	None	None	None	None	None	None
Act Effct Green (s)	16.0	24.9	24.9	14.6	23.5	23.5	8.7	26.7	26.7	6.7	25.5	25.5
Actuated g/C Ratio	0.17	0.26	0.26	0.15	0.25	0.25	0.09	0.28	0.28	0.07	0.27	0.27
v/c Ratio	0.74	0.31	0.25	0.51	0.61	0.30	0.86	0.59	0.38	0.47	0.35	0.81
Control Delay	48.9	29.0	6.6	44.5	33.9	7.9	70.4	31.1	5.5	53.9	28.6	25.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.9	29.0	6.6	44.5	33.9	7.9	70.4	31.1	5.5	53.9	28.6	25.5
LOS	D	C	A	D	C	A	E	C	A	D	C	C
Approach Delay		34.9			33.1			34.6			29.8	
Approach LOS		C			C			C			C	

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 94.9	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 33.1	Intersection LOS: C
Intersection Capacity Utilization 78.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 43: Archibald Av. & Schleisman Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	393	375	115	248	703	137	248	776	215	103	440	455
Future Volume (veh/h)	393	375	115	248	703	137	248	776	215	103	440	455
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	437	417	64	276	781	75	276	862	166	114	489	384
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	574	1259	383	525	1187	364	313	1722	534	178	1522	466
Arrive On Green	0.16	0.24	0.24	0.15	0.23	0.23	0.09	0.33	0.33	0.05	0.29	0.29
Sat Flow, veh/h	3510	5187	1580	3510	5187	1589	3510	5187	1610	3510	5187	1588
Grp Volume(v), veh/h	437	417	64	276	781	75	276	862	166	114	489	384
Grp Sat Flow(s),veh/h/ln	1755	1729	1580	1755	1729	1589	1755	1729	1610	1755	1729	1588
Q Serve(g_s), s	11.2	6.2	3.0	6.8	12.9	3.6	7.3	12.5	7.2	3.0	6.9	21.2
Cycle Q Clear(g_c), s	11.2	6.2	3.0	6.8	12.9	3.6	7.3	12.5	7.2	3.0	6.9	21.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	574	1259	383	525	1187	364	313	1722	534	178	1522	466
V/C Ratio(X)	0.76	0.33	0.17	0.53	0.66	0.21	0.88	0.50	0.31	0.64	0.32	0.82
Avail Cap(c_a), veh/h	574	2384	726	525	2313	709	313	2456	762	253	2412	738
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.6	29.4	28.2	37.0	33.0	29.4	42.4	25.2	23.4	43.9	26.0	31.0
Incr Delay (d2), s/veh	9.2	0.2	0.2	3.7	0.6	0.3	23.3	0.2	0.3	1.4	0.1	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	2.5	1.1	3.1	5.2	1.3	4.0	4.8	2.6	1.3	2.7	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.9	29.5	28.4	40.7	33.6	29.7	65.7	25.4	23.8	45.3	26.1	35.3
LnGrp LOS	D	C	C	D	C	C	E	C	C	D	C	D
Approach Vol, veh/h		918			1132			1304			987	
Approach Delay, s/veh		37.7			35.1			33.8			31.9	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	37.5	18.7	28.7	13.0	33.8	20.0	27.4
Change Period (Y+Rc), s	4.6	6.2	4.6	5.8	4.6	* 6.2	4.6	5.8
Max Green Setting (Gmax), s	6.8	44.6	14.1	43.3	8.4	* 44	15.4	42.0
Max Q Clear Time (g_c+I1), s	5.0	14.5	8.8	8.2	9.3	23.2	13.2	14.9
Green Ext Time (p_c), s	0.0	6.5	0.2	2.9	0.0	4.2	0.2	5.6

Intersection Summary	
HCM 6th Ctrl Delay	34.5
HCM 6th LOS	C

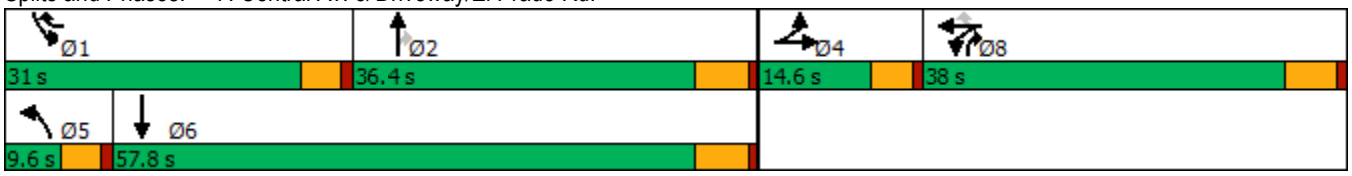
Notes

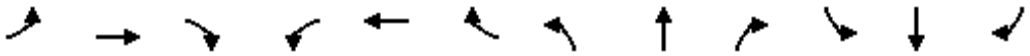
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	17	12	627	3	481	6	752	805	620	847
Future Volume (vph)	17	12	627	3	481	6	752	805	620	847
Turn Type	Split	NA	Split	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	4	4	8	8	1	5	2	8	1	6
Permitted Phases					8			2		
Detector Phase	4	4	8	8	1	5	2	8	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	34.8	34.8	9.6	9.6	27.8	34.8	9.6	24.8
Total Split (s)	14.6	14.6	38.0	38.0	31.0	9.6	36.4	38.0	31.0	57.8
Total Split (%)	12.2%	12.2%	31.7%	31.7%	25.8%	8.0%	30.3%	31.7%	25.8%	48.2%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	5.8	4.6	4.6	5.8	5.8	4.6	5.8
Lead/Lag					Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	None	Max
Act Effct Green (s)	10.2	10.2	27.7	27.7	53.7	5.1	31.3	59.0	24.8	59.0
Actuated g/C Ratio	0.09	0.09	0.26	0.26	0.50	0.05	0.29	0.55	0.23	0.55
v/c Ratio	0.12	0.13	0.83	0.79	0.58	0.08	0.79	0.87	0.90	0.34
Control Delay	52.6	39.5	58.1	53.5	12.1	57.7	44.9	21.5	58.9	16.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.6	39.5	58.1	53.5	12.1	57.7	44.9	21.5	58.9	16.3
LOS	D	D	E	D	B	E	D	C	E	B
Approach Delay		45.5		36.9			32.8			34.1
Approach LOS		D		D			C			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 108.2	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 34.5	Intersection LOS: C
Intersection Capacity Utilization 93.5%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 7: Central Av. & Driveway/El Prado Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	12	8	627	3	481	6	752	805	620	847	18
Future Volume (veh/h)	17	12	8	627	3	481	6	752	805	620	847	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	18	12	3	655	0	246	6	783	499	646	882	17
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	95	82	20	739	0	691	12	994	790	706	2520	49
Arrive On Green	0.06	0.06	0.06	0.23	0.00	0.23	0.01	0.29	0.29	0.22	0.51	0.51
Sat Flow, veh/h	1619	1390	347	3238	0	1523	1619	3420	1521	3141	4963	96
Grp Volume(v), veh/h	18	0	15	655	0	246	6	783	499	646	582	317
Grp Sat Flow(s),veh/h/ln	1619	0	1737	1619	0	1523	1619	1710	1521	1570	1638	1783
Q Serve(g_s), s	1.1	0.0	0.9	20.6	0.0	11.1	0.4	22.2	24.7	21.1	11.2	11.2
Cycle Q Clear(g_c), s	1.1	0.0	0.9	20.6	0.0	11.1	0.4	22.2	24.7	21.1	11.2	11.2
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	95	0	102	739	0	691	12	994	790	706	1663	905
V/C Ratio(X)	0.19	0.00	0.15	0.89	0.00	0.36	0.48	0.79	0.63	0.92	0.35	0.35
Avail Cap(c_a), veh/h	154	0	165	990	0	809	77	994	790	788	1663	905
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.2	0.0	47.0	39.3	0.0	18.8	52.0	34.4	18.1	39.8	15.5	15.5
Incr Delay (d2), s/veh	0.4	0.0	0.2	6.4	0.0	0.1	10.5	6.3	3.8	13.6	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.4	8.4	0.0	3.6	0.2	9.6	13.6	9.1	4.0	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.5	0.0	47.3	45.7	0.0	18.9	62.5	40.7	22.0	53.4	16.1	16.6
LnGrp LOS	D	A	D	D	A	B	E	D	C	D	B	B
Approach Vol, veh/h		33			901			1288			1545	
Approach Delay, s/veh		47.4			38.4			33.5			31.8	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	28.3	36.4		10.8	5.4	59.3		29.8				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		5.8				
Max Green Setting (Gmax), s	26.4	30.6		10.0	5.0	52.0		32.2				
Max Q Clear Time (g_c+I1), s	23.1	26.7		3.1	2.4	13.2		22.6				
Green Ext Time (p_c), s	0.5	2.3		0.0	0.0	6.1		1.4				

Intersection Summary		
HCM 6th Ctrl Delay		34.1
HCM 6th LOS		C

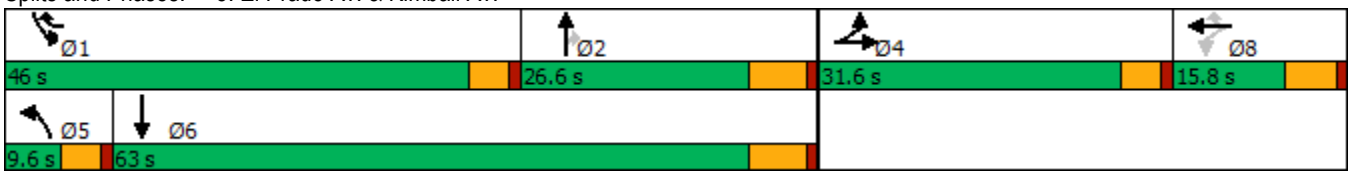
Notes

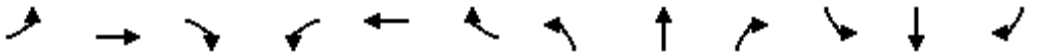
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	33	14	25	5	787	4	268	33	869	322
Future Volume (vph)	33	14	25	5	787	4	268	33	869	322
Turn Type	Split	NA	Perm	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	4	4		8	1	5	2		1	6
Permitted Phases			8		8			2		
Detector Phase	4	4	8	8	1	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	15.8	15.8	9.6	9.6	16.2	16.2	9.6	24.2
Total Split (s)	31.6	31.6	15.8	15.8	46.0	9.6	26.6	26.6	46.0	63.0
Total Split (%)	26.3%	26.3%	13.2%	13.2%	38.3%	8.0%	22.2%	22.2%	38.3%	52.5%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		5.8	4.6	4.6	6.2	6.2	4.6	6.2
Lead/Lag					Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Max	None	None	None	Max	Max
Act Effct Green (s)	13.2	13.2		10.5	49.4	5.3	19.3	19.3	43.7	69.7
Actuated g/C Ratio	0.14	0.14		0.11	0.53	0.06	0.21	0.21	0.47	0.75
v/c Ratio	0.15	0.08		0.21	0.78	0.04	0.76	0.08	0.63	0.26
Control Delay	41.0	33.7		49.6	12.8	52.8	52.7	0.4	25.9	10.6
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.0	33.7		49.6	12.8	52.8	52.7	0.4	25.9	10.6
LOS	D	C		D	B	D	D	A	C	B
Approach Delay		38.4		14.2			47.1			21.6
Approach LOS		D		B			D			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 92.6	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 22.7	Intersection LOS: C
Intersection Capacity Utilization 87.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 8: El Prado Av. & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	14	5	25	5	787	4	268	33	869	322	11
Future Volume (veh/h)	33	14	5	25	5	787	4	268	33	869	322	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	35	15	3	27	5	392	4	285	31	924	343	11
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	126	114	23	149	28	801	9	323	274	1330	1036	33
Arrive On Green	0.08	0.08	0.08	0.10	0.10	0.10	0.01	0.18	0.18	0.42	0.60	0.60
Sat Flow, veh/h	1619	1456	291	1457	270	1518	1619	1800	1525	3141	1733	56
Grp Volume(v), veh/h	35	0	18	32	0	392	4	285	31	924	0	354
Grp Sat Flow(s),veh/h/ln	1619	0	1748	1727	0	1518	1619	1800	1525	1570	0	1788
Q Serve(g_s), s	2.0	0.0	0.9	1.7	0.0	10.0	0.2	15.1	1.7	23.5	0.0	9.7
Cycle Q Clear(g_c), s	2.0	0.0	0.9	1.7	0.0	10.0	0.2	15.1	1.7	23.5	0.0	9.7
Prop In Lane	1.00		0.17	0.84		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	126	0	136	177	0	801	9	323	274	1330	0	1069
V/C Ratio(X)	0.28	0.00	0.13	0.18	0.00	0.49	0.47	0.88	0.11	0.69	0.00	0.33
Avail Cap(c_a), veh/h	447	0	483	177	0	801	83	375	318	1330	0	1069
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.5	0.0	42.0	40.2	0.0	14.8	48.5	39.1	33.6	23.0	0.0	9.9
Incr Delay (d2), s/veh	1.2	0.0	0.4	0.5	0.0	0.5	14.1	19.0	0.2	3.0	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.4	0.7	0.0	5.0	0.1	8.0	0.6	8.3	0.0	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.7	0.0	42.4	40.6	0.0	15.3	62.6	58.1	33.8	26.1	0.0	10.7
LnGrp LOS	D	A	D	D	A	B	E	E	C	C	A	B
Approach Vol, veh/h		53			424			320			1278	
Approach Delay, s/veh		43.2			17.2			55.8			21.8	
Approach LOS		D			B			E			C	

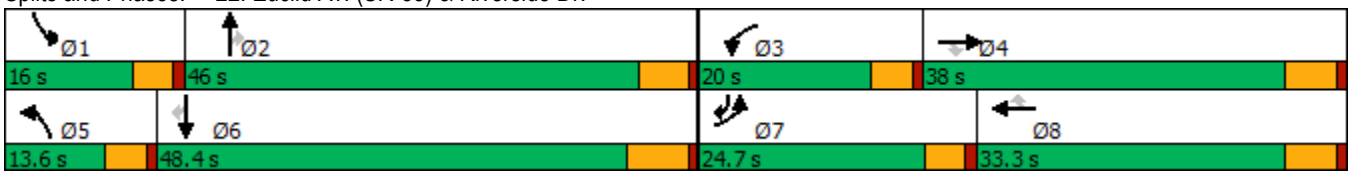
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	46.0	23.8		12.2	5.1	64.6		15.8				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		5.8				
Max Green Setting (Gmax), s	41.4	20.4		27.0	5.0	56.8		10.0				
Max Q Clear Time (g_c+I1), s	25.5	17.1		4.0	2.2	11.7		12.0				
Green Ext Time (p_c), s	1.7	0.5		0.1	0.0	2.0		0.0				

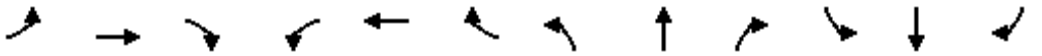
Intersection Summary			
HCM 6th Ctrl Delay		26.7	
HCM 6th LOS		C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	145	440	73	179	393	62	67	1024	232	134	899	185
Future Volume (vph)	145	440	73	179	393	62	67	1024	232	134	899	185
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	25.8	25.8	9.6	31.8	31.8	9.6	30.4	30.4	9.6	34.5	9.6
Total Split (s)	24.7	38.0	38.0	20.0	33.3	33.3	13.6	46.0	46.0	16.0	48.4	24.7
Total Split (%)	20.6%	31.7%	31.7%	16.7%	27.8%	27.8%	11.3%	38.3%	38.3%	13.3%	40.3%	20.6%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	None
Act Effct Green (s)	15.1	31.6	31.6	15.0	31.5	31.5	8.1	40.6	40.6	11.4	44.9	61.9
Actuated g/C Ratio	0.13	0.27	0.27	0.13	0.26	0.26	0.07	0.34	0.34	0.10	0.38	0.52
v/c Ratio	0.74	0.96	0.16	0.92	0.45	0.13	0.64	0.91	0.37	0.91	0.73	0.22
Control Delay	70.8	75.8	2.6	96.2	39.3	0.5	80.2	50.6	7.1	105.6	36.9	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.8	75.8	2.6	96.2	39.3	0.5	80.2	50.6	7.1	105.6	36.9	3.9
LOS	E	E	A	F	D	A	F	D	A	F	D	A
Approach Delay		66.6			51.5			44.5			39.5	
Approach LOS		E			D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 119	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 47.8	Intersection LOS: D
Intersection Capacity Utilization 90.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 22: Euclid Av. (SR-83) & Riverside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	440	73	179	393	62	67	1024	232	134	899	185
Future Volume (veh/h)	145	440	73	179	393	62	67	1024	232	134	899	185
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	151	458	51	186	409	49	70	1067	188	140	936	102
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	175	479	406	206	974	434	87	1147	511	152	1285	731
Arrive On Green	0.11	0.27	0.27	0.13	0.28	0.28	0.05	0.34	0.34	0.09	0.38	0.38
Sat Flow, veh/h	1619	1800	1525	1619	3420	1524	1619	3420	1525	1619	3420	1506
Grp Volume(v), veh/h	151	458	51	186	409	49	70	1067	188	140	936	102
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1619	1710	1524	1619	1710	1525	1619	1710	1506
Q Serve(g_s), s	11.1	30.3	3.1	13.7	11.8	2.9	5.2	36.5	11.3	10.4	28.5	4.5
Cycle Q Clear(g_c), s	11.1	30.3	3.1	13.7	11.8	2.9	5.2	36.5	11.3	10.4	28.5	4.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	175	479	406	206	974	434	87	1147	511	152	1285	731
V/C Ratio(X)	0.86	0.96	0.13	0.90	0.42	0.11	0.80	0.93	0.37	0.92	0.73	0.14
Avail Cap(c_a), veh/h	269	479	406	206	974	434	120	1147	511	152	1285	731
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.1	43.8	33.8	52.1	35.2	32.0	56.7	38.9	30.5	54.4	32.5	17.3
Incr Delay (d2), s/veh	10.5	30.4	0.1	36.5	0.3	0.1	16.6	14.4	2.0	48.7	3.7	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	17.0	1.1	7.5	4.8	1.1	2.4	16.5	4.3	6.2	12.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.6	74.1	33.9	88.6	35.5	32.1	73.2	53.3	32.5	103.0	36.1	17.7
LnGrp LOS	E	E	C	F	D	C	E	D	C	F	D	B
Approach Vol, veh/h		660			644			1325			1178	
Approach Delay, s/veh		68.6			50.6			51.4			42.5	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	47.1	20.0	38.0	11.1	52.0	17.7	40.3
Change Period (Y+Rc), s	4.6	* 6.5	4.6	5.8	4.6	6.5	4.6	5.8
Max Green Setting (Gmax), s	11.4	* 41	15.4	32.2	9.0	41.9	20.1	27.5
Max Q Clear Time (g_c+I1), s	12.4	38.5	15.7	32.3	7.2	30.5	13.1	13.8
Green Ext Time (p_c), s	0.0	1.4	0.0	0.0	0.0	4.9	0.1	2.1

Intersection Summary	
HCM 6th Ctrl Delay	51.5
HCM 6th LOS	D

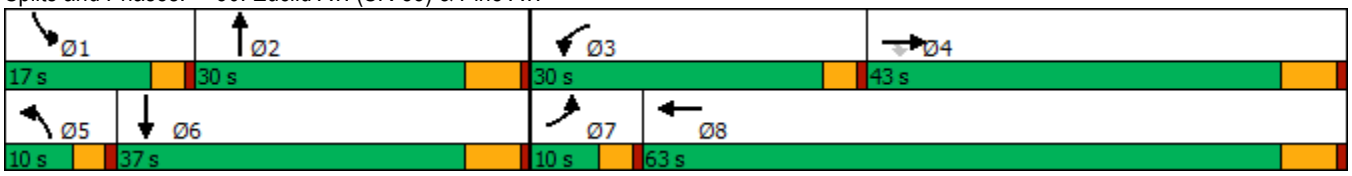
Notes

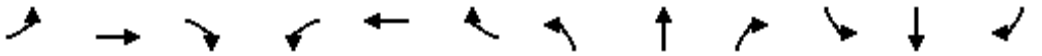
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	5	453	104	517	75	60	676	1061	82	728
Future Volume (vph)	5	453	104	517	75	60	676	1061	82	728
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Free	Prot	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases			4					Free		
Detector Phase	7	4	4	3	8	5	2		1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	9.0	43.0	43.0	9.0	45.0	9.0	11.0		9.0	29.0
Total Split (s)	10.0	43.0	43.0	30.0	63.0	10.0	30.0		17.0	37.0
Total Split (%)	8.3%	35.8%	35.8%	25.0%	52.5%	8.3%	25.0%		14.2%	30.8%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0		3.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	4.0	6.0		4.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Min		None	Min
Act Effct Green (s)	5.4	32.3	32.3	22.7	57.3	6.1	25.3	108.0	9.8	29.0
Actuated g/C Ratio	0.05	0.30	0.30	0.21	0.53	0.06	0.23	1.00	0.09	0.27
v/c Ratio	0.06	0.86	0.18	0.85	0.12	0.67	0.86	0.71	0.58	0.81
Control Delay	56.4	53.7	1.0	56.5	11.5	89.2	54.8	2.8	66.6	47.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.4	53.7	1.0	56.5	11.5	89.2	54.8	2.8	66.6	47.2
LOS	E	D	A	E	B	F	D	A	E	D
Approach Delay		44.0			48.7		25.2			49.2
Approach LOS		D			D		C			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 108	
Natural Cycle: 95	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 37.0	Intersection LOS: D
Intersection Capacity Utilization 84.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 30: Euclid Av. (SR-83) & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	453	104	517	75	34	60	676	1061	82	728	4
Future Volume (veh/h)	5	453	104	517	75	34	60	676	1061	82	728	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1600	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	5	462	0	528	77	33	61	690	0	84	743	4
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	11	530		597	586	251	76	777		105	855	5
Arrive On Green	0.01	0.29	0.00	0.20	0.49	0.49	0.05	0.23	0.00	0.06	0.25	0.25
Sat Flow, veh/h	1619	1800	1525	2956	1195	512	1619	3420	1525	1619	3488	19
Grp Volume(v), veh/h	5	462	0	528	0	110	61	690	0	84	364	383
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1478	0	1708	1619	1710	1525	1619	1710	1797
Q Serve(g_s), s	0.3	23.0	0.0	16.4	0.0	3.3	3.5	18.4	0.0	4.8	19.3	19.3
Cycle Q Clear(g_c), s	0.3	23.0	0.0	16.4	0.0	3.3	3.5	18.4	0.0	4.8	19.3	19.3
Prop In Lane	1.00		1.00	1.00		0.30	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	11	530		597	0	837	76	777		105	419	440
V/C Ratio(X)	0.47	0.87		0.88	0.00	0.13	0.81	0.89		0.80	0.87	0.87
Avail Cap(c_a), veh/h	103	705		814	0	1031	103	869		223	561	590
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.8	31.6	0.0	36.6	0.0	13.1	44.6	35.3	0.0	43.6	34.2	34.2
Incr Delay (d2), s/veh	11.8	10.2	0.0	7.2	0.0	0.1	20.2	9.6	0.0	5.3	8.8	8.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	10.8	0.0	6.1	0.0	1.1	1.8	8.1	0.0	2.0	8.3	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.5	41.8	0.0	43.8	0.0	13.2	64.8	45.0	0.0	48.8	43.0	42.6
LnGrp LOS	E	D		D	A	B	E	D		D	D	D
Approach Vol, veh/h		467	A		638			751	A		831	
Approach Delay, s/veh		42.0			38.5			46.6			43.4	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	27.4	23.1	33.8	8.4	29.1	4.6	52.3
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	13.0	24.0	26.0	37.0	6.0	31.0	6.0	57.0
Max Q Clear Time (g_c+I1), s	6.8	20.4	18.4	25.0	5.5	21.3	2.3	5.3
Green Ext Time (p_c), s	0.0	1.0	0.7	2.8	0.0	1.8	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	42.9
HCM 6th LOS	D

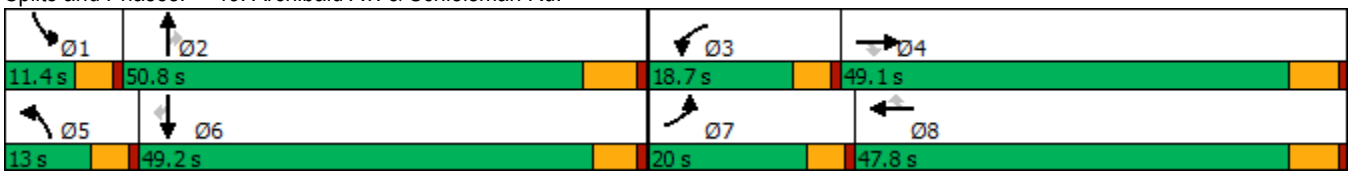
Notes

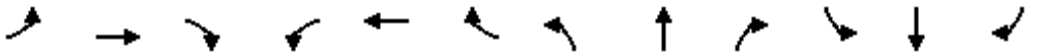
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	416	995	181	108	309	55	181	593	109	160	641	317
Future Volume (vph)	416	995	181	108	309	55	181	593	109	160	641	317
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	47.8	47.8	9.6	47.8	47.8	9.6	48.2	48.2	9.6	47.4	47.4
Total Split (s)	20.0	49.1	49.1	18.7	47.8	47.8	13.0	50.8	50.8	11.4	49.2	49.2
Total Split (%)	15.4%	37.8%	37.8%	14.4%	36.8%	36.8%	10.0%	39.1%	39.1%	8.8%	37.8%	37.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	5.2	5.2	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	6.2	6.2	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	None	None	Max	None	None	None	None	None	None	None	None
Act Effct Green (s)	15.9	27.9	27.9	14.6	26.6	26.6	8.4	22.5	22.5	7.0	22.0	22.0
Actuated g/C Ratio	0.17	0.30	0.30	0.16	0.28	0.28	0.09	0.24	0.24	0.07	0.23	0.23
v/c Ratio	0.72	0.66	0.30	0.20	0.21	0.11	0.59	0.49	0.24	0.62	0.54	0.52
Control Delay	47.3	31.4	5.5	40.9	26.6	0.7	53.3	32.0	7.0	57.0	33.2	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.3	31.4	5.5	40.9	26.6	0.7	53.3	32.0	7.0	57.0	33.2	6.7
LOS	D	C	A	D	C	A	D	C	A	E	C	A
Approach Delay		32.6			26.9			33.3			29.1	
Approach LOS		C			C			C			C	

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 94	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 31.1	Intersection LOS: C
Intersection Capacity Utilization 83.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 43: Archibald Av. & Schleisman Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	416	995	181	108	309	55	181	593	109	160	641	317
Future Volume (veh/h)	416	995	181	108	309	55	181	593	109	160	641	317
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	424	1015	103	110	315	30	185	605	74	163	654	209
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	644	1515	470	590	1434	444	263	1139	353	239	1102	341
Arrive On Green	0.18	0.29	0.29	0.17	0.28	0.28	0.08	0.22	0.22	0.07	0.21	0.21
Sat Flow, veh/h	3510	5187	1610	3510	5187	1607	3510	5187	1610	3510	5187	1603
Grp Volume(v), veh/h	424	1015	103	110	315	30	185	605	74	163	654	209
Grp Sat Flow(s),veh/h/ln	1755	1729	1610	1755	1729	1607	1755	1729	1610	1755	1729	1603
Q Serve(g_s), s	9.4	14.5	4.1	2.3	3.9	1.2	4.3	8.7	3.2	3.8	9.5	9.9
Cycle Q Clear(g_c), s	9.4	14.5	4.1	2.3	3.9	1.2	4.3	8.7	3.2	3.8	9.5	9.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	644	1515	470	590	1434	444	263	1139	353	239	1102	341
V/C Ratio(X)	0.66	0.67	0.22	0.19	0.22	0.07	0.70	0.53	0.21	0.68	0.59	0.61
Avail Cap(c_a), veh/h	644	2675	831	590	2595	804	351	2756	855	284	2706	837
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.8	26.2	22.5	30.0	23.4	22.4	37.9	28.9	26.8	38.2	29.8	29.9
Incr Delay (d2), s/veh	5.2	0.5	0.2	0.7	0.1	0.1	2.1	0.4	0.3	3.4	0.5	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	5.5	1.4	1.0	1.5	0.4	1.8	3.3	1.2	1.6	3.7	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.0	26.7	22.7	30.7	23.5	22.4	40.0	29.3	27.1	41.7	30.3	31.7
LnGrp LOS	D	C	C	C	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1542			455			864			1026	
Approach Delay, s/veh		29.3			25.1			31.4			32.4	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	24.6	18.7	30.3	10.9	24.0	20.0	29.0
Change Period (Y+Rc), s	4.6	6.2	4.6	5.8	4.6	* 6.2	4.6	5.8
Max Green Setting (Gmax), s	6.8	44.6	14.1	43.3	8.4	* 44	15.4	42.0
Max Q Clear Time (g_c+I1), s	5.8	10.7	4.3	16.5	6.3	11.9	11.4	5.9
Green Ext Time (p_c), s	0.0	4.2	0.1	7.6	0.1	5.0	0.4	2.1

Intersection Summary	
HCM 6th Ctrl Delay	30.1
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 7.1:

OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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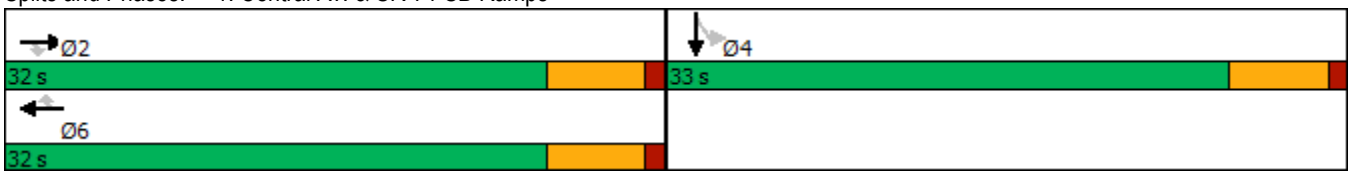
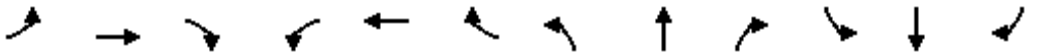
Lane Group	EBT	EBR	WBT	WBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1498	101	736	200	527	0
Future Volume (vph)	1498	101	736	200	527	0
Turn Type	NA	Perm	NA	Perm	Perm	NA
Protected Phases	2		6			4
Permitted Phases		2		6	4	
Detector Phase	2	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	22.8	22.8	15.8	15.8
Total Split (s)	32.0	32.0	32.0	32.0	33.0	33.0
Total Split (%)	49.2%	49.2%	49.2%	49.2%	50.8%	50.8%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max	Max	None	None

Intersection Summary
Cycle Length: 65
Actuated Cycle Length: 61.1
Natural Cycle: 50
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Central Av. & SR-71 SB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱↱				↰	✣	
Traffic Volume (veh/h)	0	1498	101	0	736	200	0	0	0	527	0	335
Future Volume (veh/h)	0	1498	101	0	736	200	0	0	0	527	0	335
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	0	1702	0	0	836	0				406	270	214
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2369		0	2369					617	335	265
Arrive On Green	0.00	0.46	0.00	0.00	0.46	0.00				0.34	0.34	0.34
Sat Flow, veh/h	0	5358	1610	0	5358	2834				1810	982	778
Grp Volume(v), veh/h	0	1702	0	0	836	0				406	0	484
Grp Sat Flow(s),veh/h/ln	0	1729	1610	0	1729	1417				1810	0	1760
Q Serve(g_s), s	0.0	15.2	0.0	0.0	6.0	0.0				10.9	0.0	14.3
Cycle Q Clear(g_c), s	0.0	15.2	0.0	0.0	6.0	0.0				10.9	0.0	14.3
Prop In Lane	0.00		1.00	0.00		1.00				1.00		0.44
Lane Grp Cap(c), veh/h	0	2369		0	2369					617	0	600
V/C Ratio(X)	0.00	0.72		0.00	0.35					0.66	0.00	0.81
Avail Cap(c_a), veh/h	0	2369		0	2369					858	0	835
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	12.6	0.0	0.0	10.1	0.0				16.1	0.0	17.2
Incr Delay (d2), s/veh	0.0	1.9	0.0	0.0	0.4	0.0				1.2	0.0	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.7	0.0	0.0	1.8	0.0				3.8	0.0	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	14.5	0.0	0.0	10.5	0.0				17.3	0.0	21.3
LnGrp LOS	A	B		A	B					B	A	C
Approach Vol, veh/h		1702	A		836	A					890	
Approach Delay, s/veh		14.5			10.5						19.4	
Approach LOS		B			B						B	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		32.0		25.4		32.0						
Change Period (Y+Rc), s		5.8		5.8		5.8						
Max Green Setting (Gmax), s		26.2		27.2		26.2						
Max Q Clear Time (g_c+I1), s		17.2		16.3		8.0						
Green Ext Time (p_c), s		7.4		3.2		6.8						

Intersection Summary		
HCM 6th Ctrl Delay		14.8
HCM 6th LOS		B

Notes

User approved volume balancing among the lanes for turning movement.

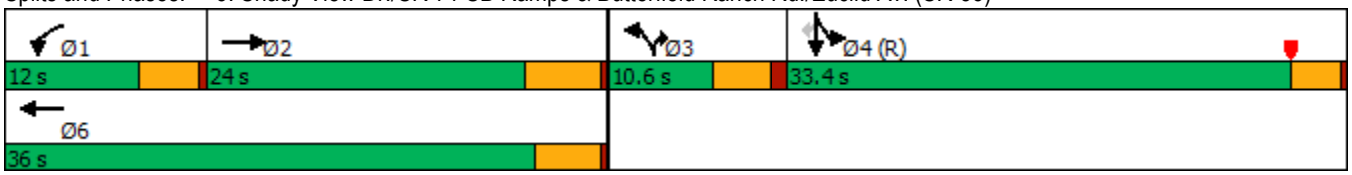
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

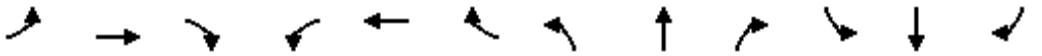
Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	735	206	299	20	305	672	28	42
Future Volume (vph)	735	206	299	20	305	672	28	42
Turn Type	NA	Prot	NA	Prot	Prot	Split	NA	Perm
Protected Phases	2	1	6	3	3	4	4	
Permitted Phases								4
Detector Phase	2	1	6	3	3	4	4	4
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	9.0	26.5	9.5	9.5	32.5	32.5	32.5
Total Split (s)	24.0	12.0	36.0	10.6	10.6	33.4	33.4	33.4
Total Split (%)	30.0%	15.0%	45.0%	13.3%	13.3%	41.8%	41.8%	41.8%
Yellow Time (s)	4.5	3.5	4.0	3.5	3.5	3.0	3.0	3.0
All-Red Time (s)	0.5	0.5	0.5	1.0	1.0	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	4.5	4.5	4.5	3.5	3.5	3.5
Lead/Lag	Lag	Lead		Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	None	None	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 4:SBTL, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 3: Shady View Dr./SR-71 SB Ramps & Butterfield Ranch Rd./Euclid Av. (SR-83)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	735	33	206	299	0	20	0	305	672	28	42
Future Volume (veh/h)	0	735	33	206	299	0	20	0	305	672	28	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	1900	0	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	750	25	210	305	0	20	0	242	707	0	27
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	829	28	181	1381		0	0	0	1850	0	823
Arrive On Green	0.00	0.23	0.23	0.03	0.13	0.00	0.00	0.00	0.00	0.51	0.00	0.51
Sat Flow, veh/h	0	3660	119	1810	3705	0		0		3619	0	1610
Grp Volume(v), veh/h	0	380	395	210	305	0		0.0		707	0	27
Grp Sat Flow(s),veh/h/ln	0	1805	1879	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	16.4	16.4	8.0	6.1	0.0				9.5	0.0	0.7
Cycle Q Clear(g_c), s	0.0	16.4	16.4	8.0	6.1	0.0				9.5	0.0	0.7
Prop In Lane	0.00		0.06	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	420	437	181	1381					1850	0	823
V/C Ratio(X)	0.00	0.90	0.91	1.16	0.22					0.38	0.00	0.03
Avail Cap(c_a), veh/h	0	429	446	181	1421					1850	0	823
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.93	0.93	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	29.8	29.8	38.7	24.2	0.0				11.9	0.0	9.7
Incr Delay (d2), s/veh	0.0	21.5	20.9	114.4	0.1	0.0				0.6	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.0	9.3	9.3	2.5	0.0				3.4	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	51.3	50.7	153.1	24.3	0.0				12.5	0.0	9.8
LnGrp LOS	A	D	D	F	C					B	A	A
Approach Vol, veh/h		775			515	A					734	
Approach Delay, s/veh		51.0			76.8						12.4	
Approach LOS		D			E						B	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	12.0	23.6		44.4		35.6						
Change Period (Y+Rc), s	4.0	5.0		3.5		* 5						
Max Green Setting (Gmax), s	8.0	19.0		29.9		* 32						
Max Q Clear Time (g_c+I1), s	10.0	18.4		11.5		8.1						
Green Ext Time (p_c), s	0.0	0.2		2.5		1.4						

Intersection Summary												
HCM 6th Ctrl Delay			43.6									
HCM 6th LOS			D									

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

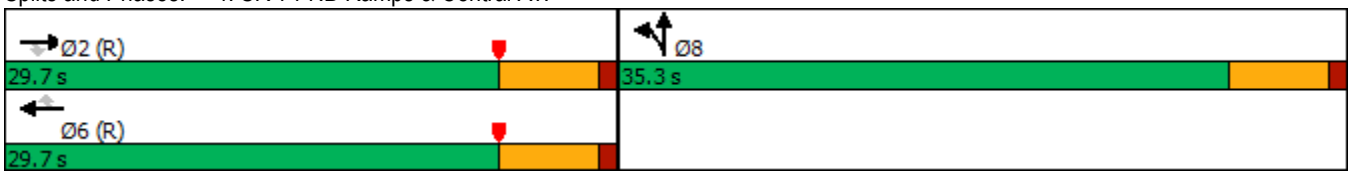
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	1197	828	867	1057	69	0
Future Volume (vph)	1197	828	867	1057	69	0
Turn Type	NA	Perm	NA	Perm	Split	NA
Protected Phases	2		6		8	8
Permitted Phases		2		6		
Detector Phase	2	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	15.8	15.8	22.8	22.8
Total Split (s)	29.7	29.7	29.7	29.7	35.3	35.3
Total Split (%)	45.7%	45.7%	45.7%	45.7%	54.3%	54.3%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 63.9 (98%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 4: SR-71 NB Ramps & Central Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰	↕				
Traffic Volume (veh/h)	0	1197	828	0	867	1057	69	0	416	0	0	0
Future Volume (veh/h)	0	1197	828	0	867	1057	69	0	416	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	0	1360	0	0	985	0	78	0	266			
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	0	3167		0	3167		382	0	340			
Arrive On Green	0.00	0.61	0.00	0.00	0.61	0.00	0.21	0.00	0.21			
Sat Flow, veh/h	0	5358	1610	0	5358	1610	1810	0	1610			
Grp Volume(v), veh/h	0	1360	0	0	985	0	78	0	266			
Grp Sat Flow(s),veh/h/ln	0	1729	1610	0	1729	1610	1810	0	1610			
Q Serve(g_s), s	0.0	9.0	0.0	0.0	5.9	0.0	2.3	0.0	10.1			
Cycle Q Clear(g_c), s	0.0	9.0	0.0	0.0	5.9	0.0	2.3	0.0	10.1			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3167		0	3167		382	0	340			
V/C Ratio(X)	0.00	0.43		0.00	0.31		0.20	0.00	0.78			
Avail Cap(c_a), veh/h	0	3167		0	3167		821	0	731			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.55	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	6.7	0.0	0.0	6.1	0.0	21.1	0.0	24.2			
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.3	0.0	0.3	0.0	4.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	2.2	0.0	0.0	1.5	0.0	0.9	0.0	3.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	6.9	0.0	0.0	6.3	0.0	21.4	0.0	28.2			
LnGrp LOS	A	A		A	A		C	A	C			
Approach Vol, veh/h		1360	A		985	A		344				
Approach Delay, s/veh		6.9			6.3			26.7				
Approach LOS		A			A			C				

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		45.5				45.5		19.5				
Change Period (Y+Rc), s		5.8				5.8		5.8				
Max Green Setting (Gmax), s		23.9				23.9		29.5				
Max Q Clear Time (g_c+I1), s		11.0				7.9		12.1				
Green Ext Time (p_c), s		7.0				5.7		1.6				

Intersection Summary		
HCM 6th Ctrl Delay	9.2	
HCM 6th LOS	A	

Notes

User approved volume balancing among the lanes for turning movement.

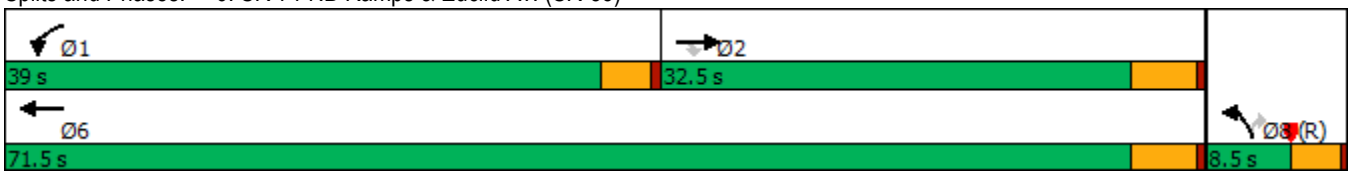
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	713	306	801	1034	45	744
Future Volume (vph)	713	306	801	1034	45	744
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	32.5	32.5	8.5	9.5	8.5	8.5
Total Split (s)	32.5	32.5	39.0	71.5	8.5	8.5
Total Split (%)	40.6%	40.6%	48.8%	89.4%	10.6%	10.6%
Yellow Time (s)	4.0	4.0	3.0	4.0	3.0	3.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	3.5	4.5	3.5	3.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 9.5 (12%), Referenced to phase 4: and 8:NBL, Start of Yellow
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 6: SR-71 NB Ramps & Euclid Av. (SR-83)





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	713	306	801	1034	45	744
Future Volume (veh/h)	713	306	801	1034	45	744
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	759	0	852	1100	48	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	959		803	2719	515	
Arrive On Green	0.09	0.00	0.44	0.75	0.15	0.00
Sat Flow, veh/h	3705	1610	1810	3705	3510	1610
Grp Volume(v), veh/h	759	0	852	1100	48	0
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805	1755	1610
Q Serve(g_s), s	16.5	0.0	35.5	8.7	0.9	0.0
Cycle Q Clear(g_c), s	16.5	0.0	35.5	8.7	0.9	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	959		803	2719	515	
V/C Ratio(X)	0.79		1.06	0.40	0.09	
Avail Cap(c_a), veh/h	1264		803	3023	515	
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.35	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	34.3	0.0	22.3	3.5	29.5	0.0
Incr Delay (d2), s/veh	0.8	0.0	49.2	0.1	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	0.0	23.0	1.2	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	35.1	0.0	71.5	3.6	29.9	0.0
LnGrp LOS	D		F	A	C	
Approach Vol, veh/h	759	A		1952	48	A
Approach Delay, s/veh	35.1			33.2	29.9	
Approach LOS	D			C	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	39.0	25.8				64.8	15.2
Change Period (Y+Rc), s	3.5	4.5				4.5	3.5
Max Green Setting (Gmax), s	35.5	28.0				67.0	5.0
Max Q Clear Time (g_c+I1), s	37.5	18.5				10.7	2.9
Green Ext Time (p_c), s	0.0	2.8				8.6	0.0

Intersection Summary		
HCM 6th Ctrl Delay		33.7
HCM 6th LOS		C

Notes

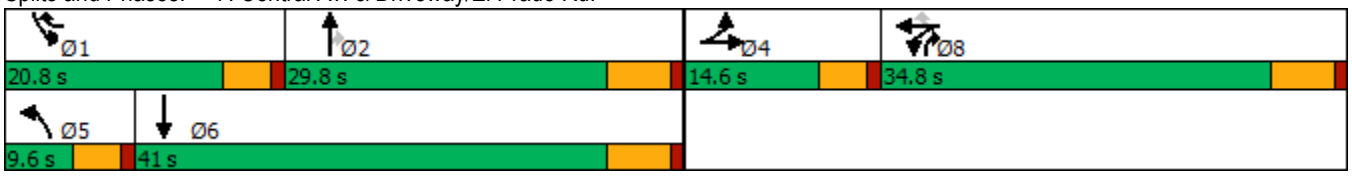
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

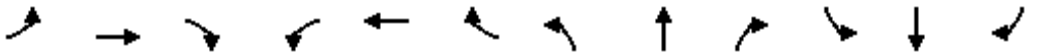
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	2	6	829	4	552	2	865	562	275	739
Future Volume (vph)	2	6	829	4	552	2	865	562	275	739
Turn Type	Split	NA	Split	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	4	4	8	8	1	5	2	8	1	6
Permitted Phases					8			2		
Detector Phase	4	4	8	8	1	5	2	8	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	34.8	34.8	9.6	9.6	27.8	34.8	9.6	24.8
Total Split (s)	14.6	14.6	34.8	34.8	20.8	9.6	29.8	34.8	20.8	41.0
Total Split (%)	14.6%	14.6%	34.8%	34.8%	20.8%	9.6%	29.8%	34.8%	20.8%	41.0%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	5.8	4.6	4.6	5.8	5.8	4.6	5.8
Lead/Lag					Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	None	Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 87.3
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Central Av. & Driveway/El Prado Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	6	1	829	4	552	2	865	562	275	739	11
Future Volume (veh/h)	2	6	1	829	4	552	2	865	562	275	739	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	2	6	0	849	0	346	2	883	399	281	754	8
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	33	36	0	939	0	722	4	928	847	297	2265	24
Arrive On Green	0.02	0.02	0.00	0.29	0.00	0.29	0.00	0.27	0.27	0.18	0.45	0.45
Sat Flow, veh/h	1619	1800	0	3238	0	1525	1619	3420	1490	1619	5012	53
Grp Volume(v), veh/h	2	6	0	849	0	346	2	883	399	281	493	269
Grp Sat Flow(s),veh/h/ln	1619	1800	0	1619	0	1525	1619	1710	1490	1619	1638	1789
Q Serve(g_s), s	0.1	0.3	0.0	22.3	0.0	13.7	0.1	22.4	14.2	15.2	8.6	8.6
Cycle Q Clear(g_c), s	0.1	0.3	0.0	22.3	0.0	13.7	0.1	22.4	14.2	15.2	8.6	8.6
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	33	36	0	939	0	722	4	928	847	297	1481	809
V/C Ratio(X)	0.06	0.17	0.00	0.90	0.00	0.48	0.46	0.95	0.47	0.95	0.33	0.33
Avail Cap(c_a), veh/h	183	204	0	1062	0	780	92	928	847	297	1481	809
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.5	42.6	0.0	30.2	0.0	15.9	44.0	31.6	11.6	35.7	15.6	15.6
Incr Delay (d2), s/veh	0.3	0.8	0.0	9.4	0.0	0.2	25.0	19.8	1.9	37.9	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.0	9.1	0.0	4.1	0.1	11.1	8.3	8.7	3.0	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.8	43.4	0.0	39.6	0.0	16.1	69.0	51.5	13.5	73.6	16.2	16.7
LnGrp LOS	D	D	A	D	A	B	E	D	B	E	B	B
Approach Vol, veh/h		8			1195			1284			1043	
Approach Delay, s/veh		43.2			32.8			39.7			31.8	
Approach LOS		D			C			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.8	29.8		6.4	4.8	45.8		31.4				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		5.8				
Max Green Setting (Gmax), s	16.2	24.0		10.0	5.0	35.2		29.0				
Max Q Clear Time (g_c+I1), s	17.2	24.4		2.3	2.1	10.6		24.3				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	4.6		1.3				

Intersection Summary			
HCM 6th Ctrl Delay		35.0	
HCM 6th LOS		D	

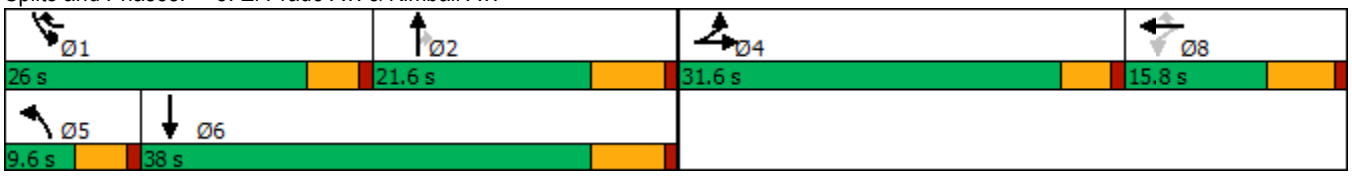
Notes

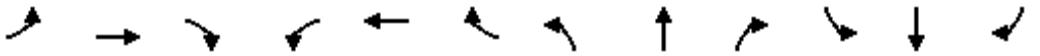
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	23	4	32	16	843	6	290	31	445	249
Future Volume (vph)	23	4	32	16	843	6	290	31	445	249
Turn Type	Split	NA	Perm	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	4	4		8	1	5	2		1	6
Permitted Phases			8		8			2		
Detector Phase	4	4	8	8	1	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	15.8	15.8	9.6	9.6	16.2	16.2	9.6	24.2
Total Split (s)	31.6	31.6	15.8	15.8	26.0	9.6	21.6	21.6	26.0	38.0
Total Split (%)	33.3%	33.3%	16.6%	16.6%	27.4%	10.1%	22.7%	22.7%	27.4%	40.0%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		5.8	4.6	4.6	6.2	6.2	4.6	6.2
Lead/Lag					Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary
Cycle Length: 95
Actuated Cycle Length: 69.2
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: El Prado Av. & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	4	3	32	16	843	6	290	31	445	249	40
Future Volume (veh/h)	23	4	3	32	16	843	6	290	31	445	249	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	24	4	2	34	17	490	6	305	33	468	262	39
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	101	71	35	160	80	660	13	382	324	478	1490	219
Arrive On Green	0.06	0.06	0.06	0.14	0.14	0.14	0.01	0.21	0.21	0.30	0.50	0.50
Sat Flow, veh/h	1619	1132	566	1161	581	1525	1619	1800	1525	1619	2982	438
Grp Volume(v), veh/h	24	0	6	51	0	490	6	305	33	468	149	152
Grp Sat Flow(s),veh/h/ln	1619	0	1698	1742	0	1525	1619	1800	1525	1619	1710	1710
Q Serve(g_s), s	1.0	0.0	0.2	1.9	0.0	10.0	0.3	11.7	1.3	20.8	3.5	3.5
Cycle Q Clear(g_c), s	1.0	0.0	0.2	1.9	0.0	10.0	0.3	11.7	1.3	20.8	3.5	3.5
Prop In Lane	1.00		0.33	0.67		1.00	1.00		1.00	1.00		0.26
Lane Grp Cap(c), veh/h	101	0	106	240	0	660	13	382	324	478	854	854
V/C Ratio(X)	0.24	0.00	0.06	0.21	0.00	0.74	0.47	0.80	0.10	0.98	0.17	0.18
Avail Cap(c_a), veh/h	603	0	632	240	0	660	112	382	324	478	854	854
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.4	0.0	32.0	27.8	0.0	17.2	35.8	27.1	23.0	25.4	10.0	10.0
Incr Delay (d2), s/veh	1.2	0.0	0.2	0.4	0.0	4.5	9.8	15.9	0.6	35.7	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.1	0.8	0.0	6.5	0.1	6.1	0.5	11.6	1.1	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.5	0.0	32.2	28.2	0.0	21.7	45.6	42.9	23.6	61.1	10.4	10.4
LnGrp LOS	C	A	C	C	A	C	D	D	C	E	B	B
Approach Vol, veh/h		30			541			344			769	
Approach Delay, s/veh		33.3			22.3			41.1			41.2	
Approach LOS		C			C			D			D	

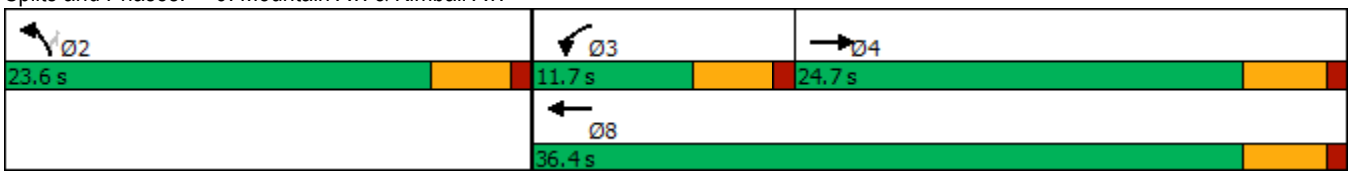
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	26.0	21.6		9.1	5.2	42.4		15.8				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		5.8				
Max Green Setting (Gmax), s	21.4	15.4		27.0	5.0	31.8		10.0				
Max Q Clear Time (g_c+I1), s	22.8	13.7		3.0	2.3	5.5		12.0				
Green Ext Time (p_c), s	0.0	0.3		0.1	0.0	1.5		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		35.0	
HCM 6th LOS		C	

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	374	70	795	83	22
Future Volume (vph)	374	70	795	83	22
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	4	3	8	2	
Permitted Phases					2
Detector Phase	4	3	8	2	2
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	24.7	9.6	14.7	23.6	23.6
Total Split (s)	24.7	11.7	36.4	23.6	23.6
Total Split (%)	41.2%	19.5%	60.7%	39.3%	39.3%
Yellow Time (s)	3.7	3.6	3.7	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.6	4.7	4.6	4.6
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	Max	None	Max	None	None

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 50
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 9: Mountain Av. & Kimball Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	374	89	70	795	83	22
Future Volume (veh/h)	374	89	70	795	83	22
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1800	1800	1700	1800	1700	1800
Adj Flow Rate, veh/h	394	83	74	837	87	21
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1380	288	105	2227	255	241
Arrive On Green	0.49	0.49	0.06	0.65	0.16	0.16
Sat Flow, veh/h	2895	585	1619	3510	1619	1525
Grp Volume(v), veh/h	239	238	74	837	87	21
Grp Sat Flow(s),veh/h/ln	1710	1680	1619	1710	1619	1525
Q Serve(g_s), s	4.0	4.1	2.2	5.5	2.3	0.6
Cycle Q Clear(g_c), s	4.0	4.1	2.2	5.5	2.3	0.6
Prop In Lane		0.35	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	841	826	105	2227	255	241
V/C Ratio(X)	0.28	0.29	0.70	0.38	0.34	0.09
Avail Cap(c_a), veh/h	841	826	236	2227	632	595
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.3	7.3	22.3	3.9	18.2	17.5
Incr Delay (d2), s/veh	0.8	0.9	3.2	0.5	0.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.1	0.8	0.8	0.8	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.2	8.2	25.5	4.4	19.0	17.7
LnGrp LOS	A	A	C	A	B	B
Approach Vol, veh/h	477			911	108	
Approach Delay, s/veh	8.2			6.1	18.8	
Approach LOS	A			A	B	

Timer - Assigned Phs	2	3	4	8
Phs Duration (G+Y+Rc), s	12.3	7.8	28.6	36.4
Change Period (Y+Rc), s	4.6	4.6	* 4.7	* 4.7
Max Green Setting (Gmax), s	19.0	7.1	* 20	* 32
Max Q Clear Time (g_c+I1), s	4.3	4.2	6.1	7.5
Green Ext Time (p_c), s	0.2	0.0	2.2	5.6

Intersection Summary	
HCM 6th Ctrl Delay	7.7
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	8.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	56	189	11	5	40	5
Future Vol, veh/h	56	189	11	5	40	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	68	230	13	6	49	6

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	120	16	0	0	19	0
Stage 1	16	-	-	-	-	-
Stage 2	104	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	880	1069	-	-	1611	-
Stage 1	1012	-	-	-	-	-
Stage 2	925	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	854	1069	-	-	1611	-
Mov Cap-2 Maneuver	810	-	-	-	-	-
Stage 1	1012	-	-	-	-	-
Stage 2	897	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	6.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	810	1069	1611	-
HCM Lane V/C Ratio	-	-	0.084	0.216	0.03	-
HCM Control Delay (s)	-	-	9.9	9.3	7.3	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0.8	0.1	-

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	54	275	4	12	118
Future Vol, veh/h	7	54	275	4	12	118
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	59	299	4	13	128

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	455	301	0	0	303	0
Stage 1	301	-	-	-	-	-
Stage 2	154	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	567	743	-	-	1269	-
Stage 1	755	-	-	-	-	-
Stage 2	879	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	561	743	-	-	1269	-
Mov Cap-2 Maneuver	561	-	-	-	-	-
Stage 1	755	-	-	-	-	-
Stage 2	869	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.5	0	0.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	716	1269	-
HCM Lane V/C Ratio	-	-	0.093	0.01	-
HCM Control Delay (s)	-	-	10.5	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection	
Intersection Delay, s/veh	10.2
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	339	243	0
Future Vol, veh/h	0	0	0	339	243	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	373	267	0
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	0	9.8	10.7
HCM LOS	-	A	B

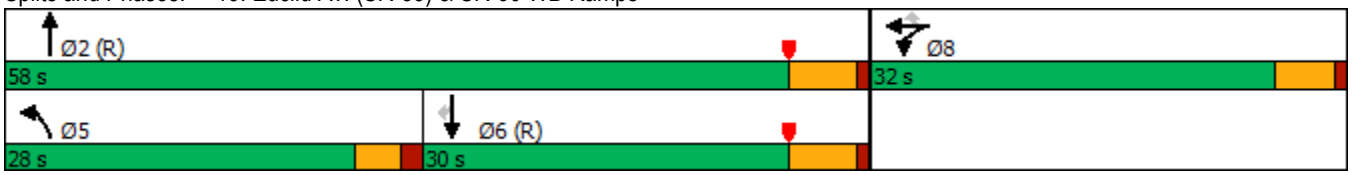
Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	100%
Vol Thru, %	100%	0%	0%
Vol Right, %	0%	100%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	0	339	243
LT Vol	0	0	243
Through Vol	0	0	0
RT Vol	0	339	0
Lane Flow Rate	0	373	267
Geometry Grp	1	1	1
Degree of Util (X)	0	0.413	0.361
Departure Headway (Hd)	4.976	3.988	4.866
Convergence, Y/N	Yes	Yes	Yes
Cap	0	905	737
Service Time	3.019	2.006	2.913
HCM Lane V/C Ratio	0	0.412	0.362
HCM Control Delay	8	9.8	10.7
HCM Lane LOS	N	A	B
HCM 95th-tile Q	0	2	1.6

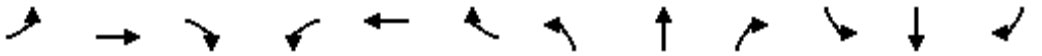
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	661	6	433	402	961	1011	498
Future Volume (vph)	661	6	433	402	961	1011	498
Turn Type	Split	NA	Perm	Prot	NA	NA	Perm
Protected Phases	8	8		5	2	6	
Permitted Phases			8				6
Detector Phase	8	8	8	5	2	6	6
Switch Phase							
Minimum Initial (s)	6.0	6.0	6.0	5.0	10.0	10.0	10.0
Minimum Split (s)	11.0	11.0	11.0	9.5	22.5	22.5	22.5
Total Split (s)	32.0	32.0	32.0	28.0	58.0	30.0	30.0
Total Split (%)	35.6%	35.6%	35.6%	31.1%	64.4%	33.3%	33.3%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.5	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.5	5.5	5.5	5.5
Lead/Lag				Lead		Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 63 (70%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 19: Euclid Av. (SR-83) & SR-60 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	661	6	433	402	961	0	0	1011	498
Future Volume (veh/h)	0	0	0	661	6	433	402	961	0	0	1011	498
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				781	0	163	428	1022	0	0	1076	302
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				883	0	393	450	2308	0	0	1229	548
Arrive On Green				0.24	0.00	0.24	0.50	1.00	0.00	0.00	0.34	0.34
Sat Flow, veh/h				3619	0	1610	1810	3705	0	0	3705	1610
Grp Volume(v), veh/h				781	0	163	428	1022	0	0	1076	302
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1810	1805	0	0	1805	1610
Q Serve(g_s), s				18.7	0.0	7.7	20.3	0.0	0.0	0.0	25.2	13.7
Cycle Q Clear(g_c), s				18.7	0.0	7.7	20.3	0.0	0.0	0.0	25.2	13.7
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				883	0	393	450	2308	0	0	1229	548
V/C Ratio(X)				0.88	0.00	0.41	0.95	0.44	0.00	0.00	0.88	0.55
Avail Cap(c_a), veh/h				1086	0	483	472	2308	0	0	1229	548
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.39	0.39	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				32.8	0.0	28.6	22.1	0.0	0.0	0.0	27.9	24.1
Incr Delay (d2), s/veh				6.7	0.0	0.3	14.8	0.2	0.0	0.0	8.9	3.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.5	0.0	2.8	7.1	0.1	0.0	0.0	11.6	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				39.5	0.0	28.9	36.9	0.2	0.0	0.0	36.8	28.0
LnGrp LOS				D	A	C	D	A	A	A	D	C
Approach Vol, veh/h					944			1450			1378	
Approach Delay, s/veh					37.7			11.1			34.9	
Approach LOS					D			B			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	63.0		26.9	36.1		27.0						
Change Period (Y+Rc), s	5.5		4.5	5.5		5.0						
Max Green Setting (Gmax), s	52.5		23.5	24.5		27.0						
Max Q Clear Time (g_c+I1), s	2.0		22.3	27.2		20.7						
Green Ext Time (p_c), s	13.2		0.1	0.0		1.2						

Intersection Summary		
HCM 6th Ctrl Delay	26.4	
HCM 6th LOS	C	

Notes

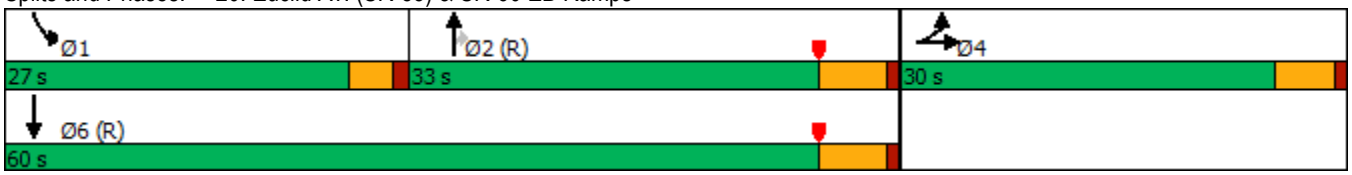
User approved volume balancing among the lanes for turning movement.

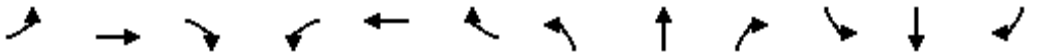
Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	428	2	935	713	385	1287
Future Volume (vph)	428	2	935	713	385	1287
Turn Type	Split	NA	NA	Perm	Prot	NA
Protected Phases	4	4	2		1	6
Permitted Phases				2		
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	6.0	6.0	10.0	10.0	5.0	10.0
Minimum Split (s)	11.0	11.0	22.5	22.5	9.0	22.5
Total Split (s)	30.0	30.0	33.0	33.0	27.0	60.0
Total Split (%)	33.3%	33.3%	36.7%	36.7%	30.0%	66.7%
Yellow Time (s)	4.0	4.0	4.5	4.5	3.0	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.5	5.5	4.0	5.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Min	C-Min	None	C-Min

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 20: Euclid Av. (SR-83) & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	428	2	393	0	0	0	0	935	713	385	1287	0
Future Volume (veh/h)	428	2	393	0	0	0	0	935	713	385	1287	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	406	65	359				0	984	552	405	1355	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	497	69	384				0	1168	507	435	2197	0
Arrive On Green	0.27	0.27	0.27				0.00	0.32	0.32	0.32	0.81	0.00
Sat Flow, veh/h	1810	253	1396				0	3705	1566	1810	3705	0
Grp Volume(v), veh/h	406	0	424				0	984	552	405	1355	0
Grp Sat Flow(s),veh/h/ln	1810	0	1649				0	1805	1566	1810	1805	0
Q Serve(g_s), s	18.9	0.0	22.6				0.0	22.8	29.1	19.5	12.9	0.0
Cycle Q Clear(g_c), s	18.9	0.0	22.6				0.0	22.8	29.1	19.5	12.9	0.0
Prop In Lane	1.00		0.85				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	497	0	453				0	1168	507	435	2197	0
V/C Ratio(X)	0.82	0.00	0.94				0.00	0.84	1.09	0.93	0.62	0.00
Avail Cap(c_a), veh/h	503	0	458				0	1168	507	462	2197	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.71	0.71	0.21	0.21	0.00
Uniform Delay (d), s/veh	30.5	0.0	31.9				0.0	28.3	30.4	29.9	4.6	0.0
Incr Delay (d2), s/veh	9.3	0.0	26.2				0.0	5.4	60.4	7.3	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	0.0	11.6				0.0	10.1	18.7	8.1	2.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.9	0.0	58.1				0.0	33.7	90.8	37.2	4.9	0.0
LnGrp LOS	D	A	E				A	C	F	D	A	A
Approach Vol, veh/h		830						1536			1760	
Approach Delay, s/veh		49.2						54.2			12.3	
Approach LOS		D						D			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	25.6	34.6		29.7		60.3
Change Period (Y+Rc), s	4.0	5.5		5.0		5.5
Max Green Setting (Gmax), s	23.0	27.5		25.0		54.5
Max Q Clear Time (g_c+I1), s	21.5	31.1		24.6		14.9
Green Ext Time (p_c), s	0.1	0.0		0.1		18.5

Intersection Summary		
HCM 6th Ctrl Delay		35.3
HCM 6th LOS		D

Notes

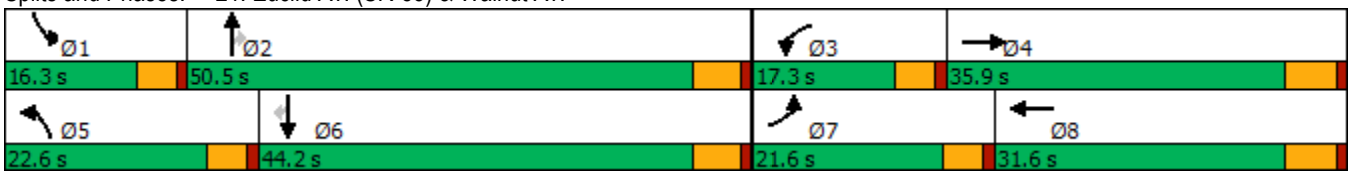
User approved volume balancing among the lanes for turning movement.

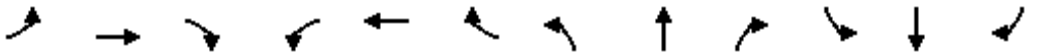
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	120	306	76	326	133	1261	48	159	1325	63
Future Volume (vph)	120	306	76	326	133	1261	48	159	1325	63
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.8	9.6	29.8	9.6	27.4	27.4	9.6	29.4	29.4
Total Split (s)	21.6	35.9	17.3	31.6	22.6	50.5	50.5	16.3	44.2	44.2
Total Split (%)	18.0%	29.9%	14.4%	26.3%	18.8%	42.1%	42.1%	13.6%	36.8%	36.8%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 109.4
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 21: Euclid Av. (SR-83) & Walnut Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	306	117	76	326	216	133	1261	48	159	1325	63
Future Volume (veh/h)	120	306	117	76	326	216	133	1261	48	159	1325	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1600	1800	1800
Adj Flow Rate, veh/h	126	322	87	80	343	187	140	1327	33	167	1395	45
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	152	606	161	100	418	224	167	2153	668	222	2015	625
Arrive On Green	0.09	0.23	0.23	0.06	0.19	0.19	0.10	0.44	0.44	0.08	0.41	0.41
Sat Flow, veh/h	1619	2671	711	1619	2150	1149	1619	4914	1524	2956	4914	1524
Grp Volume(v), veh/h	126	204	205	80	271	259	140	1327	33	167	1395	45
Grp Sat Flow(s),veh/h/ln	1619	1710	1672	1619	1710	1589	1619	1638	1524	1478	1638	1524
Q Serve(g_s), s	7.9	10.8	11.1	5.0	15.6	16.1	8.7	21.4	1.3	5.7	24.1	1.8
Cycle Q Clear(g_c), s	7.9	10.8	11.1	5.0	15.6	16.1	8.7	21.4	1.3	5.7	24.1	1.8
Prop In Lane	1.00		0.43	1.00		0.72	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	152	388	379	100	333	309	167	2153	668	222	2015	625
V/C Ratio(X)	0.83	0.53	0.54	0.80	0.82	0.84	0.84	0.62	0.05	0.75	0.69	0.07
Avail Cap(c_a), veh/h	267	500	489	200	429	398	283	2153	668	336	2015	625
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.8	34.9	35.0	47.7	39.7	39.9	45.3	22.3	16.6	46.7	25.0	18.5
Incr Delay (d2), s/veh	4.3	1.1	1.2	5.5	9.2	11.6	4.2	1.3	0.1	1.9	2.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	4.4	4.4	2.1	7.1	7.0	3.6	8.0	0.4	2.1	9.2	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.1	36.0	36.2	53.2	48.9	51.5	49.5	23.6	16.7	48.6	27.0	18.7
LnGrp LOS	D	D	D	D	D	D	D	C	B	D	C	B
Approach Vol, veh/h		535			610			1500			1607	
Approach Delay, s/veh		39.4			50.5			25.9			29.0	
Approach LOS		D			D			C			C	

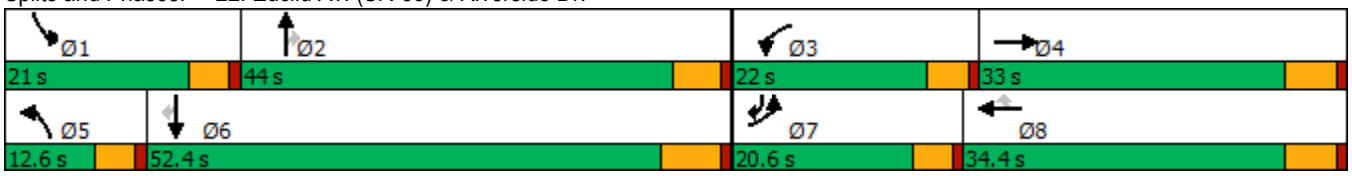
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.3	50.5	10.9	29.2	15.2	47.6	14.3	25.8
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	11.7	45.1	12.7	30.1	18.0	38.8	17.0	25.8
Max Q Clear Time (g_c+I1), s	7.7	23.4	7.0	13.1	10.7	26.1	9.9	18.1
Green Ext Time (p_c), s	0.1	9.7	0.0	2.0	0.1	7.4	0.1	1.8

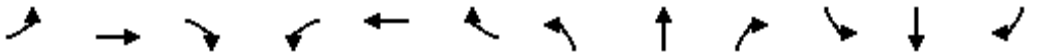
Intersection Summary	
HCM 6th Ctrl Delay	32.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	162	330	200	517	122	75	1035	166	184	1128	161
Future Volume (vph)	162	330	200	517	122	75	1035	166	184	1128	161
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4	3	8		5	2		1	6	7
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	25.8	9.6	31.8	31.8	9.6	30.4	30.4	9.6	34.5	9.6
Total Split (s)	20.6	33.0	22.0	34.4	34.4	12.6	44.0	44.0	21.0	52.4	20.6
Total Split (%)	17.2%	27.5%	18.3%	28.7%	28.7%	10.5%	36.7%	36.7%	17.5%	43.7%	17.2%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 119.2
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Euclid Av. (SR-83) & Riverside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	162	330	63	200	517	122	75	1035	166	184	1128	161
Future Volume (veh/h)	162	330	63	200	517	122	75	1035	166	184	1128	161
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	171	347	50	211	544	99	79	1089	135	194	1187	110
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	195	346	50	233	850	379	97	1092	487	217	1345	783
Arrive On Green	0.12	0.22	0.22	0.14	0.25	0.25	0.06	0.32	0.32	0.13	0.39	0.39
Sat Flow, veh/h	1619	1538	222	1619	3420	1525	1619	3420	1525	1619	3420	1524
Grp Volume(v), veh/h	171	0	397	211	544	99	79	1089	135	194	1187	110
Grp Sat Flow(s),veh/h/ln	1619	0	1760	1619	1710	1525	1619	1710	1525	1619	1710	1524
Q Serve(g_s), s	12.6	0.0	27.2	15.5	17.2	6.3	5.8	38.5	8.0	14.3	39.0	4.6
Cycle Q Clear(g_c), s	12.6	0.0	27.2	15.5	17.2	6.3	5.8	38.5	8.0	14.3	39.0	4.6
Prop In Lane	1.00		0.13	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	195	0	396	233	850	379	97	1092	487	217	1345	783
V/C Ratio(X)	0.88	0.00	1.00	0.91	0.64	0.26	0.81	1.00	0.28	0.89	0.88	0.14
Avail Cap(c_a), veh/h	214	0	396	233	850	379	107	1092	487	220	1345	783
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.3	0.0	46.9	51.0	40.6	36.5	56.1	41.1	30.7	51.5	34.1	15.4
Incr Delay (d2), s/veh	27.8	0.0	45.9	34.1	1.6	0.4	30.2	26.7	1.4	32.4	8.7	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	0.0	16.5	8.3	7.2	2.3	3.1	19.1	3.0	7.6	17.1	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.1	0.0	92.8	85.0	42.2	36.9	86.3	67.8	32.2	83.9	42.7	15.8
LnGrp LOS	F	A	F	F	D	D	F	E	C	F	D	B
Approach Vol, veh/h		568			854			1303			1491	
Approach Delay, s/veh		89.0			52.2			65.2			46.1	
Approach LOS		F			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.8	45.1	22.0	33.0	11.9	54.1	19.1	35.9
Change Period (Y+Rc), s	4.6	* 6.5	4.6	5.8	4.6	6.5	4.6	5.8
Max Green Setting (Gmax), s	16.4	* 39	17.4	27.2	8.0	45.9	16.0	28.6
Max Q Clear Time (g_c+I1), s	16.3	40.5	17.5	29.2	7.8	41.0	14.6	19.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	3.2	0.0	2.5

Intersection Summary	
HCM 6th Ctrl Delay	59.0
HCM 6th LOS	E

Notes

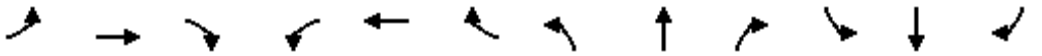
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	110	175	44	75	160	52	1107	136	59	1211	98
Future Volume (vph)	110	175	44	75	160	52	1107	136	59	1211	98
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	28.8	28.8	28.8	33.8	33.8	9.6	24.2	24.2	9.6	31.5	31.5
Total Split (s)	44.0	44.0	44.0	44.0	44.0	15.0	60.0	60.0	16.0	61.0	61.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	12.5%	50.0%	50.0%	13.3%	50.8%	50.8%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	3.6	4.2	4.2	3.6	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8		5.8	4.6	5.2	5.2	4.6	6.5	6.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 104.4
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: Euclid Av. (SR-83) & Chino Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	175	44	75	160	54	52	1107	136	59	1211	98
Future Volume (veh/h)	110	175	44	75	160	54	52	1107	136	59	1211	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	117	186	31	80	170	45	55	1178	121	63	1288	73
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	225	463	392	116	212	51	68	1815	810	79	1837	802
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.04	0.53	0.53	0.05	0.54	0.54
Sat Flow, veh/h	1119	1800	1524	278	826	199	1619	3420	1525	1619	3420	1494
Grp Volume(v), veh/h	117	186	31	295	0	0	55	1178	121	63	1288	73
Grp Sat Flow(s),veh/h/ln	1119	1800	1524	1303	0	0	1619	1710	1525	1619	1710	1494
Q Serve(g_s), s	0.0	8.8	1.6	14.4	0.0	0.0	3.5	25.5	4.2	4.0	28.9	2.5
Cycle Q Clear(g_c), s	21.7	8.8	1.6	23.2	0.0	0.0	3.5	25.5	4.2	4.0	28.9	2.5
Prop In Lane	1.00		1.00	0.27		0.15	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	225	463	392	379	0	0	68	1815	810	79	1837	802
V/C Ratio(X)	0.52	0.40	0.08	0.78	0.00	0.00	0.80	0.65	0.15	0.80	0.70	0.09
Avail Cap(c_a), veh/h	351	666	564	553	0	0	163	1815	810	179	1837	802
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.6	31.8	29.1	38.0	0.0	0.0	49.0	17.3	12.3	48.6	17.7	11.6
Incr Delay (d2), s/veh	1.9	0.6	0.1	4.3	0.0	0.0	8.0	1.8	0.4	6.9	2.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	3.8	0.6	7.3	0.0	0.0	1.5	8.9	1.3	1.7	10.1	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.4	32.3	29.2	42.3	0.0	0.0	57.0	19.2	12.7	55.5	20.0	11.9
LnGrp LOS	D	C	C	D	A	A	E	B	B	E	C	B
Approach Vol, veh/h		334			295			1354			1424	
Approach Delay, s/veh		34.2			42.3			20.1			21.2	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.6	61.3		32.3	9.0	62.0		32.3				
Change Period (Y+Rc), s	4.6	* 6.5		5.8	4.6	6.5		5.8				
Max Green Setting (Gmax), s	11.4	* 55		38.2	10.4	54.5		38.2				
Max Q Clear Time (g_c+I1), s	6.0	27.5		23.7	5.5	30.9		25.2				
Green Ext Time (p_c), s	0.0	8.9		1.2	0.0	9.3		1.3				

Intersection Summary			
HCM 6th Ctrl Delay		23.9	
HCM 6th LOS		C	

Notes

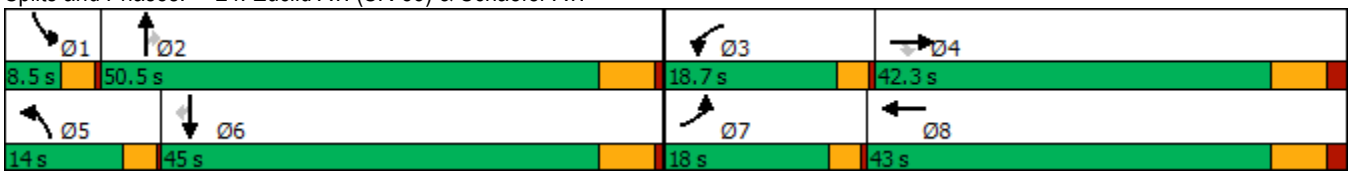
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

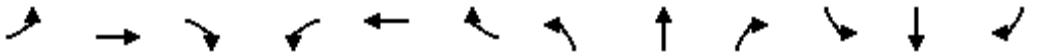
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	162	78	67	149	188	111	1072	37	31	1118	129
Future Volume (vph)	162	78	67	149	188	111	1072	37	31	1118	129
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.5	42.0	42.0	13.5	43.0	8.5	33.0	33.0	8.5	28.0	28.0
Total Split (s)	18.0	42.3	42.3	18.7	43.0	14.0	50.5	50.5	8.5	45.0	45.0
Total Split (%)	15.0%	35.3%	35.3%	15.6%	35.8%	11.7%	42.1%	42.1%	7.1%	37.5%	37.5%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	7.0	7.0	3.5	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 102.3
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Euclid Av. (SR-83) & Schaefer Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	162	78	67	149	188	12	111	1072	37	31	1118	129
Future Volume (veh/h)	162	78	67	149	188	12	111	1072	37	31	1118	129
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	174	84	53	160	202	11	119	1153	30	33	1202	105
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	205	297	252	191	264	14	146	1571	701	51	1370	610
Arrive On Green	0.13	0.16	0.16	0.12	0.16	0.16	0.09	0.46	0.46	0.03	0.40	0.40
Sat Flow, veh/h	1619	1800	1525	1619	1691	92	1619	3420	1525	1619	3420	1522
Grp Volume(v), veh/h	174	84	53	160	0	213	119	1153	30	33	1202	105
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1619	0	1783	1619	1710	1525	1619	1710	1522
Q Serve(g_s), s	9.3	3.6	2.7	8.5	0.0	10.1	6.4	24.3	1.0	1.8	28.7	3.9
Cycle Q Clear(g_c), s	9.3	3.6	2.7	8.5	0.0	10.1	6.4	24.3	1.0	1.8	28.7	3.9
Prop In Lane	1.00		1.00	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	205	297	252	191	0	278	146	1571	701	51	1370	610
V/C Ratio(X)	0.85	0.28	0.21	0.84	0.00	0.77	0.82	0.73	0.04	0.65	0.88	0.17
Avail Cap(c_a), veh/h	266	720	610	279	0	727	193	1723	769	92	1510	672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	32.3	31.9	38.1	0.0	35.7	39.5	19.5	13.2	42.3	24.5	17.0
Incr Delay (d2), s/veh	14.7	0.4	0.3	9.4	0.0	3.3	14.0	1.5	0.0	5.1	5.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	1.5	0.9	3.7	0.0	4.4	2.9	8.4	0.3	0.7	11.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.4	32.7	32.2	47.5	0.0	39.0	53.5	21.0	13.2	47.4	30.2	17.2
LnGrp LOS	D	C	C	D	A	D	D	C	B	D	C	B
Approach Vol, veh/h		311			373			1302			1340	
Approach Delay, s/veh		43.6			42.6			23.8			29.6	
Approach LOS		D			D			C			C	

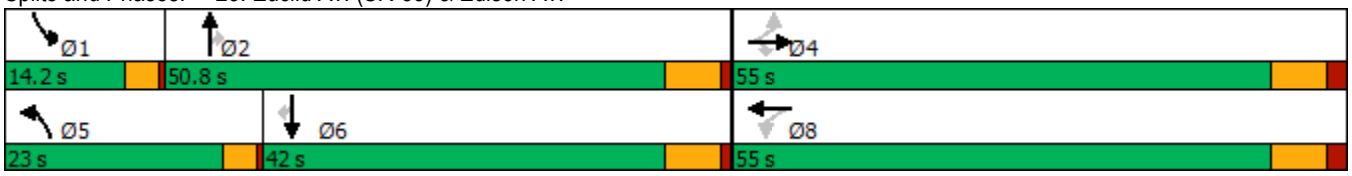
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	46.6	13.9	21.6	11.4	41.4	14.7	20.8
Change Period (Y+Rc), s	3.5	6.0	3.5	7.0	3.5	6.0	3.5	7.0
Max Green Setting (Gmax), s	5.0	44.5	15.2	35.3	10.5	39.0	14.5	36.0
Max Q Clear Time (g_c+I1), s	3.8	26.3	10.5	5.6	8.4	30.7	11.3	12.1
Green Ext Time (p_c), s	0.0	7.1	0.1	0.4	0.0	4.7	0.1	0.8

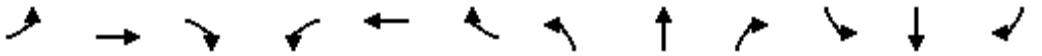
Intersection Summary	
HCM 6th Ctrl Delay	30.1
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	165	284	125	35	451	231	1002	40	79	989	177
Future Volume (vph)	165	284	125	35	451	231	1002	40	79	989	177
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	46.0	46.0	46.0	49.0	49.0	8.5	29.0	29.0	8.5	40.0	40.0
Total Split (s)	55.0	55.0	55.0	55.0	55.0	23.0	50.8	50.8	14.2	42.0	42.0
Total Split (%)	45.8%	45.8%	45.8%	45.8%	45.8%	19.2%	42.3%	42.3%	11.8%	35.0%	35.0%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 119.6
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 25: Euclid Av. (SR-83) & Edison Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	284	125	35	451	70	231	1002	40	79	989	177
Future Volume (veh/h)	165	284	125	35	451	70	231	1002	40	79	989	177
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	172	296	75	36	470	68	241	1044	34	82	1030	133
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	173	720	610	333	615	89	263	1368	610	101	1026	447
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.16	0.40	0.40	0.06	0.30	0.30
Sat Flow, veh/h	832	1800	1524	970	1537	222	1619	3420	1525	1619	3420	1489
Grp Volume(v), veh/h	172	296	75	36	0	538	241	1044	34	82	1030	133
Grp Sat Flow(s),veh/h/ln	832	1800	1524	970	0	1760	1619	1710	1525	1619	1710	1489
Q Serve(g_s), s	16.3	14.2	3.7	3.3	0.0	31.7	17.6	31.6	1.6	6.0	36.0	8.2
Cycle Q Clear(g_c), s	48.0	14.2	3.7	17.5	0.0	31.7	17.6	31.6	1.6	6.0	36.0	8.2
Prop In Lane	1.00		1.00	1.00		0.13	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	173	720	610	333	0	704	263	1368	610	101	1026	447
V/C Ratio(X)	0.99	0.41	0.12	0.11	0.00	0.76	0.92	0.76	0.06	0.81	1.00	0.30
Avail Cap(c_a), veh/h	173	720	610	333	0	704	263	1368	610	144	1026	447
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.6	25.9	22.7	32.1	0.0	31.1	49.4	31.1	22.1	55.6	42.0	32.3
Incr Delay (d2), s/veh	66.7	0.4	0.1	0.1	0.0	5.0	33.5	2.6	0.0	13.5	29.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	5.9	1.3	0.8	0.0	13.7	9.2	12.5	0.6	2.7	18.3	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	121.4	26.2	22.8	32.3	0.0	36.1	82.9	33.7	22.1	69.1	71.0	32.7
LnGrp LOS	F	C	C	C	A	D	F	C	C	E	F	C
Approach Vol, veh/h		543			574			1319			1245	
Approach Delay, s/veh		55.9			35.9			42.4			66.8	
Approach LOS		E			D			D			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.0	54.0		55.0	23.0	42.0		55.0				
Change Period (Y+Rc), s	3.5	6.0		7.0	3.5	6.0		7.0				
Max Green Setting (Gmax), s	10.7	44.8		48.0	19.5	36.0		48.0				
Max Q Clear Time (g_c+I1), s	8.0	33.6		50.0	19.6	38.0		33.7				
Green Ext Time (p_c), s	0.0	4.9		0.0	0.0	0.0		2.9				

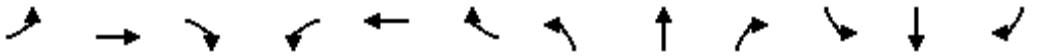
Intersection Summary			
HCM 6th Ctrl Delay		51.6	
HCM 6th LOS		D	

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	71	28	166	34	161	183	1205	13	63	1135	42
Future Volume (vph)	71	28	166	34	161	183	1205	13	63	1135	42
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	46.8	46.8	46.8	46.8	46.8	8.5	30.7	30.7	8.5	37.7	37.7
Total Split (s)	46.8	46.8	46.8	46.8	46.8	24.0	63.5	63.5	9.7	49.2	49.2
Total Split (%)	39.0%	39.0%	39.0%	39.0%	39.0%	20.0%	52.9%	52.9%	8.1%	41.0%	41.0%
Yellow Time (s)	4.3	4.3	4.3	4.3	4.3	3.0	4.7	4.7	3.0	4.7	4.7
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.8	4.8	3.5	5.7	5.7	3.5	5.7	5.7
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 84.6
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 26: Euclid Av. (SR-83) & Eucalyptus Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	28	166	34	161	50	183	1205	13	63	1135	42
Future Volume (veh/h)	71	28	166	34	161	50	183	1205	13	63	1135	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	72	29	83	35	164	43	187	1230	12	64	1158	32
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	222	372	316	348	284	75	229	1802	804	85	1498	667
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.14	0.53	0.53	0.05	0.44	0.44
Sat Flow, veh/h	1127	1800	1525	1229	1375	360	1619	3420	1525	1619	3420	1524
Grp Volume(v), veh/h	72	29	83	35	0	207	187	1230	12	64	1158	32
Grp Sat Flow(s),veh/h/ln	1127	1800	1525	1229	0	1735	1619	1710	1525	1619	1710	1524
Q Serve(g_s), s	4.0	0.9	3.0	1.5	0.0	7.0	7.3	17.4	0.2	2.6	18.9	0.8
Cycle Q Clear(g_c), s	11.1	0.9	3.0	2.4	0.0	7.0	7.3	17.4	0.2	2.6	18.9	0.8
Prop In Lane	1.00		1.00	1.00		0.21	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	222	372	316	348	0	359	229	1802	804	85	1498	667
V/C Ratio(X)	0.32	0.08	0.26	0.10	0.00	0.58	0.82	0.68	0.01	0.75	0.77	0.05
Avail Cap(c_a), veh/h	711	1154	978	882	0	1112	507	3017	1346	153	2271	1012
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.4	20.9	21.8	21.9	0.0	23.4	27.3	11.4	7.4	30.6	15.6	10.6
Incr Delay (d2), s/veh	0.6	0.1	0.3	0.1	0.0	1.1	5.3	0.5	0.0	9.5	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.3	1.0	0.4	0.0	2.7	2.8	4.5	0.1	1.1	5.6	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.0	21.0	22.1	22.0	0.0	24.5	32.6	11.9	7.4	40.1	16.6	10.6
LnGrp LOS	C	C	C	C	A	C	C	B	A	D	B	B
Approach Vol, veh/h		184			242			1429			1254	
Approach Delay, s/veh		24.6			24.1			14.6			17.6	
Approach LOS		C			C			B			B	

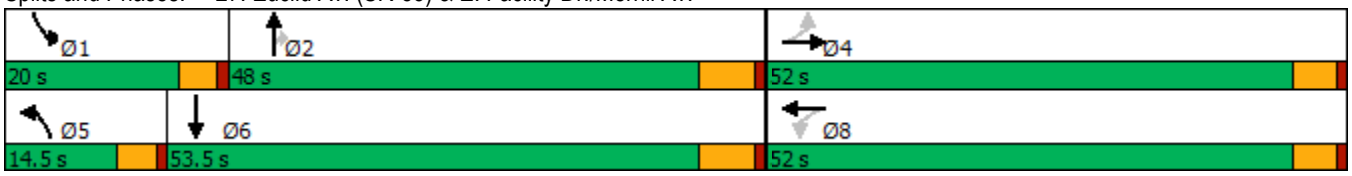
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	40.2		18.4	12.8	34.4		18.4				
Change Period (Y+Rc), s	3.5	5.7		4.8	3.5	5.7		4.8				
Max Green Setting (Gmax), s	6.2	57.8		42.0	20.5	43.5		42.0				
Max Q Clear Time (g_c+I1), s	4.6	19.4		13.1	9.3	20.9		9.0				
Green Ext Time (p_c), s	0.0	9.8		0.5	0.2	7.8		1.0				

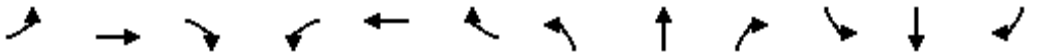
Intersection Summary			
HCM 6th Ctrl Delay		17.1	
HCM 6th LOS		B	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	4	8	254	50	11	1135	203	187	1090
Future Volume (vph)	4	8	254	50	11	1135	203	187	1090
Turn Type	Perm	NA	Perm	NA	Prot	NA	Perm	Prot	NA
Protected Phases		4		8	5	2		1	6
Permitted Phases	4		8				2		
Detector Phase	4	4	8	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	15.0	15.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	10.0	10.0	46.0	46.0	14.5	28.0	28.0	14.5	28.0
Total Split (s)	52.0	52.0	52.0	52.0	14.5	48.0	48.0	20.0	53.5
Total Split (%)	43.3%	43.3%	43.3%	43.3%	12.1%	40.0%	40.0%	16.7%	44.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.5	5.0	5.0	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	4.5	6.0	6.0	4.5	6.0
Lead/Lag					Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 119.9
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 27: Euclid Av. (SR-83) & E. Facility Dr./Merrill Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	8	18	254	50	259	11	1135	203	187	1090	41
Future Volume (veh/h)	4	8	18	254	50	259	11	1135	203	187	1090	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	4	8	18	262	52	240	11	1170	166	193	1124	28
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	92	185	364	316	54	249	42	1212	540	212	1566	39
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.03	0.35	0.35	0.13	0.46	0.46
Sat Flow, veh/h	151	481	949	707	140	648	1619	3420	1525	1619	3408	85
Grp Volume(v), veh/h	30	0	0	554	0	0	11	1170	166	193	564	588
Grp Sat Flow(s),veh/h/ln	1581	0	0	1495	0	0	1619	1710	1525	1619	1710	1782
Q Serve(g_s), s	0.0	0.0	0.0	41.5	0.0	0.0	0.8	39.7	9.3	13.9	31.5	31.5
Cycle Q Clear(g_c), s	1.4	0.0	0.0	42.9	0.0	0.0	0.8	39.7	9.3	13.9	31.5	31.5
Prop In Lane	0.13		0.60	0.47		0.43	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	641	0	0	619	0	0	42	1212	540	212	786	819
V/C Ratio(X)	0.05	0.00	0.00	0.90	0.00	0.00	0.26	0.97	0.31	0.91	0.72	0.72
Avail Cap(c_a), veh/h	661	0	0	639	0	0	137	1214	541	212	786	819
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.9	0.0	0.0	35.6	0.0	0.0	56.6	37.5	27.7	50.7	25.8	25.8
Incr Delay (d2), s/veh	0.0	0.0	0.0	14.4	0.0	0.0	1.2	18.1	0.3	37.3	3.2	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	17.0	0.0	0.0	0.3	18.4	3.3	7.6	12.3	12.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.9	0.0	0.0	50.0	0.0	0.0	57.8	55.6	28.0	88.0	28.9	28.8
LnGrp LOS	C	A	A	D	A	A	E	E	C	F	C	C
Approach Vol, veh/h		30			554			1347			1345	
Approach Delay, s/veh		22.9			50.0			52.2			37.4	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.0	47.9		50.4	7.5	60.4		50.4				
Change Period (Y+Rc), s	4.5	6.0		5.0	4.5	6.0		5.0				
Max Green Setting (Gmax), s	15.5	42.0		47.0	10.0	47.5		47.0				
Max Q Clear Time (g_c+I1), s	15.9	41.7		3.4	2.8	33.5		44.9				
Green Ext Time (p_c), s	0.0	0.2		0.1	0.0	5.5		0.5				

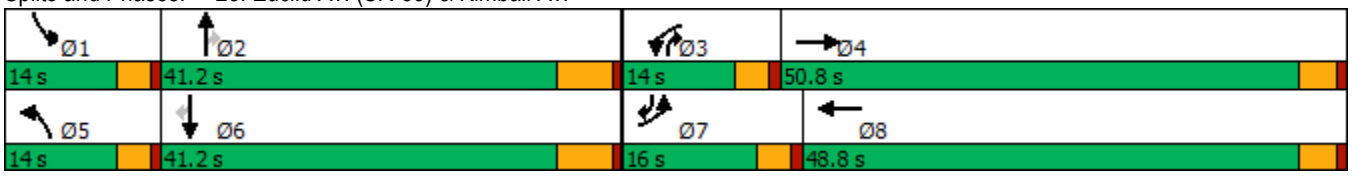
Intersection Summary			
HCM 6th Ctrl Delay		45.5	
HCM 6th LOS		D	

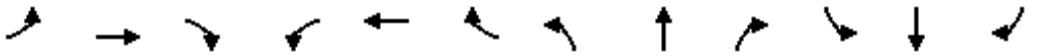
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	134	259	52	780	104	851	48	224	663	400
Future Volume (vph)	134	259	52	780	104	851	48	224	663	400
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	3	8	5	2	3	1	6	7
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	7
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	14.0	49.5	14.0	45.5	14.0	36.0	14.0	9.0	33.0	14.0
Total Split (s)	16.0	50.8	14.0	48.8	14.0	41.2	14.0	14.0	41.2	16.0
Total Split (%)	13.3%	42.3%	11.7%	40.7%	11.7%	34.3%	11.7%	11.7%	34.3%	13.3%
Yellow Time (s)	3.0	3.5	3.0	3.5	3.0	5.0	3.0	3.0	5.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.5	4.0	4.5	4.0	6.0	4.0	4.0	6.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	None	Min	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 112.6
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 28: Euclid Av. (SR-83) & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	259	40	52	780	323	104	851	48	224	663	400
Future Volume (veh/h)	134	259	40	52	780	323	104	851	48	224	663	400
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1600	1800	1800	1700	1800	1800	1700	1800	1800	1600	1800	1800
Adj Flow Rate, veh/h	137	264	32	53	796	294	106	868	37	229	677	279
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	269	1151	138	119	873	322	144	986	552	274	999	579
Arrive On Green	0.09	0.37	0.37	0.07	0.36	0.36	0.09	0.29	0.29	0.09	0.29	0.29
Sat Flow, veh/h	2956	3075	369	1619	2445	902	1619	3420	1525	2956	3420	1506
Grp Volume(v), veh/h	137	146	150	53	556	534	106	868	37	229	677	279
Grp Sat Flow(s),veh/h/ln	1478	1710	1734	1619	1710	1638	1619	1710	1525	1478	1710	1506
Q Serve(g_s), s	4.8	6.3	6.4	3.4	33.5	33.6	6.9	26.2	1.7	8.2	18.9	15.2
Cycle Q Clear(g_c), s	4.8	6.3	6.4	3.4	33.5	33.6	6.9	26.2	1.7	8.2	18.9	15.2
Prop In Lane	1.00		0.21	1.00		0.55	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	269	640	649	119	610	585	144	986	552	274	999	579
V/C Ratio(X)	0.51	0.23	0.23	0.44	0.91	0.91	0.74	0.88	0.07	0.84	0.68	0.48
Avail Cap(c_a), veh/h	328	733	743	150	701	671	150	1114	609	274	1114	629
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.8	23.1	23.2	47.9	33.1	33.1	48.0	36.7	22.5	48.2	33.8	25.2
Incr Delay (d2), s/veh	0.6	0.2	0.2	1.0	14.0	14.6	14.5	7.7	0.1	18.8	1.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	2.5	2.5	1.4	15.3	14.8	3.2	11.1	0.6	3.6	7.5	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.4	23.3	23.3	48.9	47.1	47.7	62.5	44.4	22.6	67.0	35.2	25.9
LnGrp LOS	D	C	C	D	D	D	E	D	C	E	D	C
Approach Vol, veh/h		433			1143			1011			1185	
Approach Delay, s/veh		30.9			47.5			45.5			39.2	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	37.1	12.0	44.9	13.6	37.6	13.8	43.1
Change Period (Y+Rc), s	4.0	6.0	4.0	4.5	4.0	6.0	4.0	4.5
Max Green Setting (Gmax), s	10.0	35.2	10.0	46.3	10.0	35.2	12.0	44.3
Max Q Clear Time (g_c+I1), s	10.2	28.2	5.4	8.4	8.9	20.9	6.8	35.6
Green Ext Time (p_c), s	0.0	3.0	0.0	1.6	0.0	4.3	0.1	3.0

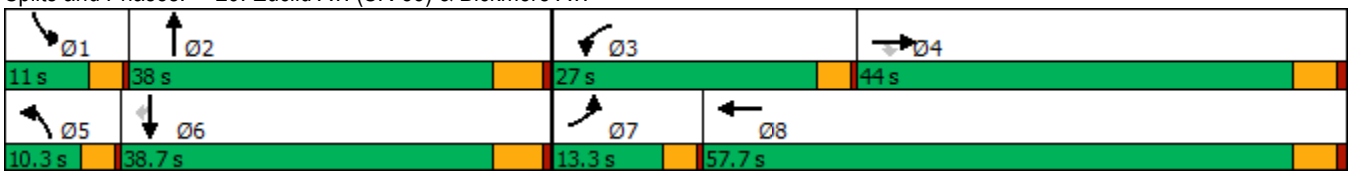
Intersection Summary	
HCM 6th Ctrl Delay	42.4
HCM 6th LOS	D

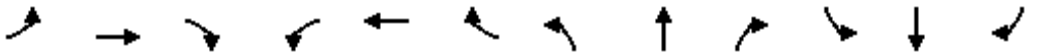
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	52	10	24	194	213	29	684	46	648	152
Future Volume (vph)	52	10	24	194	213	29	684	46	648	152
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.5	44.0	44.0	8.5	44.0	8.5	26.5	8.5	30.5	30.5
Total Split (s)	13.3	44.0	44.0	27.0	57.7	10.3	38.0	11.0	38.7	38.7
Total Split (%)	11.1%	36.7%	36.7%	22.5%	48.1%	8.6%	31.7%	9.2%	32.3%	32.3%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	3.0	4.5	3.0	4.5	4.5
All-Red Time (s)	0.5	1.0	1.0	0.5	1.0	0.5	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.5	3.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 77.7
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 29: Euclid Av. (SR-83) & Bickmore Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	10	24	194	213	167	29	684	30	46	648	152
Future Volume (veh/h)	52	10	24	194	213	167	29	684	30	46	648	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	58	11	23	216	237	147	32	760	26	51	720	121
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	88	304	258	265	290	180	57	974	33	81	1037	462
Arrive On Green	0.05	0.17	0.17	0.16	0.28	0.28	0.04	0.29	0.29	0.05	0.30	0.30
Sat Flow, veh/h	1619	1800	1525	1619	1039	645	1619	3374	115	1619	3420	1525
Grp Volume(v), veh/h	58	11	23	216	0	384	32	385	401	51	720	121
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1619	0	1684	1619	1710	1779	1619	1710	1525
Q Serve(g_s), s	1.9	0.3	0.7	6.9	0.0	11.3	1.0	11.0	11.0	1.6	9.9	3.2
Cycle Q Clear(g_c), s	1.9	0.3	0.7	6.9	0.0	11.3	1.0	11.0	11.0	1.6	9.9	3.2
Prop In Lane	1.00		1.00	1.00		0.38	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	88	304	258	265	0	470	57	494	514	81	1037	462
V/C Ratio(X)	0.66	0.04	0.09	0.81	0.00	0.82	0.56	0.78	0.78	0.63	0.69	0.26
Avail Cap(c_a), veh/h	298	1318	1117	714	0	1666	207	1043	1086	228	2132	951
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.7	18.5	18.7	21.5	0.0	17.9	25.3	17.4	17.4	24.8	16.4	14.0
Incr Delay (d2), s/veh	3.2	0.0	0.1	2.3	0.0	1.4	3.1	1.0	1.0	3.0	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.1	0.2	2.4	0.0	3.8	0.4	3.4	3.5	0.6	2.9	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.9	18.5	18.7	23.8	0.0	19.3	28.4	18.4	18.4	27.9	16.7	14.2
LnGrp LOS	C	B	B	C	A	B	C	B	B	C	B	B
Approach Vol, veh/h		92			600			818			892	
Approach Delay, s/veh		24.5			20.9			18.8			17.0	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	20.9	12.2	14.0	5.4	21.6	6.4	19.9
Change Period (Y+Rc), s	3.5	5.5	3.5	5.0	3.5	5.5	3.5	5.0
Max Green Setting (Gmax), s	7.5	32.5	23.5	39.0	6.8	33.2	9.8	52.7
Max Q Clear Time (g_c+I1), s	3.6	13.0	8.9	2.7	3.0	11.9	3.9	13.3
Green Ext Time (p_c), s	0.0	2.4	0.2	0.1	0.0	2.8	0.0	1.5

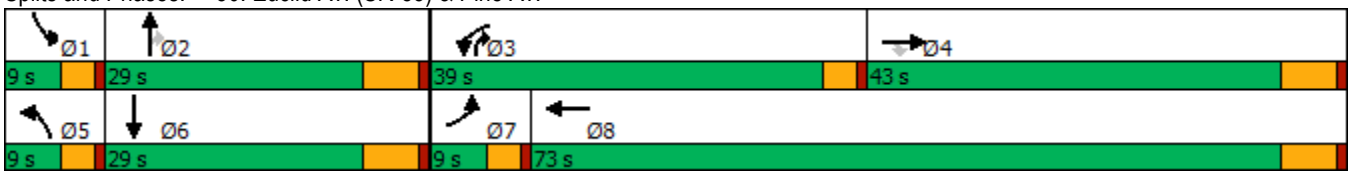
Intersection Summary	
HCM 6th Ctrl Delay	18.9
HCM 6th LOS	B

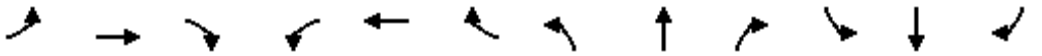
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	8	184	49	1080	326	54	726	707	51	695
Future Volume (vph)	8	184	49	1080	326	54	726	707	51	695
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4		3	8	5	2	3	1	6
Permitted Phases			4					2		
Detector Phase	7	4	4	3	8	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.0	43.0	43.0	9.0	45.0	9.0	11.0	9.0	9.0	29.0
Total Split (s)	9.0	43.0	43.0	39.0	73.0	9.0	29.0	39.0	9.0	29.0
Total Split (%)	7.5%	35.8%	35.8%	32.5%	60.8%	7.5%	24.2%	32.5%	7.5%	24.2%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0	3.0	3.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	4.0	6.0	4.0	4.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 102.6
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 30: Euclid Av. (SR-83) & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	184	49	1080	326	63	54	726	707	51	695	17
Future Volume (veh/h)	8	184	49	1080	326	63	54	726	707	51	695	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1600	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	8	190	0	1113	336	63	56	748	473	53	716	14
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	16	247		1097	735	138	69	818	923	65	812	16
Arrive On Green	0.01	0.14	0.00	0.37	0.50	0.50	0.04	0.24	0.24	0.04	0.24	0.24
Sat Flow, veh/h	1619	1800	1525	2956	1474	276	1619	3420	1493	1619	3431	67
Grp Volume(v), veh/h	8	190	0	1113	0	399	56	748	473	53	357	373
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1478	0	1750	1619	1710	1493	1619	1710	1788
Q Serve(g_s), s	0.5	9.6	0.0	35.0	0.0	14.0	3.2	20.1	17.0	3.1	19.0	19.0
Cycle Q Clear(g_c), s	0.5	9.6	0.0	35.0	0.0	14.0	3.2	20.1	17.0	3.1	19.0	19.0
Prop In Lane	1.00		1.00	1.00		0.16	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	16	247		1097	0	872	69	818	923	65	405	423
V/C Ratio(X)	0.49	0.77		1.01	0.00	0.46	0.81	0.91	0.51	0.81	0.88	0.88
Avail Cap(c_a), veh/h	86	706		1097	0	1244	86	834	930	86	417	436
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.4	39.2	0.0	29.6	0.0	15.4	44.7	34.9	10.5	44.9	34.7	34.7
Incr Delay (d2), s/veh	8.3	7.0	0.0	30.7	0.0	0.5	29.7	14.0	0.2	26.8	18.1	17.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	4.5	0.0	15.7	0.0	5.0	1.8	9.2	4.5	1.6	9.2	9.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.8	46.3	0.0	60.4	0.0	15.9	74.4	48.9	10.7	71.7	52.8	52.2
LnGrp LOS	D	D		F	A	B	E	D	B	E	D	D
Approach Vol, veh/h		198	A		1512			1277			783	
Approach Delay, s/veh		46.6			48.6			35.9			53.8	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	28.5	39.0	18.9	8.0	28.3	4.9	53.0
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	5.0	23.0	35.0	37.0	5.0	23.0	5.0	67.0
Max Q Clear Time (g_c+I1), s	5.1	22.1	37.0	11.6	5.2	21.0	2.5	16.0
Green Ext Time (p_c), s	0.0	0.5	0.0	1.3	0.0	0.6	0.0	3.6

Intersection Summary	
HCM 6th Ctrl Delay	45.3
HCM 6th LOS	D

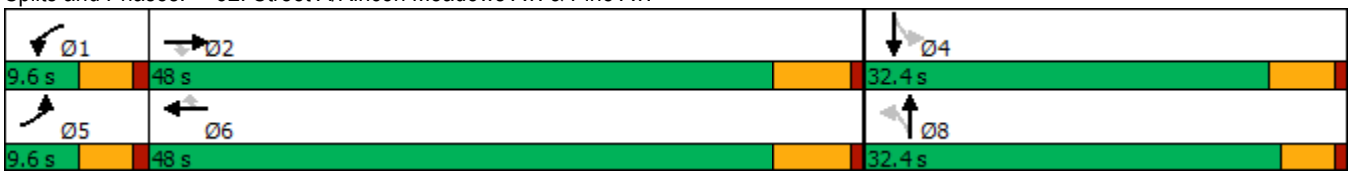
Notes

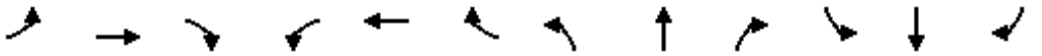
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	18	924	12	5	1408	67	33	5	22	2
Future Volume (vph)	18	924	12	5	1408	67	33	5	22	2
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	NA
Protected Phases	5	2		1	6			8		4
Permitted Phases			2			6	8		4	
Detector Phase	5	2	2	1	6	6	8	8	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.2	28.2	9.6	28.2	28.2	31.6	31.6	32.4	32.4
Total Split (s)	9.6	48.0	48.0	9.6	48.0	48.0	32.4	32.4	32.4	32.4
Total Split (%)	10.7%	53.3%	53.3%	10.7%	53.3%	53.3%	36.0%	36.0%	36.0%	36.0%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	5.2	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	6.2	4.6	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 69.9
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 32: Street A/Rincon Meadows Av. & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	924	12	5	1408	67	33	5	13	22	2	23
Future Volume (veh/h)	18	924	12	5	1408	67	33	5	13	22	2	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	20	1004	13	5	1530	73	36	5	14	24	2	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	37	2151	960	11	2095	934	262	53	149	270	15	181
Arrive On Green	0.02	0.63	0.63	0.01	0.61	0.61	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	1619	3420	1525	1714	3420	1525	1405	418	1171	1416	114	1429
Grp Volume(v), veh/h	20	1004	13	5	1530	73	36	0	19	24	0	27
Grp Sat Flow(s),veh/h/ln	1619	1710	1525	1714	1710	1525	1405	0	1589	1416	0	1543
Q Serve(g_s), s	0.8	10.5	0.2	0.2	21.4	1.3	1.6	0.0	0.7	1.0	0.0	1.1
Cycle Q Clear(g_c), s	0.8	10.5	0.2	0.2	21.4	1.3	2.7	0.0	0.7	1.8	0.0	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.74	1.00		0.93
Lane Grp Cap(c), veh/h	37	2151	960	11	2095	934	262	0	202	270	0	196
V/C Ratio(X)	0.53	0.47	0.01	0.44	0.73	0.08	0.14	0.00	0.09	0.09	0.00	0.14
Avail Cap(c_a), veh/h	119	2151	960	126	2095	934	656	0	647	651	0	610
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.0	6.6	4.7	33.8	9.3	5.4	27.7	0.0	26.3	27.1	0.0	26.5
Incr Delay (d2), s/veh	4.3	0.7	0.0	9.6	2.3	0.2	0.2	0.0	0.2	0.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	2.5	0.0	0.1	5.6	0.3	0.5	0.0	0.3	0.3	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.3	7.4	4.8	43.4	11.6	5.5	27.9	0.0	26.5	27.2	0.0	26.8
LnGrp LOS	D	A	A	D	B	A	C	A	C	C	A	C
Approach Vol, veh/h		1037			1608			55			51	
Approach Delay, s/veh		7.9			11.4			27.4			27.0	
Approach LOS		A			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.1	49.1		14.1	6.2	48.0		14.1				
Change Period (Y+Rc), s	4.6	6.2		5.4	4.6	6.2		* 5.4				
Max Green Setting (Gmax), s	5.0	41.8		27.0	5.0	41.8		* 28				
Max Q Clear Time (g_c+I1), s	2.2	12.5		3.8	2.8	23.4		4.7				
Green Ext Time (p_c), s	0.0	7.2		0.1	0.0	10.3		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		10.7
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	36	832	78	75	1356	130	71	16	31	35
Future Volume (vph)	36	832	78	75	1356	130	71	16	31	35
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	NA
Protected Phases	7	4		3	8			2		6
Permitted Phases			4			8	2		6	
Detector Phase	7	4	4	3	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	16.2	9.6	23.2	23.2	15.8	15.8	15.2	15.2
Total Split (s)	9.6	88.4	88.4	15.3	94.1	94.1	16.3	16.3	16.3	16.3
Total Split (%)	8.0%	73.7%	73.7%	12.8%	78.4%	78.4%	13.6%	13.6%	13.6%	13.6%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	5.2	4.8	4.8	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	6.2	5.8	5.8	5.2	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 118
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 34: Chino Corona Rd. & Pine Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	832	78	75	1356	130	71	16	37	31	35	48
Future Volume (veh/h)	36	832	78	75	1356	130	71	16	37	31	35	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	38	876	0	79	1427	110	75	17	34	33	37	50
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	49	2432		98	1334	1131	107	47	95	137	61	83
Arrive On Green	0.03	0.71	0.00	0.06	0.74	0.74	0.09	0.09	0.09	0.09	0.09	0.09
Sat Flow, veh/h	1619	3420	1525	1619	1800	1525	1257	536	1071	1299	694	938
Grp Volume(v), veh/h	38	876	0	79	1427	110	75	0	51	33	0	87
Grp Sat Flow(s),veh/h/ln	1619	1710	1525	1619	1800	1525	1257	0	1607	1299	0	1631
Q Serve(g_s), s	2.8	11.8	0.0	5.7	87.9	2.4	4.4	0.0	3.5	2.9	0.0	6.1
Cycle Q Clear(g_c), s	2.8	11.8	0.0	5.7	87.9	2.4	10.5	0.0	3.5	6.5	0.0	6.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.67	1.00		0.57
Lane Grp Cap(c), veh/h	49	2432		98	1334	1131	107	0	142	137	0	144
V/C Ratio(X)	0.78	0.36		0.81	1.07	0.10	0.70	0.00	0.36	0.24	0.00	0.60
Avail Cap(c_a), veh/h	68	2432		146	1334	1131	107	0	142	144	0	153
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.1	6.7	0.0	55.0	15.3	4.3	57.9	0.0	50.9	53.9	0.0	52.0
Incr Delay (d2), s/veh	20.0	0.4	0.0	10.7	45.5	0.2	18.0	0.0	1.5	0.9	0.0	5.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	3.5	0.0	2.5	41.3	0.6	2.7	0.0	1.5	1.0	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.1	7.1	0.0	65.7	60.8	4.4	75.9	0.0	52.4	54.8	0.0	58.0
LnGrp LOS	E	A		E	F	A	E	A	D	D	A	E
Approach Vol, veh/h		914	A		1616			126			120	
Approach Delay, s/veh		10.0			57.2			66.4			57.1	
Approach LOS		A			E			E			E	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		16.3	11.8	90.5		16.3	8.2	94.1				
Change Period (Y+Rc), s		5.8	4.6	6.2		* 5.8	4.6	6.2				
Max Green Setting (Gmax), s		10.5	10.7	82.2		* 11	5.0	87.9				
Max Q Clear Time (g_c+I1), s		12.5	7.7	13.8		8.5	4.8	89.9				
Green Ext Time (p_c), s		0.0	0.0	6.4		0.1	0.0	0.0				

Intersection Summary	
HCM 6th Ctrl Delay	42.1
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

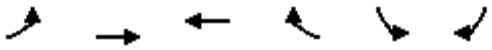
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	24	876	1548	80	13
Future Volume (vph)	24	876	1548	80	13
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	7	4	8	6	
Permitted Phases					6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	14.7	14.7
Total Split (s)	11.4	99.4	88.0	20.6	20.6
Total Split (%)	9.5%	82.8%	73.3%	17.2%	17.2%
Yellow Time (s)	3.6	4.8	4.8	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.7	4.7
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 96.7
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 36: Pine Av. & West Preserve Loop





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	24	876	1548	243	80	13
Future Volume (veh/h)	24	876	1548	243	80	13
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1700	1800
Adj Flow Rate, veh/h	26	932	1647	249	85	12
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	42	2683	2123	314	170	160
Arrive On Green	0.03	0.78	0.71	0.71	0.11	0.11
Sat Flow, veh/h	1619	3510	3079	442	1619	1525
Grp Volume(v), veh/h	26	932	926	970	85	12
Grp Sat Flow(s),veh/h/ln	1619	1710	1710	1721	1619	1525
Q Serve(g_s), s	1.5	7.7	32.6	35.7	4.7	0.7
Cycle Q Clear(g_c), s	1.5	7.7	32.6	35.7	4.7	0.7
Prop In Lane	1.00			0.26	1.00	1.00
Lane Grp Cap(c), veh/h	42	2683	1214	1222	170	160
V/C Ratio(X)	0.61	0.35	0.76	0.79	0.50	0.07
Avail Cap(c_a), veh/h	116	3363	1477	1486	270	255
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.9	3.0	8.7	9.2	40.2	38.4
Incr Delay (d2), s/veh	13.6	0.1	2.3	2.9	2.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.3	8.6	9.6	2.0	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	59.5	3.1	11.0	12.0	42.5	38.6
LnGrp LOS	E	A	B	B	D	D
Approach Vol, veh/h		958	1896		97	
Approach Delay, s/veh		4.7	11.5		42.0	
Approach LOS		A	B		D	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			80.5		14.7	7.1	73.4
Change Period (Y+Rc), s			5.8		4.7	4.6	5.8
Max Green Setting (Gmax), s			93.6		15.9	6.8	82.2
Max Q Clear Time (g_c+I1), s			9.7		6.7	3.5	37.7
Green Ext Time (p_c), s			11.1		0.1	0.0	29.9

Intersection Summary		
HCM 6th Ctrl Delay		10.3
HCM 6th LOS		B

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	925	30	18	1736	55	53
Future Volume (vph)	925	30	18	1736	55	53
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	35.8	35.8	9.6	15.8	10.1	10.1
Total Split (s)	89.0	89.0	13.0	102.0	18.0	18.0
Total Split (%)	74.2%	74.2%	10.8%	85.0%	15.0%	15.0%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.1	5.1
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 86.3
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 39: East Preserve Loop & Pine Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	925	30	18	1736	55	53
Future Volume (veh/h)	925	30	18	1736	55	53
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1800	1800	1700	1800	1600	1800
Adj Flow Rate, veh/h	984	29	19	1847	59	35
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	2270	1012	34	2516	423	218
Arrive On Green	0.66	0.66	0.02	0.74	0.14	0.14
Sat Flow, veh/h	3510	1525	1619	3510	2956	1525
Grp Volume(v), veh/h	984	29	19	1847	59	35
Grp Sat Flow(s),veh/h/ln	1710	1525	1619	1710	1478	1525
Q Serve(g_s), s	12.2	0.6	1.0	27.9	1.6	1.8
Cycle Q Clear(g_c), s	12.2	0.6	1.0	27.9	1.6	1.8
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2270	1012	34	2516	423	218
V/C Ratio(X)	0.43	0.03	0.56	0.73	0.14	0.16
Avail Cap(c_a), veh/h	3159	1409	151	3652	423	218
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.2	5.2	43.7	6.8	33.7	33.8
Incr Delay (d2), s/veh	0.2	0.0	5.2	0.6	0.7	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.1	0.4	5.9	0.6	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.3	5.2	48.9	7.5	34.4	35.4
LnGrp LOS	A	A	D	A	C	D
Approach Vol, veh/h	1013			1866	94	
Approach Delay, s/veh	7.3			7.9	34.8	
Approach LOS	A			A	C	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		18.0	6.5	65.6		72.1
Change Period (Y+Rc), s		5.1	4.6	5.8		5.8
Max Green Setting (Gmax), s		12.9	8.4	83.2		96.2
Max Q Clear Time (g_c+I1), s		3.8	3.0	14.2		29.9
Green Ext Time (p_c), s		0.1	0.0	12.3		36.3

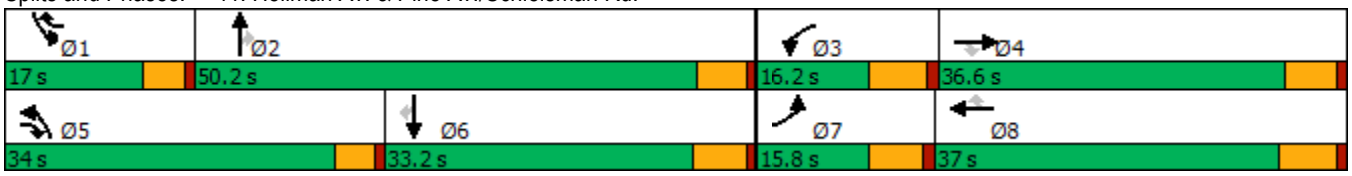
Intersection Summary	
HCM 6th Ctrl Delay	8.5
HCM 6th LOS	A

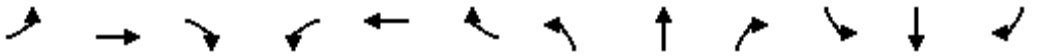
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	522	492	85	1070	317	576	475	95	105	158	17
Future Volume (vph)	36	522	492	85	1070	317	576	475	95	105	158	17
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	5	3	8	1	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	34.8	9.6	16.2	35.2	9.6	9.6	32.4	32.4	9.6	32.8	32.8
Total Split (s)	15.8	36.6	34.0	16.2	37.0	17.0	34.0	50.2	50.2	17.0	33.2	33.2
Total Split (%)	13.2%	30.5%	28.3%	13.5%	30.8%	14.2%	28.3%	41.8%	41.8%	14.2%	27.7%	27.7%
Yellow Time (s)	4.8	4.8	3.6	5.2	5.2	3.6	3.6	4.4	4.4	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	6.2	6.2	4.6	4.6	5.4	5.4	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 110.2
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 41: Hellman Av. & Pine Av./Schleisman Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	522	492	85	1070	317	576	475	95	105	158	17
Future Volume (veh/h)	36	522	492	85	1070	317	576	475	95	105	158	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1600	1800	1800	1600	1800	1800	1600	1800	1800	1600	1800	1800
Adj Flow Rate, veh/h	37	533	364	87	1092	210	588	485	54	107	161	14
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	259	1255	721	259	1272	474	643	1387	619	154	821	366
Arrive On Green	0.09	0.26	0.26	0.09	0.26	0.26	0.22	0.41	0.41	0.05	0.24	0.24
Sat Flow, veh/h	2956	4914	1525	2956	4914	1525	2956	3420	1525	2956	3420	1525
Grp Volume(v), veh/h	37	533	364	87	1092	210	588	485	54	107	161	14
Grp Sat Flow(s),veh/h/ln	1478	1638	1525	1478	1638	1525	1478	1710	1525	1478	1710	1525
Q Serve(g_s), s	1.3	10.3	18.9	3.2	24.2	12.6	22.2	11.2	2.5	4.1	4.3	0.8
Cycle Q Clear(g_c), s	1.3	10.3	18.9	3.2	24.2	12.6	22.2	11.2	2.5	4.1	4.3	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	259	1255	721	259	1272	474	643	1387	619	154	821	366
V/C Ratio(X)	0.14	0.42	0.50	0.34	0.86	0.44	0.91	0.35	0.09	0.70	0.20	0.04
Avail Cap(c_a), veh/h	259	1326	743	259	1326	491	761	1387	619	321	821	366
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.1	35.5	20.8	49.0	40.3	31.4	43.6	23.5	20.9	53.2	34.6	33.3
Incr Delay (d2), s/veh	0.4	0.3	0.8	1.1	5.9	0.9	13.1	0.7	0.3	2.1	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	4.0	6.3	1.2	9.9	4.5	8.9	4.4	0.9	1.5	1.8	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.5	35.8	21.6	50.0	46.3	32.4	56.7	24.2	21.2	55.4	35.1	33.5
LnGrp LOS	D	D	C	D	D	C	E	C	C	E	D	C
Approach Vol, veh/h		934			1389			1127			282	
Approach Delay, s/veh		30.8			44.4			41.0			42.7	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	52.1	16.2	35.3	29.4	33.2	15.8	35.7
Change Period (Y+Rc), s	4.6	* 5.8	6.2	* 6.2	4.6	5.8	5.8	6.2
Max Green Setting (Gmax), s	12.4	* 45	10.0	* 31	29.4	27.4	10.0	30.8
Max Q Clear Time (g_c+I1), s	6.1	13.2	5.2	20.9	24.2	6.3	3.3	26.2
Green Ext Time (p_c), s	0.1	4.7	0.1	4.3	0.6	1.2	0.0	3.4

Intersection Summary	
HCM 6th Ctrl Delay	39.8
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	309	855	868	335	214	508
Future Volume (vph)	309	855	868	335	214	508
Turn Type	Prot	pm+ov	NA	pm+ov	Prot	NA
Protected Phases	8	1	2	8	1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	36.3	11.0	46.3	36.3	11.0	11.0
Total Split (s)	36.3	27.0	56.7	36.3	27.0	83.7
Total Split (%)	30.3%	22.5%	47.3%	30.3%	22.5%	69.8%
Yellow Time (s)	4.3	4.0	4.3	4.3	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.0	5.3	5.3	5.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 112.6
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 42: Archibald Av. & Limonite Av.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	309	855	868	335	214	508
Future Volume (veh/h)	309	855	868	335	214	508
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	322	835	904	302	223	529
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	492	664	856	1163	255	1207
Arrive On Green	0.27	0.27	0.45	0.45	0.14	0.64
Sat Flow, veh/h	1810	1610	1900	1610	1810	1900
Grp Volume(v), veh/h	322	835	904	302	223	529
Grp Sat Flow(s),veh/h/ln	1810	1610	1900	1610	1810	1900
Q Serve(g_s), s	18.0	31.0	51.4	7.3	13.8	16.1
Cycle Q Clear(g_c), s	18.0	31.0	51.4	7.3	13.8	16.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	492	664	856	1163	255	1207
V/C Ratio(X)	0.65	1.26	1.06	0.26	0.88	0.44
Avail Cap(c_a), veh/h	492	664	856	1163	349	1311
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.8	33.5	31.3	5.4	48.0	10.5
Incr Delay (d2), s/veh	2.5	127.6	46.6	0.1	16.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	40.3	32.3	5.1	7.1	5.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	39.3	161.1	77.9	5.5	64.6	10.6
LnGrp LOS	D	F	F	A	E	B
Approach Vol, veh/h	1157		1206			752
Approach Delay, s/veh	127.2		59.8			26.6
Approach LOS	F		E			C

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	21.1	56.7			77.8	36.3
Change Period (Y+Rc), s	5.0	5.3			* 5.3	5.3
Max Green Setting (Gmax), s	22.0	51.4			* 79	31.0
Max Q Clear Time (g_c+I1), s	15.8	53.4			18.1	33.0
Green Ext Time (p_c), s	0.3	0.0			1.7	0.0

Intersection Summary	
HCM 6th Ctrl Delay	76.8
HCM 6th LOS	E

Notes

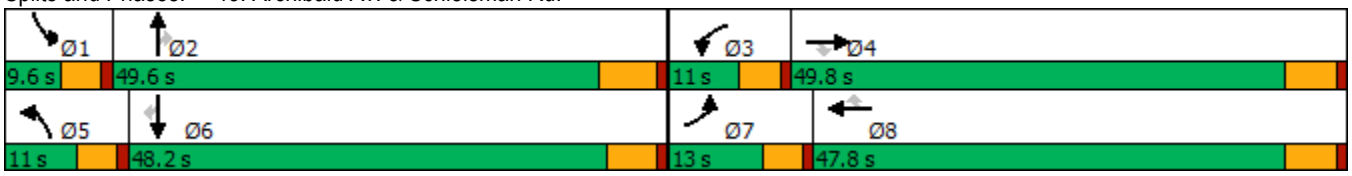
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

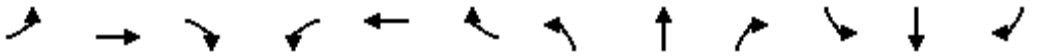
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	450	409	133	263	751	149	265	839	228	110	472	465
Future Volume (vph)	450	409	133	263	751	149	265	839	228	110	472	465
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	47.8	47.8	9.6	47.8	47.8	9.6	48.2	48.2	9.6	47.4	47.4
Total Split (s)	13.0	49.8	49.8	11.0	47.8	47.8	11.0	49.6	49.6	9.6	48.2	48.2
Total Split (%)	10.8%	41.5%	41.5%	9.2%	39.8%	39.8%	9.2%	41.3%	41.3%	8.0%	40.2%	40.2%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	5.2	5.2	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	6.2	6.2	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 110.5
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 43: Archibald Av. & Schleisman Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	450	409	133	263	751	149	265	839	228	110	472	465
Future Volume (veh/h)	450	409	133	263	751	149	265	839	228	110	472	465
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	500	454	84	292	834	89	294	932	180	122	524	395
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	268	2074	634	204	1980	607	204	1576	489	160	1510	462
Arrive On Green	0.08	0.40	0.40	0.06	0.38	0.38	0.06	0.30	0.30	0.05	0.29	0.29
Sat Flow, veh/h	3510	5187	1584	3510	5187	1590	3510	5187	1610	3510	5187	1588
Grp Volume(v), veh/h	500	454	84	292	834	89	294	932	180	122	524	395
Grp Sat Flow(s),veh/h/ln	1755	1729	1584	1755	1729	1590	1755	1729	1610	1755	1729	1588
Q Serve(g_s), s	8.4	6.3	3.7	6.4	13.0	4.0	6.4	16.8	9.6	3.8	8.8	25.8
Cycle Q Clear(g_c), s	8.4	6.3	3.7	6.4	13.0	4.0	6.4	16.8	9.6	3.8	8.8	25.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	268	2074	634	204	1980	607	204	1576	489	160	1510	462
V/C Ratio(X)	1.87	0.22	0.13	1.43	0.42	0.15	1.44	0.59	0.37	0.76	0.35	0.85
Avail Cap(c_a), veh/h	268	2074	634	204	1980	607	204	2046	635	160	2018	618
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.8	21.7	20.9	51.8	25.1	22.3	51.8	32.5	30.0	51.9	30.8	36.8
Incr Delay (d2), s/veh	403.5	0.2	0.4	219.4	0.7	0.5	223.5	0.4	0.5	17.8	0.1	8.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.6	2.5	1.4	9.0	5.2	1.5	9.0	6.7	3.7	2.0	3.5	10.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	454.3	22.0	21.4	271.2	25.7	22.8	275.3	32.9	30.5	69.7	30.9	45.6
LnGrp LOS	F	C	C	F	C	C	F	C	C	E	C	D
Approach Vol, veh/h		1038			1215			1406			1041	
Approach Delay, s/veh		230.2			84.5			83.3			41.0	
Approach LOS		F			F			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	39.6	11.0	49.8	11.0	38.2	13.0	47.8
Change Period (Y+Rc), s	4.6	6.2	4.6	5.8	4.6	* 6.2	4.6	5.8
Max Green Setting (Gmax), s	5.0	43.4	6.4	44.0	6.4	* 43	8.4	42.0
Max Q Clear Time (g_c+I1), s	5.8	18.8	8.4	8.3	8.4	27.8	10.4	15.0
Green Ext Time (p_c), s	0.0	6.8	0.0	3.3	0.0	4.0	0.0	6.0

Intersection Summary	
HCM 6th Ctrl Delay	106.7
HCM 6th LOS	F

Notes

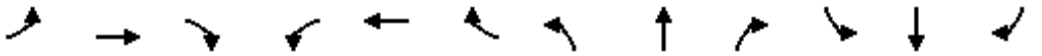
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	WBT	WBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1033	73	844	292	953	0
Future Volume (vph)	1033	73	844	292	953	0
Turn Type	NA	Perm	NA	Perm	Perm	NA
Protected Phases	2		6			4
Permitted Phases		2		6	4	
Detector Phase	2	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	22.8	22.8	15.8	15.8
Total Split (s)	23.0	23.0	23.0	23.0	42.0	42.0
Total Split (%)	35.4%	35.4%	35.4%	35.4%	64.6%	64.6%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max	Max	None	None

Intersection Summary
Cycle Length: 65
Actuated Cycle Length: 65
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Central Av. & SR-71 SB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱↱				↰	✣	
Traffic Volume (veh/h)	0	1033	73	0	844	292	0	0	0	953	0	879
Future Volume (veh/h)	0	1033	73	0	844	292	0	0	0	953	0	879
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	0	1111	0	0	908	0				888	192	750
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1373		0	1373					1008	189	737
Arrive On Green	0.00	0.26	0.00	0.00	0.26	0.00				0.56	0.56	0.56
Sat Flow, veh/h	0	5358	1610	0	5358	2834				1810	339	1323
Grp Volume(v), veh/h	0	1111	0	0	908	0				888	0	942
Grp Sat Flow(s),veh/h/ln	0	1729	1610	0	1729	1417				1810	0	1662
Q Serve(g_s), s	0.0	13.0	0.0	0.0	10.1	0.0				27.8	0.0	36.2
Cycle Q Clear(g_c), s	0.0	13.0	0.0	0.0	10.1	0.0				27.8	0.0	36.2
Prop In Lane	0.00		1.00	0.00		1.00				1.00		0.80
Lane Grp Cap(c), veh/h	0	1373		0	1373					1008	0	926
V/C Ratio(X)	0.00	0.81		0.00	0.66					0.88	0.00	1.02
Avail Cap(c_a), veh/h	0	1373		0	1373					1008	0	926
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	22.4	0.0	0.0	21.3	0.0				12.5	0.0	14.4
Incr Delay (d2), s/veh	0.0	5.2	0.0	0.0	2.5	0.0				9.2	0.0	34.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.2	0.0	0.0	3.9	0.0				10.3	0.0	18.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	27.6	0.0	0.0	23.8	0.0				21.7	0.0	48.5
LnGrp LOS	A	C		A	C					C	A	F
Approach Vol, veh/h		1111	A		908	A					1830	
Approach Delay, s/veh		27.6			23.8						35.5	
Approach LOS		C			C						D	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	23.0	42.0	23.0
Change Period (Y+Rc), s	5.8	5.8	5.8
Max Green Setting (Gmax), s	17.2	36.2	17.2
Max Q Clear Time (g_c+I1), s	15.0	38.2	12.1
Green Ext Time (p_c), s	1.6	0.0	3.0

Intersection Summary	
HCM 6th Ctrl Delay	30.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

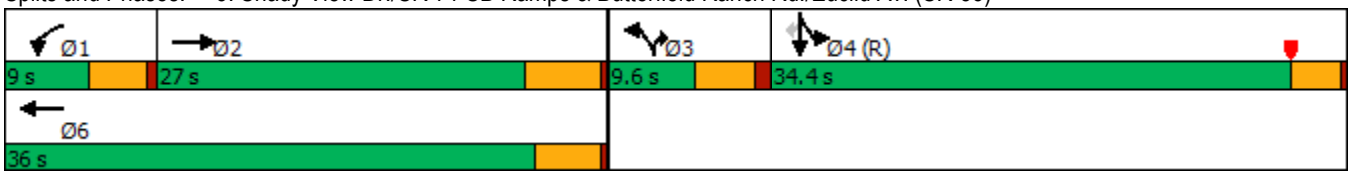
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

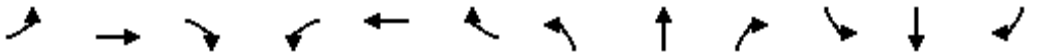
Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	902	128	279	18	156	687	70	71
Future Volume (vph)	902	128	279	18	156	687	70	71
Turn Type	NA	Prot	NA	Prot	Prot	Split	NA	Perm
Protected Phases	2	1	6	3	3	4	4	
Permitted Phases								4
Detector Phase	2	1	6	3	3	4	4	4
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	9.0	26.5	9.5	9.5	32.5	32.5	32.5
Total Split (s)	27.0	9.0	36.0	9.6	9.6	34.4	34.4	34.4
Total Split (%)	33.8%	11.3%	45.0%	12.0%	12.0%	43.0%	43.0%	43.0%
Yellow Time (s)	4.5	3.5	4.0	3.5	3.5	3.0	3.0	3.0
All-Red Time (s)	0.5	0.5	0.5	1.0	1.0	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	4.5	4.5	4.5	3.5	3.5	3.5
Lead/Lag	Lag	Lead		Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	None	None	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 4:SBTL, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 3: Shady View Dr./SR-71 SB Ramps & Butterfield Ranch Rd./Euclid Av. (SR-83)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	902	62	128	279	0	18	0	156	687	70	71
Future Volume (veh/h)	0	902	62	128	279	0	18	0	156	687	70	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	1900	0	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	940	53	133	291	0	19	0	103	768	0	47
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	955	54	113	1399		0	0	0	1832	0	815
Arrive On Green	0.00	0.28	0.28	0.02	0.13	0.00	0.00	0.00	0.00	0.51	0.00	0.51
Sat Flow, veh/h	0	3569	196	1810	3705	0		0		3619	0	1610
Grp Volume(v), veh/h	0	488	505	133	291	0		0.0		768	0	47
Grp Sat Flow(s),veh/h/ln	0	1805	1865	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	21.5	21.5	5.0	5.8	0.0				10.6	0.0	1.2
Cycle Q Clear(g_c), s	0.0	21.5	21.5	5.0	5.8	0.0				10.6	0.0	1.2
Prop In Lane	0.00		0.11	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	496	513	113	1399					1832	0	815
V/C Ratio(X)	0.00	0.98	0.98	1.18	0.21					0.42	0.00	0.06
Avail Cap(c_a), veh/h	0	496	513	113	1421					1832	0	815
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.80	0.80	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	28.8	28.8	39.2	23.9	0.0				12.4	0.0	10.0
Incr Delay (d2), s/veh	0.0	36.0	35.4	130.7	0.0	0.0				0.7	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	13.4	13.7	6.3	2.4	0.0				3.8	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	64.9	64.2	169.9	23.9	0.0				13.1	0.0	10.2
LnGrp LOS	A	E	E	F	C					B	A	B
Approach Vol, veh/h		993			424	A					815	
Approach Delay, s/veh		64.5			69.7						12.9	
Approach LOS		E			E						B	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.0	27.0		44.0		36.0						
Change Period (Y+Rc), s	4.0	5.0		3.5		* 5						
Max Green Setting (Gmax), s	5.0	22.0		30.9		* 32						
Max Q Clear Time (g_c+I1), s	7.0	23.5		12.6		7.8						
Green Ext Time (p_c), s	0.0	0.0		2.9		1.3						

Intersection Summary												
HCM 6th Ctrl Delay			46.7									
HCM 6th LOS			D									

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

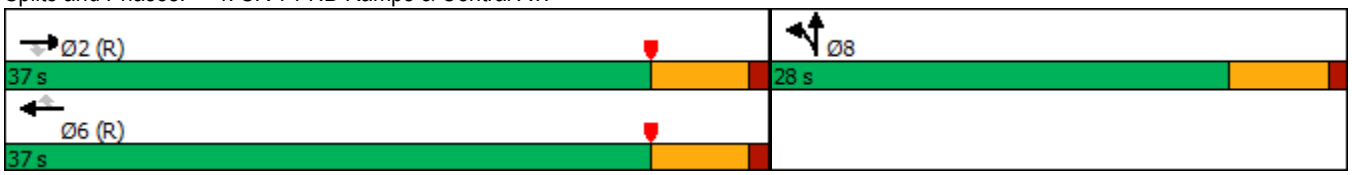
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	1534	453	985	745	152	0
Future Volume (vph)	1534	453	985	745	152	0
Turn Type	NA	Perm	NA	Perm	Split	NA
Protected Phases	2		6		8	8
Permitted Phases		2		6		
Detector Phase	2	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	15.8	15.8	22.8	22.8
Total Split (s)	37.0	37.0	37.0	37.0	28.0	28.0
Total Split (%)	56.9%	56.9%	56.9%	56.9%	43.1%	43.1%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 63.9 (98%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 4: SR-71 NB Ramps & Central Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰	↕				
Traffic Volume (veh/h)	0	1534	453	0	985	745	152	0	371	0	0	0
Future Volume (veh/h)	0	1534	453	0	985	745	152	0	371	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	0	1581	0	0	1015	0	157	0	201			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	0	3388		0	3388		305	0	271			
Arrive On Green	0.00	0.65	0.00	0.00	0.65	0.00	0.17	0.00	0.17			
Sat Flow, veh/h	0	5358	1610	0	5358	1610	1810	0	1610			
Grp Volume(v), veh/h	0	1581	0	0	1015	0	157	0	201			
Grp Sat Flow(s),veh/h/ln	0	1729	1610	0	1729	1610	1810	0	1610			
Q Serve(g_s), s	0.0	9.9	0.0	0.0	5.5	0.0	5.1	0.0	7.7			
Cycle Q Clear(g_c), s	0.0	9.9	0.0	0.0	5.5	0.0	5.1	0.0	7.7			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3388		0	3388		305	0	271			
V/C Ratio(X)	0.00	0.47		0.00	0.30		0.52	0.00	0.74			
Avail Cap(c_a), veh/h	0	3388		0	3388		618	0	550			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.35	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	5.6	0.0	0.0	4.9	0.0	24.6	0.0	25.7			
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.2	0.0	1.3	0.0	4.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	2.1	0.0	0.0	1.2	0.0	2.1	0.0	2.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	5.8	0.0	0.0	5.1	0.0	26.0	0.0	29.7			
LnGrp LOS	A	A		A	A		C	A	C			
Approach Vol, veh/h		1581	A		1015	A		358				
Approach Delay, s/veh		5.8			5.1			28.0				
Approach LOS		A			A			C				

Timer - Assigned Phs	2			6		8						
Phs Duration (G+Y+Rc), s	48.3			48.3		16.7						
Change Period (Y+Rc), s	5.8			5.8		5.8						
Max Green Setting (Gmax), s	31.2			31.2		22.2						
Max Q Clear Time (g_c+I1), s	11.9			7.5		9.7						
Green Ext Time (p_c), s	10.6			6.9		1.2						

Intersection Summary	
HCM 6th Ctrl Delay	8.2
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

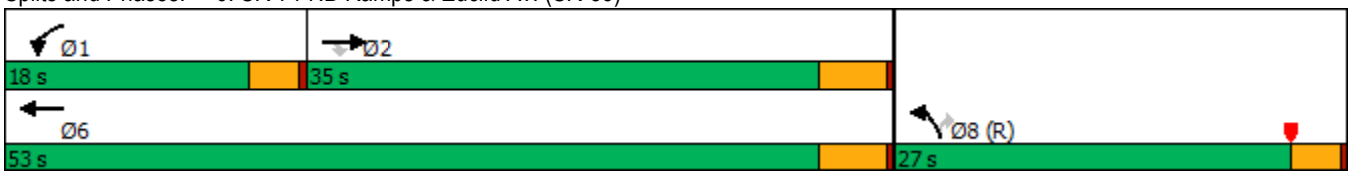
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	884	159	389	1105	135	1049
Future Volume (vph)	884	159	389	1105	135	1049
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	32.5	32.5	8.5	9.5	8.5	8.5
Total Split (s)	35.0	35.0	18.0	53.0	27.0	27.0
Total Split (%)	43.8%	43.8%	22.5%	66.3%	33.8%	33.8%
Yellow Time (s)	4.0	4.0	3.0	4.0	3.0	3.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	3.5	4.5	3.5	3.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 9.5 (12%), Referenced to phase 4: and 8:NBL, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 6: SR-71 NB Ramps & Euclid Av. (SR-83)





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	884	159	389	1105	135	1049
Future Volume (veh/h)	884	159	389	1105	135	1049
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1028	0	452	1285	157	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1179		328	1991	1223	
Arrive On Green	0.43	0.00	0.18	0.55	0.35	0.00
Sat Flow, veh/h	3705	1610	1810	3705	3510	1610
Grp Volume(v), veh/h	1028	0	452	1285	157	0
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805	1755	1610
Q Serve(g_s), s	20.7	0.0	14.5	19.8	2.4	0.0
Cycle Q Clear(g_c), s	20.7	0.0	14.5	19.8	2.4	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1179		328	1991	1223	
V/C Ratio(X)	0.87		1.38	0.65	0.13	
Avail Cap(c_a), veh/h	1376		328	2189	1223	
HCM Platoon Ratio	1.33	1.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.35	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	21.1	0.0	32.8	12.5	17.8	0.0
Incr Delay (d2), s/veh	2.0	0.0	188.2	0.6	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	0.0	22.8	6.1	0.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.1	0.0	221.0	13.1	18.0	0.0
LnGrp LOS	C		F	B	B	
Approach Vol, veh/h	1028	A		1737	157	A
Approach Delay, s/veh	23.1			67.2	18.0	
Approach LOS	C			E	B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	18.0	30.6				48.6	31.4
Change Period (Y+Rc), s	3.5	4.5				4.5	3.5
Max Green Setting (Gmax), s	14.5	30.5				48.5	23.5
Max Q Clear Time (g_c+I1), s	16.5	22.7				21.8	4.4
Green Ext Time (p_c), s	0.0	3.4				9.4	0.2

Intersection Summary		
HCM 6th Ctrl Delay		49.0
HCM 6th LOS		D

Notes

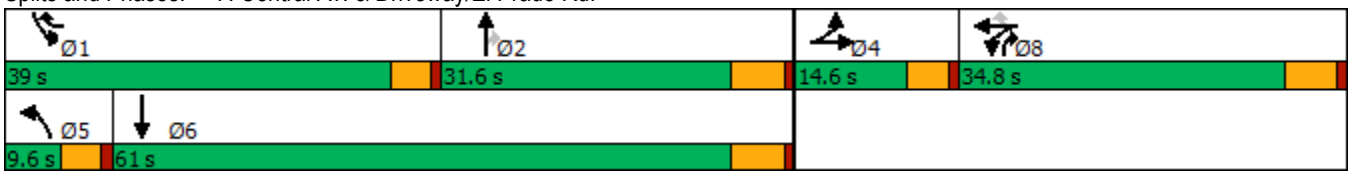
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

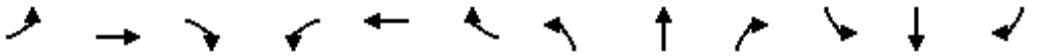
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	18	13	634	3	504	6	801	889	670	904
Future Volume (vph)	18	13	634	3	504	6	801	889	670	904
Turn Type	Split	NA	Split	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	4	4	8	8	1	5	2	8	1	6
Permitted Phases					8			2		
Detector Phase	4	4	8	8	1	5	2	8	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	34.8	34.8	9.6	9.6	27.8	34.8	9.6	24.8
Total Split (s)	14.6	14.6	34.8	34.8	39.0	9.6	31.6	34.8	39.0	61.0
Total Split (%)	12.2%	12.2%	29.0%	29.0%	32.5%	8.0%	26.3%	29.0%	32.5%	50.8%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	5.8	4.6	4.6	5.8	5.8	4.6	5.8
Lead/Lag					Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 114.2
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Central Av. & Driveway/El Prado Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	13	8	634	3	504	6	801	889	670	904	19
Future Volume (veh/h)	18	13	8	634	3	504	6	801	889	670	904	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	19	14	3	662	0	270	6	834	586	698	942	18
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	97	86	18	731	0	807	12	778	689	491	2599	50
Arrive On Green	0.06	0.06	0.06	0.23	0.00	0.23	0.01	0.23	0.23	0.30	0.52	0.52
Sat Flow, veh/h	1619	1437	308	3238	0	1523	1619	3420	1515	1619	4964	95
Grp Volume(v), veh/h	19	0	17	662	0	270	6	834	586	698	621	339
Grp Sat Flow(s),veh/h/ln	1619	0	1745	1619	0	1523	1619	1710	1515	1619	1638	1783
Q Serve(g_s), s	1.3	0.0	1.0	22.6	0.0	11.5	0.4	25.8	25.8	34.4	12.6	12.7
Cycle Q Clear(g_c), s	1.3	0.0	1.0	22.6	0.0	11.5	0.4	25.8	25.8	34.4	12.6	12.7
Prop In Lane	1.00		0.18	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	97	0	104	731	0	807	12	778	689	491	1715	933
V/C Ratio(X)	0.20	0.00	0.16	0.91	0.00	0.33	0.49	1.07	0.85	1.42	0.36	0.36
Avail Cap(c_a), veh/h	143	0	154	828	0	853	71	778	689	491	1715	933
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.7	0.0	50.6	42.7	0.0	15.3	56.0	43.8	24.0	39.5	15.9	15.9
Incr Delay (d2), s/veh	0.4	0.0	0.3	11.7	0.0	0.1	10.7	53.1	12.5	200.9	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.5	9.8	0.0	3.6	0.2	16.2	18.7	40.4	4.5	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.1	0.0	50.9	54.5	0.0	15.4	66.7	96.9	36.5	240.4	16.5	17.0
LnGrp LOS	D	A	D	D	A	B	E	F	D	F	B	B
Approach Vol, veh/h		36			932			1426			1658	
Approach Delay, s/veh		51.0			43.1			72.0			110.9	
Approach LOS		D			D			E			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	39.0	31.6		11.4	5.5	65.1		31.4				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		5.8				
Max Green Setting (Gmax), s	34.4	25.8		10.0	5.0	55.2		29.0				
Max Q Clear Time (g_c+I1), s	36.4	27.8		3.3	2.4	14.7		24.6				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	6.7		1.0				

Intersection Summary	
HCM 6th Ctrl Delay	81.1
HCM 6th LOS	F

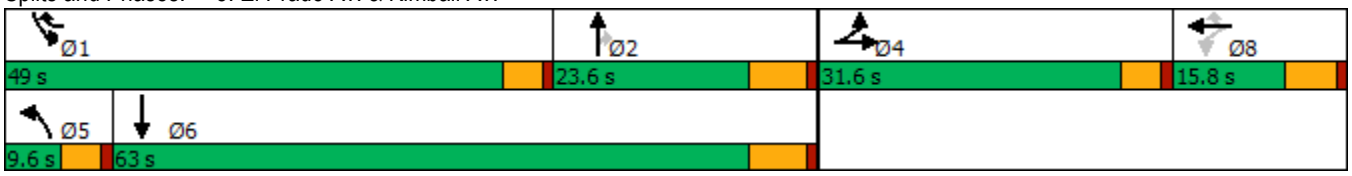
Notes

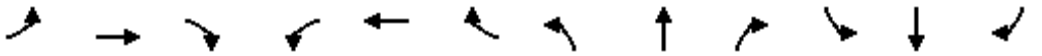
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	34	14	26	5	812	4	270	34	967	341
Future Volume (vph)	34	14	26	5	812	4	270	34	967	341
Turn Type	Split	NA	Perm	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	4	4		8	1	5	2		1	6
Permitted Phases			8		8			2		
Detector Phase	4	4	8	8	1	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	15.8	15.8	9.6	9.6	16.2	16.2	9.6	24.2
Total Split (s)	31.6	31.6	15.8	15.8	49.0	9.6	23.6	23.6	49.0	63.0
Total Split (%)	26.3%	26.3%	13.2%	13.2%	40.8%	8.0%	19.7%	19.7%	40.8%	52.5%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		5.8	4.6	4.6	6.2	6.2	4.6	6.2
Lead/Lag					Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 94.2
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: El Prado Av. & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	14	5	26	5	812	4	270	34	967	341	12
Future Volume (veh/h)	34	14	5	26	5	812	4	270	34	967	341	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	36	15	3	28	5	419	4	287	32	1029	363	12
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	125	113	23	145	26	823	9	311	263	713	2052	68
Arrive On Green	0.08	0.08	0.08	0.10	0.10	0.10	0.01	0.17	0.17	0.44	0.61	0.61
Sat Flow, veh/h	1619	1456	291	1465	262	1518	1619	1800	1525	1619	3375	111
Grp Volume(v), veh/h	36	0	18	33	0	419	4	287	32	1029	183	192
Grp Sat Flow(s),veh/h/ln	1619	0	1748	1727	0	1518	1619	1800	1525	1619	1710	1777
Q Serve(g_s), s	2.1	0.0	1.0	1.8	0.0	10.0	0.2	15.8	1.8	44.4	4.7	4.8
Cycle Q Clear(g_c), s	2.1	0.0	1.0	1.8	0.0	10.0	0.2	15.8	1.8	44.4	4.7	4.8
Prop In Lane	1.00		0.17	0.85		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	125	0	135	171	0	823	9	311	263	713	1039	1080
V/C Ratio(X)	0.29	0.00	0.13	0.19	0.00	0.51	0.47	0.92	0.12	1.44	0.18	0.18
Avail Cap(c_a), veh/h	434	0	468	171	0	823	80	311	263	713	1039	1080
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	0.0	43.4	41.7	0.0	14.7	50.0	41.0	35.2	28.2	8.7	8.7
Incr Delay (d2), s/veh	1.2	0.0	0.4	0.5	0.0	0.5	14.2	34.8	0.9	207.2	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.4	0.8	0.0	5.5	0.1	9.6	0.7	56.2	1.6	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.1	0.0	43.8	42.2	0.0	15.3	64.2	75.9	36.2	235.4	9.1	9.0
LnGrp LOS	D	A	D	D	A	B	E	E	D	F	A	A
Approach Vol, veh/h		54			452			323			1404	
Approach Delay, s/veh		44.7			17.2			71.8			174.9	
Approach LOS		D			B			E			F	

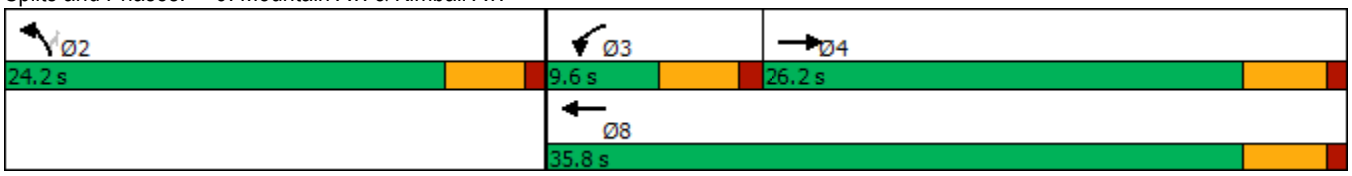
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	49.0	23.6		12.4	5.1	67.5		15.8				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		5.8				
Max Green Setting (Gmax), s	44.4	17.4		27.0	5.0	56.8		10.0				
Max Q Clear Time (g_c+I1), s	46.4	17.8		4.1	2.2	6.8		12.0				
Green Ext Time (p_c), s	0.0	0.0		0.1	0.0	2.0		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		124.9
HCM 6th LOS		F

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	1004	25	736	120	85
Future Volume (vph)	1004	25	736	120	85
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	4	3	8	2	
Permitted Phases					2
Detector Phase	4	3	8	2	2
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	24.7	9.6	14.7	23.6	23.6
Total Split (s)	26.2	9.6	35.8	24.2	24.2
Total Split (%)	43.7%	16.0%	59.7%	40.3%	40.3%
Yellow Time (s)	3.7	3.6	3.7	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.6	4.7	4.6	4.6
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	Max	None	Max	None	None

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 52.4
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 9: Mountain Av. & Kimball Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1004	75	25	736	120	85
Future Volume (veh/h)	1004	75	25	736	120	85
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1800	1800	1700	1800	1700	1800
Adj Flow Rate, veh/h	1080	79	27	791	129	72
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1619	118	51	2137	305	287
Arrive On Green	0.50	0.50	0.03	0.62	0.19	0.19
Sat Flow, veh/h	3321	236	1619	3510	1619	1525
Grp Volume(v), veh/h	571	588	27	791	129	72
Grp Sat Flow(s),veh/h/ln	1710	1757	1619	1710	1619	1525
Q Serve(g_s), s	12.5	12.5	0.8	5.6	3.5	2.0
Cycle Q Clear(g_c), s	12.5	12.5	0.8	5.6	3.5	2.0
Prop In Lane		0.13	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	857	881	51	2137	305	287
V/C Ratio(X)	0.67	0.67	0.53	0.37	0.42	0.25
Avail Cap(c_a), veh/h	857	881	163	2137	637	601
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.3	9.3	23.8	4.6	17.8	17.2
Incr Delay (d2), s/veh	4.1	4.0	3.2	0.5	0.9	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	3.9	0.3	1.0	1.1	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.4	13.3	27.0	5.1	18.7	17.7
LnGrp LOS	B	B	C	A	B	B
Approach Vol, veh/h	1159			818	201	
Approach Delay, s/veh	13.3			5.8	18.4	
Approach LOS	B			A	B	

Timer - Assigned Phs	2	3	4	8
Phs Duration (G+Y+Rc), s	14.0	6.2	29.6	35.8
Change Period (Y+Rc), s	4.6	4.6	* 4.7	* 4.7
Max Green Setting (Gmax), s	19.6	5.0	* 22	* 31
Max Q Clear Time (g_c+I1), s	5.5	2.8	14.5	7.6
Green Ext Time (p_c), s	0.4	0.0	3.8	5.2

Intersection Summary	
HCM 6th Ctrl Delay	11.0
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	5.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	51	62	21	48	51	38
Future Vol, veh/h	51	62	21	48	51	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	61	74	25	57	61	45

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	221	54	0	0	82	0
Stage 1	54	-	-	-	-	-
Stage 2	167	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	772	1019	-	-	1528	-
Stage 1	974	-	-	-	-	-
Stage 2	867	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	741	1019	-	-	1528	-
Mov Cap-2 Maneuver	736	-	-	-	-	-
Stage 1	974	-	-	-	-	-
Stage 2	832	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	4.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	736	1019	1528	-
HCM Lane V/C Ratio	-	-	0.082	0.072	0.04	-
HCM Control Delay (s)	-	-	10.3	8.8	7.5	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0.2	0.1	-

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	19	8	122	32	40	504
Future Vol, veh/h	19	8	122	32	40	504
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	22	9	142	37	47	586

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	841	161	0	0	179	0
Stage 1	161	-	-	-	-	-
Stage 2	680	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	338	889	-	-	1409	-
Stage 1	873	-	-	-	-	-
Stage 2	507	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	321	889	-	-	1409	-
Mov Cap-2 Maneuver	321	-	-	-	-	-
Stage 1	873	-	-	-	-	-
Stage 2	482	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.9	0	0.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	396	1409	-
HCM Lane V/C Ratio	-	-	0.079	0.033	-
HCM Control Delay (s)	-	-	14.9	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Intersection	
Intersection Delay, s/veh	15.7
Intersection LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1	0	128	523	1
Future Vol, veh/h	0	1	0	128	523	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	1	0	139	568	1
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	8.5	8.7	17.4
HCM LOS	A	A	C

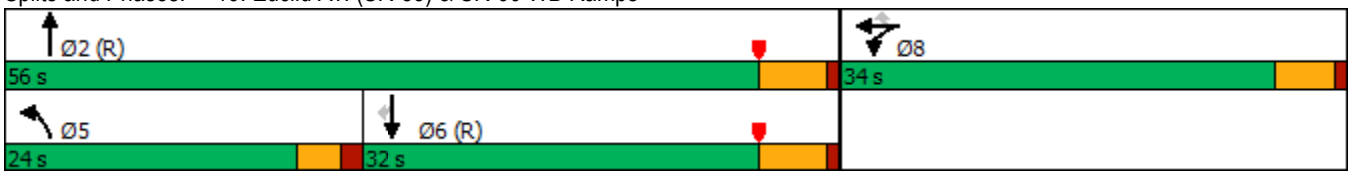
Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	100%
Vol Thru, %	100%	0%	0%
Vol Right, %	0%	100%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1	128	524
LT Vol	0	0	523
Through Vol	1	0	0
RT Vol	0	128	1
Lane Flow Rate	1	139	570
Geometry Grp	1	1	1
Degree of Util (X)	0.002	0.18	0.705
Departure Headway (Hd)	5.442	4.649	4.454
Convergence, Y/N	Yes	Yes	Yes
Cap	655	771	814
Service Time	3.494	2.685	2.454
HCM Lane V/C Ratio	0.002	0.18	0.7
HCM Control Delay	8.5	8.7	17.4
HCM Lane LOS	A	A	C
HCM 95th-tile Q	0	0.7	6

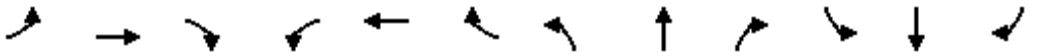
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	649	6	415	344	1106	1034	502
Future Volume (vph)	649	6	415	344	1106	1034	502
Turn Type	Split	NA	Perm	Prot	NA	NA	Perm
Protected Phases	8	8		5	2	6	
Permitted Phases			8				6
Detector Phase	8	8	8	5	2	6	6
Switch Phase							
Minimum Initial (s)	6.0	6.0	6.0	5.0	10.0	10.0	10.0
Minimum Split (s)	11.0	11.0	11.0	9.5	22.5	22.5	22.5
Total Split (s)	34.0	34.0	34.0	24.0	56.0	32.0	32.0
Total Split (%)	37.8%	37.8%	37.8%	26.7%	62.2%	35.6%	35.6%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.5	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.5	5.5	5.5	5.5
Lead/Lag				Lead		Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 63 (70%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 19: Euclid Av. (SR-83) & SR-60 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	649	6	415	344	1106	0	0	1034	502
Future Volume (veh/h)	0	0	0	649	6	415	344	1106	0	0	1034	502
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				756	0	169	358	1152	0	0	1077	318
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				864	0	384	383	2327	0	0	1383	617
Arrive On Green				0.24	0.00	0.24	0.42	1.00	0.00	0.00	0.38	0.38
Sat Flow, veh/h				3619	0	1608	1810	3705	0	0	3705	1610
Grp Volume(v), veh/h				756	0	169	358	1152	0	0	1077	318
Grp Sat Flow(s),veh/h/ln				1810	0	1608	1810	1805	0	0	1805	1610
Q Serve(g_s), s				18.1	0.0	8.0	17.0	0.0	0.0	0.0	23.6	13.7
Cycle Q Clear(g_c), s				18.1	0.0	8.0	17.0	0.0	0.0	0.0	23.6	13.7
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				864	0	384	383	2327	0	0	1383	617
V/C Ratio(X)				0.87	0.00	0.44	0.94	0.50	0.00	0.00	0.78	0.52
Avail Cap(c_a), veh/h				1166	0	518	392	2327	0	0	1383	617
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.38	0.38	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				33.0	0.0	29.1	25.4	0.0	0.0	0.0	24.4	21.3
Incr Delay (d2), s/veh				4.7	0.0	0.3	14.5	0.3	0.0	0.0	4.4	3.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.0	0.0	3.0	6.5	0.1	0.0	0.0	10.1	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				37.7	0.0	29.4	39.9	0.3	0.0	0.0	28.8	24.4
LnGrp LOS				D	A	C	D	A	A	A	C	C
Approach Vol, veh/h					925			1510			1395	
Approach Delay, s/veh					36.2			9.7			27.8	
Approach LOS					D			A			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	63.5		23.5	40.0		26.5						
Change Period (Y+Rc), s	5.5		4.5	5.5		5.0						
Max Green Setting (Gmax), s	50.5		19.5	26.5		29.0						
Max Q Clear Time (g_c+I1), s	2.0		19.0	25.6		20.1						
Green Ext Time (p_c), s	15.7		0.0	0.7		1.4						

Intersection Summary		
HCM 6th Ctrl Delay	22.7	
HCM 6th LOS	C	

Notes

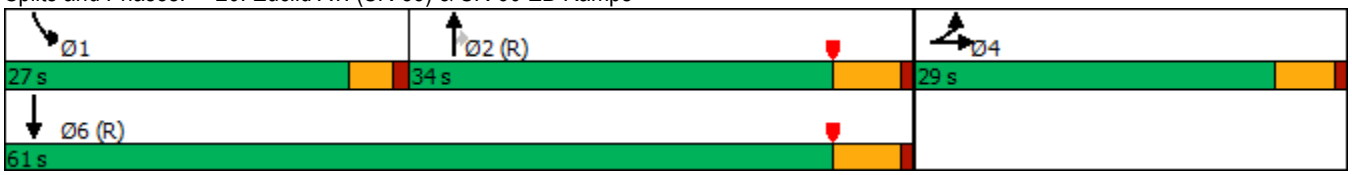
User approved volume balancing among the lanes for turning movement.

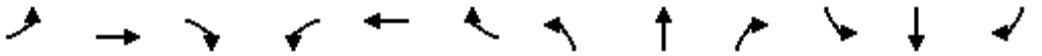
Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	424	3	1026	625	383	1300
Future Volume (vph)	424	3	1026	625	383	1300
Turn Type	Split	NA	NA	Perm	Prot	NA
Protected Phases	4	4	2		1	6
Permitted Phases				2		
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	6.0	6.0	10.0	10.0	5.0	10.0
Minimum Split (s)	11.0	11.0	22.5	22.5	9.0	22.5
Total Split (s)	29.0	29.0	34.0	34.0	27.0	61.0
Total Split (%)	32.2%	32.2%	37.8%	37.8%	30.0%	67.8%
Yellow Time (s)	4.0	4.0	4.5	4.5	3.0	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.5	5.5	4.0	5.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Min	C-Min	None	C-Min

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 20: Euclid Av. (SR-83) & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	424	3	388	0	0	0	0	1026	625	383	1300	0
Future Volume (veh/h)	424	3	388	0	0	0	0	1026	625	383	1300	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	382	74	329				0	1047	444	391	1327	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	474	80	354				0	1254	546	416	2244	0
Arrive On Green	0.26	0.26	0.26				0.00	0.35	0.35	0.46	1.00	0.00
Sat Flow, veh/h	1810	304	1352				0	3705	1572	1810	3705	0
Grp Volume(v), veh/h	382	0	403				0	1047	444	391	1327	0
Grp Sat Flow(s),veh/h/ln	1810	0	1657				0	1805	1572	1810	1805	0
Q Serve(g_s), s	17.8	0.0	21.4				0.0	24.0	23.1	18.5	0.0	0.0
Cycle Q Clear(g_c), s	17.8	0.0	21.4				0.0	24.0	23.1	18.5	0.0	0.0
Prop In Lane	1.00		0.82				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	474	0	434				0	1254	546	416	2244	0
V/C Ratio(X)	0.81	0.00	0.93				0.00	0.84	0.81	0.94	0.59	0.00
Avail Cap(c_a), veh/h	483	0	442				0	1254	546	462	2244	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.54	0.54	0.38	0.38	0.00
Uniform Delay (d), s/veh	31.1	0.0	32.4				0.0	27.0	26.7	23.7	0.0	0.0
Incr Delay (d2), s/veh	8.9	0.0	25.4				0.0	3.7	7.2	12.6	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	0.0	11.0				0.0	10.2	9.1	6.6	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.9	0.0	57.8				0.0	30.7	33.9	36.3	0.4	0.0
LnGrp LOS	D	A	E				A	C	C	D	A	A
Approach Vol, veh/h		785						1491			1718	
Approach Delay, s/veh		49.1						31.7			8.6	
Approach LOS		D						C			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	24.7	36.8		28.6		61.4
Change Period (Y+Rc), s	4.0	5.5		5.0		5.5
Max Green Setting (Gmax), s	23.0	28.5		24.0		55.5
Max Q Clear Time (g_c+I1), s	20.5	26.0		23.4		2.0
Green Ext Time (p_c), s	0.2	2.1		0.2		20.2

Intersection Summary	
HCM 6th Ctrl Delay	25.2
HCM 6th LOS	C

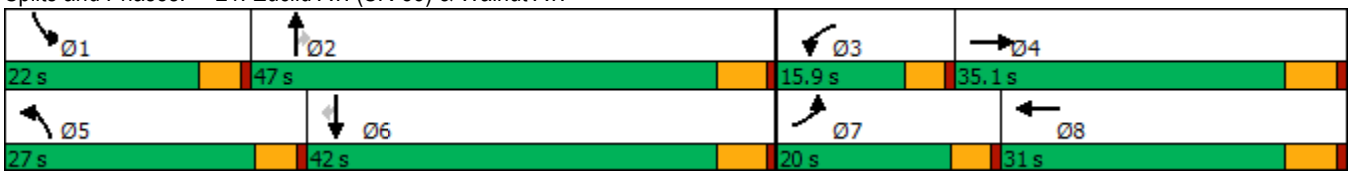
Notes

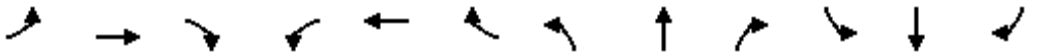
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	109	377	71	377	190	1374	75	268	1229	149
Future Volume (vph)	109	377	71	377	190	1374	75	268	1229	149
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.8	9.6	29.8	9.6	27.4	27.4	9.6	29.4	29.4
Total Split (s)	20.0	35.1	15.9	31.0	27.0	47.0	47.0	22.0	42.0	42.0
Total Split (%)	16.7%	29.3%	13.3%	25.8%	22.5%	39.2%	39.2%	18.3%	35.0%	35.0%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 110.4
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 21: Euclid Av. (SR-83) & Walnut Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	377	143	71	377	143	190	1374	75	268	1229	149
Future Volume (veh/h)	109	377	143	71	377	143	190	1374	75	268	1229	149
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1600	1800	1800
Adj Flow Rate, veh/h	116	401	129	76	401	126	202	1462	53	285	1307	105
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	141	564	179	95	494	153	231	1989	616	344	1859	577
Arrive On Green	0.09	0.22	0.22	0.06	0.19	0.19	0.14	0.40	0.40	0.12	0.38	0.38
Sat Flow, veh/h	1619	2543	808	1619	2554	792	1619	4914	1523	2956	4914	1524
Grp Volume(v), veh/h	116	268	262	76	267	260	202	1462	53	285	1307	105
Grp Sat Flow(s),veh/h/ln	1619	1710	1641	1619	1710	1636	1619	1638	1523	1478	1638	1524
Q Serve(g_s), s	7.2	14.9	15.2	4.8	15.3	15.7	12.6	25.9	2.2	9.7	23.2	4.7
Cycle Q Clear(g_c), s	7.2	14.9	15.2	4.8	15.3	15.7	12.6	25.9	2.2	9.7	23.2	4.7
Prop In Lane	1.00		0.49	1.00		0.48	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	141	379	364	95	330	316	231	1989	616	344	1859	577
V/C Ratio(X)	0.82	0.71	0.72	0.80	0.81	0.82	0.87	0.74	0.09	0.83	0.70	0.18
Avail Cap(c_a), veh/h	243	487	468	178	419	401	353	1989	616	500	1859	577
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.1	36.9	37.0	47.8	39.6	39.8	43.1	25.9	18.9	44.4	27.1	21.3
Incr Delay (d2), s/veh	4.5	3.3	3.8	5.8	8.9	10.5	9.8	2.5	0.3	4.9	2.3	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	6.3	6.2	2.0	7.0	7.0	5.5	9.9	0.8	3.7	9.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.6	40.2	40.8	53.6	48.5	50.3	53.0	28.4	19.1	49.4	29.3	22.0
LnGrp LOS	D	D	D	D	D	D	D	C	B	D	C	C
Approach Vol, veh/h		646			603			1717			1697	
Approach Delay, s/veh		42.3			49.9			31.0			32.2	
Approach LOS		D			D			C			C	

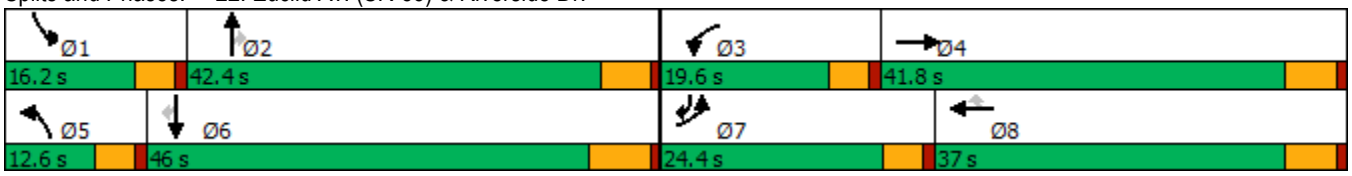
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.6	47.0	10.6	28.6	19.3	44.3	13.6	25.7
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	17.4	41.6	11.3	29.3	22.4	36.6	15.4	25.2
Max Q Clear Time (g_c+I1), s	11.7	27.9	6.8	17.2	14.6	25.2	9.2	17.7
Green Ext Time (p_c), s	0.3	8.2	0.0	2.3	0.2	6.6	0.1	1.7

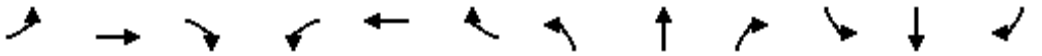
Intersection Summary	
HCM 6th Ctrl Delay	35.5
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	154	467	191	417	65	80	1183	246	142	1040	196
Future Volume (vph)	154	467	191	417	65	80	1183	246	142	1040	196
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4	3	8		5	2		1	6	7
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	25.8	9.6	31.8	31.8	9.6	30.4	30.4	9.6	34.5	9.6
Total Split (s)	24.4	41.8	19.6	37.0	37.0	12.6	42.4	42.4	16.2	46.0	24.4
Total Split (%)	20.3%	34.8%	16.3%	30.8%	30.8%	10.5%	35.3%	35.3%	13.5%	38.3%	20.3%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Euclid Av. (SR-83) & Riverside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	154	467	83	191	417	65	80	1183	246	142	1040	196
Future Volume (veh/h)	154	467	83	191	417	65	80	1183	246	142	1040	196
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	160	486	61	199	434	52	83	1232	202	148	1083	113
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	184	466	58	201	1051	468	102	1045	466	155	1157	683
Arrive On Green	0.11	0.30	0.30	0.12	0.31	0.31	0.06	0.31	0.31	0.10	0.34	0.34
Sat Flow, veh/h	1619	1568	197	1619	3420	1524	1619	3420	1525	1619	3420	1506
Grp Volume(v), veh/h	160	0	547	199	434	52	83	1232	202	148	1083	113
Grp Sat Flow(s),veh/h/ln	1619	0	1765	1619	1710	1524	1619	1710	1525	1619	1710	1506
Q Serve(g_s), s	11.8	0.0	36.0	14.9	12.2	3.0	6.1	37.0	12.8	11.0	37.1	5.4
Cycle Q Clear(g_c), s	11.8	0.0	36.0	14.9	12.2	3.0	6.1	37.0	12.8	11.0	37.1	5.4
Prop In Lane	1.00		0.11	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	184	0	525	201	1051	468	102	1045	466	155	1157	683
V/C Ratio(X)	0.87	0.00	1.04	0.99	0.41	0.11	0.81	1.18	0.43	0.95	0.94	0.17
Avail Cap(c_a), veh/h	265	0	525	201	1051	468	107	1045	466	155	1157	683
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.7	0.0	42.6	53.0	33.3	30.1	56.0	42.0	33.7	54.5	38.8	19.6
Incr Delay (d2), s/veh	14.1	0.0	50.9	61.2	0.3	0.1	32.6	90.6	2.9	58.1	15.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	0.0	22.4	9.3	4.9	1.1	3.3	27.7	5.0	6.9	17.4	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.8	0.0	93.4	114.1	33.5	30.2	88.6	132.7	36.6	112.5	53.8	20.2
LnGrp LOS	E	A	F	F	C	C	F	F	D	F	D	C
Approach Vol, veh/h		707			685			1517			1344	
Approach Delay, s/veh		87.4			56.7			117.5			57.4	
Approach LOS		F			E			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.2	43.5	19.6	41.8	12.2	47.5	18.4	43.0
Change Period (Y+Rc), s	4.6	* 6.5	4.6	5.8	4.6	6.5	4.6	5.8
Max Green Setting (Gmax), s	11.6	* 37	15.0	36.0	8.0	39.5	19.8	31.2
Max Q Clear Time (g_c+I1), s	13.0	39.0	16.9	38.0	8.1	39.1	13.8	14.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.3	0.1	2.5

Intersection Summary	
HCM 6th Ctrl Delay	83.7
HCM 6th LOS	F

Notes

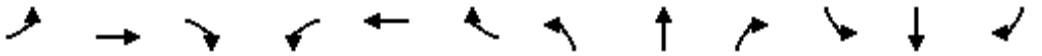
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	98	290	53	81	115	46	1399	232	25	1176	73
Future Volume (vph)	98	290	53	81	115	46	1399	232	25	1176	73
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	28.8	28.8	28.8	33.8	33.8	9.6	24.2	24.2	9.6	31.5	31.5
Total Split (s)	44.0	44.0	44.0	44.0	44.0	12.4	65.0	65.0	11.0	63.6	63.6
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	10.3%	54.2%	54.2%	9.2%	53.0%	53.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	3.6	4.2	4.2	3.6	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8		5.8	4.6	5.2	5.2	4.6	6.5	6.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 108.2
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: Euclid Av. (SR-83) & Chino Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	290	53	81	115	10	46	1399	232	25	1176	73
Future Volume (veh/h)	98	290	53	81	115	10	46	1399	232	25	1176	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	105	312	34	87	124	7	49	1504	178	27	1265	45
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	276	522	442	124	159	8	61	1825	797	41	1784	779
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.04	0.53	0.53	0.03	0.52	0.52
Sat Flow, veh/h	1208	1800	1525	271	547	27	1619	3420	1494	1619	3420	1494
Grp Volume(v), veh/h	105	312	34	218	0	0	49	1504	178	27	1265	45
Grp Sat Flow(s),veh/h/ln	1208	1800	1525	845	0	0	1619	1710	1494	1619	1710	1494
Q Serve(g_s), s	0.0	16.7	1.8	13.2	0.0	0.0	3.4	41.0	7.1	1.9	31.5	1.7
Cycle Q Clear(g_c), s	14.3	16.7	1.8	29.9	0.0	0.0	3.4	41.0	7.1	1.9	31.5	1.7
Prop In Lane	1.00		1.00	0.40		0.03	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	276	522	442	290	0	0	61	1825	797	41	1784	779
V/C Ratio(X)	0.38	0.60	0.08	0.75	0.00	0.00	0.81	0.82	0.22	0.66	0.71	0.06
Avail Cap(c_a), veh/h	337	614	520	361	0	0	113	1825	797	92	1784	779
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.3	34.2	28.9	42.2	0.0	0.0	53.5	21.7	13.8	54.1	20.3	13.2
Incr Delay (d2), s/veh	0.9	1.2	0.1	6.7	0.0	0.0	9.0	4.4	0.6	6.5	2.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	7.2	0.7	6.3	0.0	0.0	1.5	15.2	2.3	0.8	11.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.2	35.3	29.0	48.9	0.0	0.0	62.5	26.1	14.5	60.6	22.8	13.4
LnGrp LOS	C	D	C	D	A	A	E	C	B	E	C	B
Approach Vol, veh/h		451			218			1731			1337	
Approach Delay, s/veh		34.6			48.9			25.9			23.2	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	66.3		38.3	8.8	64.9		38.3				
Change Period (Y+Rc), s	4.6	* 6.5		5.8	4.6	6.5		5.8				
Max Green Setting (Gmax), s	6.4	* 60		38.2	7.8	57.1		38.2				
Max Q Clear Time (g_c+I1), s	3.9	43.0		18.7	5.4	33.5		31.9				
Green Ext Time (p_c), s	0.0	9.6		2.0	0.0	9.0		0.6				

Intersection Summary			
HCM 6th Ctrl Delay		27.3	
HCM 6th LOS		C	

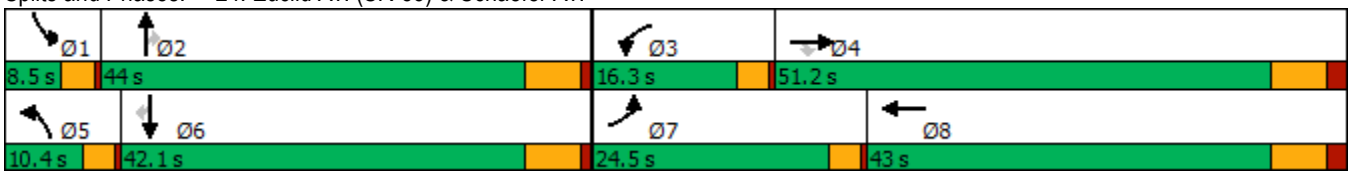
Notes

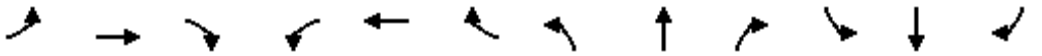
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	297	293	192	80	69	92	1326	84	30	1200	118
Future Volume (vph)	297	293	192	80	69	92	1326	84	30	1200	118
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.5	42.0	42.0	13.5	43.0	8.5	33.0	33.0	8.5	28.0	28.0
Total Split (s)	24.5	51.2	51.2	16.3	43.0	10.4	44.0	44.0	8.5	42.1	42.1
Total Split (%)	20.4%	42.7%	42.7%	13.6%	35.8%	8.7%	36.7%	36.7%	7.1%	35.1%	35.1%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	7.0	7.0	3.5	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 95.8
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Euclid Av. (SR-83) & Schaefer Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	297	293	192	80	69	26	92	1326	84	30	1200	118
Future Volume (veh/h)	297	293	192	80	69	26	92	1326	84	30	1200	118
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	300	296	153	81	70	21	93	1339	67	30	1212	89
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	333	359	305	162	125	37	115	1496	667	48	1354	604
Arrive On Green	0.21	0.20	0.20	0.10	0.09	0.09	0.07	0.44	0.44	0.03	0.40	0.40
Sat Flow, veh/h	1619	1800	1525	1619	1329	399	1619	3420	1525	1619	3420	1525
Grp Volume(v), veh/h	300	296	153	81	0	91	93	1339	67	30	1212	89
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1619	0	1728	1619	1710	1525	1619	1710	1525
Q Serve(g_s), s	15.5	13.5	7.6	4.1	0.0	4.3	4.8	31.0	2.2	1.6	28.4	3.2
Cycle Q Clear(g_c), s	15.5	13.5	7.6	4.1	0.0	4.3	4.8	31.0	2.2	1.6	28.4	3.2
Prop In Lane	1.00		1.00	1.00		0.23	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	333	359	305	162	0	162	115	1496	667	48	1354	604
V/C Ratio(X)	0.90	0.82	0.50	0.50	0.00	0.56	0.81	0.90	0.10	0.62	0.90	0.15
Avail Cap(c_a), veh/h	397	929	787	242	0	726	130	1517	677	95	1441	643
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.2	32.8	30.5	36.5	0.0	37.1	39.2	22.3	14.2	41.1	24.2	16.6
Incr Delay (d2), s/veh	19.0	3.6	1.0	0.9	0.0	2.3	24.1	7.3	0.1	4.8	7.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	5.8	2.7	1.6	0.0	1.8	2.6	11.8	0.7	0.6	11.1	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.1	36.4	31.4	37.4	0.0	39.4	63.3	29.6	14.2	45.9	31.6	16.7
LnGrp LOS	D	D	C	D	A	D	E	C	B	D	C	B
Approach Vol, veh/h		749			172			1499			1331	
Approach Delay, s/veh		41.7			38.5			31.0			30.9	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	43.5	12.0	24.1	9.6	39.9	21.1	15.0
Change Period (Y+Rc), s	3.5	6.0	3.5	7.0	3.5	6.0	3.5	7.0
Max Green Setting (Gmax), s	5.0	38.0	12.8	44.2	6.9	36.1	21.0	36.0
Max Q Clear Time (g_c+I1), s	3.6	33.0	6.1	15.5	6.8	30.4	17.5	6.3
Green Ext Time (p_c), s	0.0	3.4	0.0	1.6	0.0	3.5	0.2	0.3

Intersection Summary	
HCM 6th Ctrl Delay	33.4
HCM 6th LOS	C

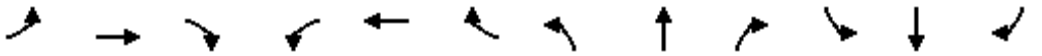
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	281	505	309	44	303	173	1267	74	92	1278	185
Future Volume (vph)	281	505	309	44	303	173	1267	74	92	1278	185
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	46.0	46.0	46.0	49.0	49.0	8.5	29.0	29.0	8.5	40.0	40.0
Total Split (s)	52.0	52.0	52.0	52.0	52.0	17.0	54.8	54.8	13.2	51.0	51.0
Total Split (%)	43.3%	43.3%	43.3%	43.3%	43.3%	14.2%	45.7%	45.7%	11.0%	42.5%	42.5%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 25: Euclid Av. (SR-83) & Edison Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	281	505	309	44	303	50	173	1267	74	92	1278	185
Future Volume (veh/h)	281	505	309	44	303	50	173	1267	74	92	1278	185
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	296	532	243	46	319	47	182	1334	70	97	1345	163
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	265	675	572	135	574	85	182	1418	631	118	1282	572
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.11	0.41	0.41	0.07	0.38	0.38
Sat Flow, veh/h	975	1800	1525	668	1531	225	1619	3420	1522	1619	3420	1525
Grp Volume(v), veh/h	296	532	243	46	0	366	182	1334	70	97	1345	163
Grp Sat Flow(s),veh/h/ln	975	1800	1525	668	0	1756	1619	1710	1522	1619	1710	1525
Q Serve(g_s), s	25.3	31.5	14.2	7.9	0.0	19.7	13.5	44.9	3.4	7.1	45.0	9.0
Cycle Q Clear(g_c), s	45.0	31.5	14.2	39.3	0.0	19.7	13.5	44.9	3.4	7.1	45.0	9.0
Prop In Lane	1.00		1.00	1.00		0.13	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	265	675	572	135	0	659	182	1418	631	118	1283	572
V/C Ratio(X)	1.12	0.79	0.42	0.34	0.00	0.56	1.00	0.94	0.11	0.82	1.05	0.28
Avail Cap(c_a), veh/h	265	675	572	135	0	659	182	1418	631	131	1283	572
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.2	33.3	27.9	50.7	0.0	29.6	53.2	33.7	21.5	54.9	37.5	26.2
Incr Delay (d2), s/veh	90.2	6.2	0.5	1.5	0.0	1.0	66.4	12.4	0.1	27.6	38.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.5	14.2	5.1	1.3	0.0	8.2	8.6	19.4	1.2	3.7	24.2	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	140.5	39.5	28.4	52.2	0.0	30.6	119.7	46.1	21.6	82.5	76.4	26.5
LnGrp LOS	F	D	C	D	A	C	F	D	C	F	F	C
Approach Vol, veh/h		1071			412			1586			1605	
Approach Delay, s/veh		64.9			33.0			53.5			71.7	
Approach LOS		E			C			D			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.2	55.8		52.0	17.0	51.0		52.0				
Change Period (Y+Rc), s	3.5	6.0		7.0	3.5	6.0		7.0				
Max Green Setting (Gmax), s	9.7	48.8		45.0	13.5	45.0		45.0				
Max Q Clear Time (g_c+I1), s	9.1	46.9		47.0	15.5	47.0		41.3				
Green Ext Time (p_c), s	0.0	1.4		0.0	0.0	0.0		0.8				

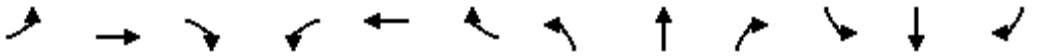
Intersection Summary			
HCM 6th Ctrl Delay		60.6	
HCM 6th LOS		E	

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	39	167	221	8	23	117	1287	18	61	1436	65
Future Volume (vph)	39	167	221	8	23	117	1287	18	61	1436	65
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	46.8	46.8	46.8	46.8	46.8	8.5	30.7	30.7	8.5	37.7	37.7
Total Split (s)	46.8	46.8	46.8	46.8	46.8	14.0	63.2	63.2	10.0	59.2	59.2
Total Split (%)	39.0%	39.0%	39.0%	39.0%	39.0%	11.7%	52.7%	52.7%	8.3%	49.3%	49.3%
Yellow Time (s)	4.3	4.3	4.3	4.3	4.3	3.0	4.7	4.7	3.0	4.7	4.7
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.8	4.8	3.5	5.7	5.7	3.5	5.7	5.7
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 96.9
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 26: Euclid Av. (SR-83) & Eucalyptus Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	167	221	8	23	54	117	1287	18	61	1436	65
Future Volume (veh/h)	39	167	221	8	23	54	117	1287	18	61	1436	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	44	188	132	9	26	58	131	1446	19	69	1613	61
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	216	257	218	140	71	158	161	2113	942	85	1952	853
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.10	0.62	0.62	0.05	0.57	0.57
Sat Flow, veh/h	1261	1800	1525	1017	496	1105	1619	3420	1525	1619	3420	1494
Grp Volume(v), veh/h	44	188	132	9	0	84	131	1446	19	69	1613	61
Grp Sat Flow(s),veh/h/ln	1261	1800	1525	1017	0	1601	1619	1710	1525	1619	1710	1494
Q Serve(g_s), s	2.5	7.5	6.1	0.6	0.0	3.6	5.9	21.0	0.4	3.2	28.7	1.4
Cycle Q Clear(g_c), s	6.0	7.5	6.1	8.1	0.0	3.6	5.9	21.0	0.4	3.2	28.7	1.4
Prop In Lane	1.00		1.00	1.00		0.69	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	216	257	218	140	0	229	161	2113	942	85	1952	853
V/C Ratio(X)	0.20	0.73	0.61	0.06	0.00	0.37	0.81	0.68	0.02	0.81	0.83	0.07
Avail Cap(c_a), veh/h	742	1008	855	564	0	897	227	2623	1170	140	2441	1066
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.8	30.8	30.1	34.6	0.0	29.1	33.1	9.5	5.5	35.1	13.1	7.2
Incr Delay (d2), s/veh	0.3	3.0	2.0	0.1	0.0	0.7	12.3	0.5	0.0	12.6	2.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.3	2.2	0.2	0.0	1.3	2.6	5.1	0.1	1.4	8.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.1	33.7	32.2	34.8	0.0	29.8	45.3	10.0	5.6	47.8	15.1	7.2
LnGrp LOS	C	C	C	C	A	C	D	B	A	D	B	A
Approach Vol, veh/h		364			93			1596			1743	
Approach Delay, s/veh		33.0			30.3			12.9			16.1	
Approach LOS		C			C			B			B	

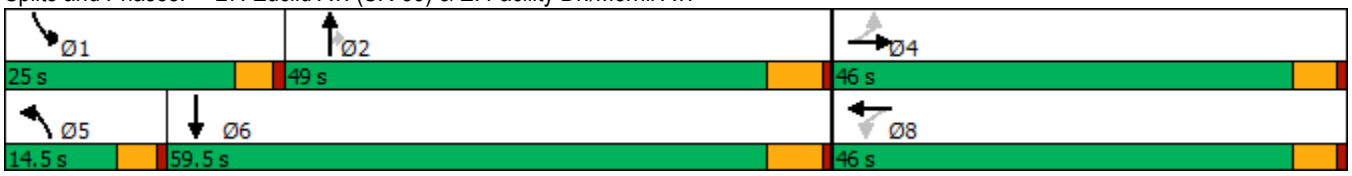
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	52.0		15.5	11.0	48.5		15.5				
Change Period (Y+Rc), s	3.5	5.7		4.8	3.5	5.7		4.8				
Max Green Setting (Gmax), s	6.5	57.5		42.0	10.5	53.5		42.0				
Max Q Clear Time (g_c+I1), s	5.2	23.0		9.5	7.9	30.7		10.1				
Green Ext Time (p_c), s	0.0	12.3		1.2	0.0	12.1		0.4				

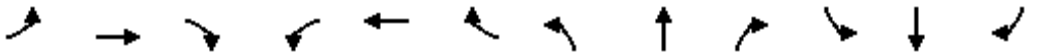
Intersection Summary			
HCM 6th Ctrl Delay		16.7	
HCM 6th LOS		B	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	12	31	254	2	4	1277	260	288	1323
Future Volume (vph)	12	31	254	2	4	1277	260	288	1323
Turn Type	Perm	NA	Perm	NA	Prot	NA	Perm	Prot	NA
Protected Phases		4		8	5	2		1	6
Permitted Phases	4		8				2		
Detector Phase	4	4	8	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	15.0	15.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	10.0	10.0	46.0	46.0	14.5	28.0	28.0	14.5	28.0
Total Split (s)	46.0	46.0	46.0	46.0	14.5	49.0	49.0	25.0	59.5
Total Split (%)	38.3%	38.3%	38.3%	38.3%	12.1%	40.8%	40.8%	20.8%	49.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.5	5.0	5.0	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	4.5	6.0	6.0	4.5	6.0
Lead/Lag					Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 27: Euclid Av. (SR-83) & E. Facility Dr./Merrill Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	31	13	254	2	204	4	1277	260	288	1323	1
Future Volume (veh/h)	12	31	13	254	2	204	4	1277	260	288	1323	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	13	34	13	279	2	214	4	1403	221	316	1454	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	131	327	117	328	2	216	17	1226	547	277	1774	0
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.01	0.36	0.36	0.17	0.52	0.00
Sat Flow, veh/h	276	958	341	824	6	632	1619	3420	1525	1619	3510	0
Grp Volume(v), veh/h	60	0	0	495	0	0	4	1403	221	316	1454	0
Grp Sat Flow(s),veh/h/ln	1575	0	0	1462	0	0	1619	1710	1525	1619	1710	0
Q Serve(g_s), s	0.0	0.0	0.0	37.6	0.0	0.0	0.3	43.0	13.0	20.5	42.7	0.0
Cycle Q Clear(g_c), s	2.8	0.0	0.0	40.4	0.0	0.0	0.3	43.0	13.0	20.5	42.7	0.0
Prop In Lane	0.22		0.22	0.56		0.43	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	575	0	0	547	0	0	17	1226	547	277	1774	0
V/C Ratio(X)	0.10	0.00	0.00	0.91	0.00	0.00	0.24	1.14	0.40	1.14	0.82	0.00
Avail Cap(c_a), veh/h	575	0	0	547	0	0	135	1226	547	277	1774	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.9	0.0	0.0	39.0	0.0	0.0	58.9	38.5	28.9	49.7	24.2	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	18.3	0.0	0.0	2.7	75.2	0.5	98.2	3.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.0	16.3	0.0	0.0	0.1	29.4	4.6	15.4	16.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.0	0.0	0.0	57.3	0.0	0.0	61.6	113.7	29.4	147.9	27.4	0.0
LnGrp LOS	C	A	A	E	A	A	E	F	C	F	C	A
Approach Vol, veh/h		60			495			1628			1770	
Approach Delay, s/veh		27.0			57.3			102.2			48.9	
Approach LOS		C			E			F			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	25.0	49.0		46.0	5.7	68.3		46.0				
Change Period (Y+Rc), s	4.5	6.0		5.0	4.5	6.0		5.0				
Max Green Setting (Gmax), s	20.5	43.0		41.0	10.0	53.5		41.0				
Max Q Clear Time (g_c+I1), s	22.5	45.0		4.8	2.3	44.7		42.4				
Green Ext Time (p_c), s	0.0	0.0		0.2	0.0	5.6		0.0				

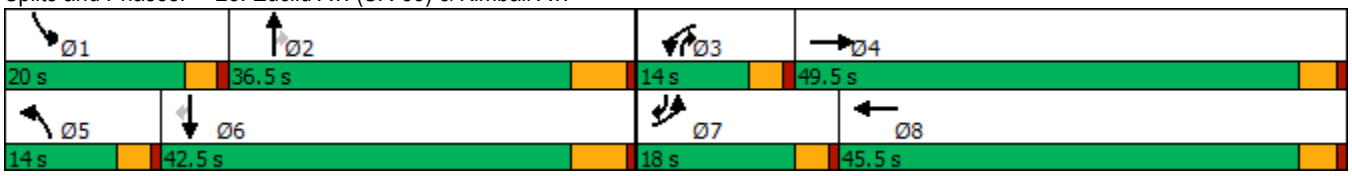
Intersection Summary												
HCM 6th Ctrl Delay			71.5									
HCM 6th LOS			E									

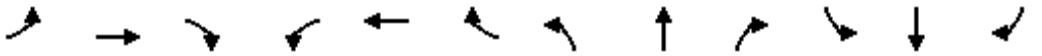
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	366	807	80	352	75	919	45	449	910	246
Future Volume (vph)	366	807	80	352	75	919	45	449	910	246
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	3	8	5	2	3	1	6	7
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	7
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	14.0	49.5	14.0	45.5	14.0	36.0	14.0	9.0	33.0	14.0
Total Split (s)	18.0	49.5	14.0	45.5	14.0	36.5	14.0	20.0	42.5	18.0
Total Split (%)	15.0%	41.3%	11.7%	37.9%	11.7%	30.4%	11.7%	16.7%	35.4%	15.0%
Yellow Time (s)	3.0	3.5	3.0	3.5	3.0	5.0	3.0	3.0	5.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.5	4.0	4.5	4.0	6.0	4.0	4.0	6.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	None	Min	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 108.9
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 28: Euclid Av. (SR-83) & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	366	807	65	80	352	199	75	919	45	449	910	246
Future Volume (veh/h)	366	807	65	80	352	199	75	919	45	449	910	246
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1600	1800	1800	1700	1800	1800	1700	1800	1800	1600	1800	1800
Adj Flow Rate, veh/h	377	832	64	82	363	167	77	947	31	463	938	156
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	387	988	76	138	599	271	136	975	565	442	1199	734
Arrive On Green	0.13	0.31	0.31	0.09	0.26	0.26	0.08	0.29	0.29	0.15	0.35	0.35
Sat Flow, veh/h	2956	3218	247	1619	2288	1036	1619	3420	1525	2956	3420	1524
Grp Volume(v), veh/h	377	442	454	82	270	260	77	947	31	463	938	156
Grp Sat Flow(s),veh/h/ln	1478	1710	1755	1619	1710	1614	1619	1710	1525	1478	1710	1524
Q Serve(g_s), s	13.6	25.8	25.9	5.2	14.8	15.2	4.9	29.3	1.4	16.0	26.3	6.3
Cycle Q Clear(g_c), s	13.6	25.8	25.9	5.2	14.8	15.2	4.9	29.3	1.4	16.0	26.3	6.3
Prop In Lane	1.00		0.14	1.00		0.64	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	387	525	539	138	447	422	136	975	565	442	1199	734
V/C Ratio(X)	0.97	0.84	0.84	0.59	0.60	0.62	0.57	0.97	0.05	1.05	0.78	0.21
Avail Cap(c_a), veh/h	387	719	738	151	655	618	151	975	565	442	1199	734
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.3	34.6	34.6	47.1	34.6	34.8	47.1	37.8	21.6	45.5	31.1	16.0
Incr Delay (d2), s/veh	38.8	6.6	6.5	2.9	0.5	0.5	1.7	22.1	0.0	55.7	3.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	11.1	11.4	2.2	6.0	5.8	1.9	14.3	0.5	8.9	10.5	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	85.1	41.2	41.1	50.1	35.1	35.3	48.8	59.9	21.7	101.2	34.5	16.2
LnGrp LOS	F	D	D	D	D	D	D	E	C	F	C	B
Approach Vol, veh/h		1273			612			1055			1557	
Approach Delay, s/veh		54.2			37.2			57.9			52.5	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	36.5	13.1	37.4	13.0	43.5	18.0	32.5
Change Period (Y+Rc), s	4.0	6.0	4.0	4.5	4.0	6.0	4.0	4.5
Max Green Setting (Gmax), s	16.0	30.5	10.0	45.0	10.0	36.5	14.0	41.0
Max Q Clear Time (g_c+I1), s	18.0	31.3	7.2	27.9	6.9	28.3	15.6	17.2
Green Ext Time (p_c), s	0.0	0.0	0.0	4.8	0.0	3.8	0.0	1.8

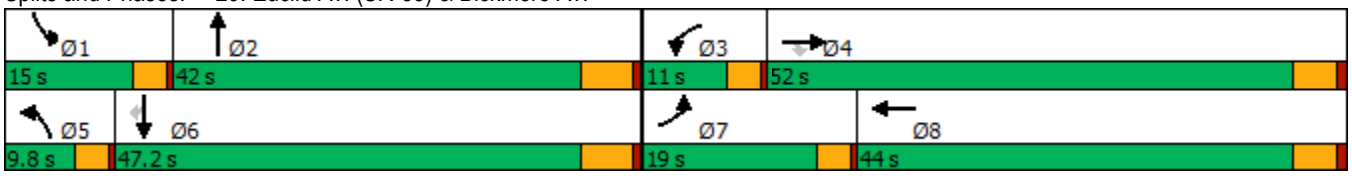
Intersection Summary	
HCM 6th Ctrl Delay	52.2
HCM 6th LOS	D

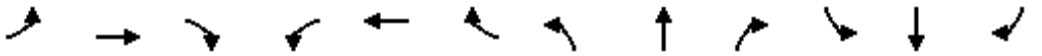
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	133	109	66	52	30	53	709	111	780	175
Future Volume (vph)	133	109	66	52	30	53	709	111	780	175
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.5	44.0	44.0	8.5	44.0	8.5	26.5	8.5	30.5	30.5
Total Split (s)	19.0	52.0	52.0	11.0	44.0	9.8	42.0	15.0	47.2	47.2
Total Split (%)	15.8%	43.3%	43.3%	9.2%	36.7%	8.2%	35.0%	12.5%	39.3%	39.3%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	3.0	4.5	3.0	4.5	4.5
All-Red Time (s)	0.5	1.0	1.0	0.5	1.0	0.5	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.5	3.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 75.3
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 29: Euclid Av. (SR-83) & Bickmore Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	109	66	52	30	71	53	709	96	111	780	175
Future Volume (veh/h)	133	109	66	52	30	71	53	709	96	111	780	175
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	145	118	57	57	33	49	58	771	81	121	848	158
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	182	289	245	90	68	101	91	1006	106	151	1227	547
Arrive On Green	0.11	0.16	0.16	0.06	0.10	0.10	0.06	0.32	0.32	0.09	0.36	0.36
Sat Flow, veh/h	1619	1800	1525	1619	654	971	1619	3123	328	1619	3420	1525
Grp Volume(v), veh/h	145	118	57	57	0	82	58	422	430	121	848	158
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1619	0	1625	1619	1710	1741	1619	1710	1525
Q Serve(g_s), s	4.1	2.8	1.5	1.6	0.0	2.3	1.7	10.5	10.5	3.5	10.0	3.5
Cycle Q Clear(g_c), s	4.1	2.8	1.5	1.6	0.0	2.3	1.7	10.5	10.5	3.5	10.0	3.5
Prop In Lane	1.00		1.00	1.00		0.60	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	182	289	245	90	0	169	91	551	561	151	1227	547
V/C Ratio(X)	0.80	0.41	0.23	0.63	0.00	0.49	0.64	0.77	0.77	0.80	0.69	0.29
Avail Cap(c_a), veh/h	529	1783	1511	256	0	1336	215	1315	1339	392	3006	1341
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.5	17.9	17.4	21.9	0.0	20.1	21.9	14.5	14.5	21.1	13.0	10.9
Incr Delay (d2), s/veh	3.0	0.3	0.2	2.7	0.0	0.8	2.7	0.9	0.8	3.8	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	1.0	0.5	0.6	0.0	0.8	0.6	2.9	2.9	1.2	2.6	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.5	18.2	17.6	24.6	0.0	20.9	24.6	15.3	15.3	24.9	13.2	11.0
LnGrp LOS	C	B	B	C	A	C	C	B	B	C	B	B
Approach Vol, veh/h		320			139			910			1127	
Approach Delay, s/veh		20.5			22.4			15.9			14.2	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	20.8	6.1	12.6	6.2	22.5	8.8	9.9
Change Period (Y+Rc), s	3.5	5.5	3.5	5.0	3.5	5.5	3.5	5.0
Max Green Setting (Gmax), s	11.5	36.5	7.5	47.0	6.3	41.7	15.5	39.0
Max Q Clear Time (g_c+I1), s	5.5	12.5	3.6	4.8	3.7	12.0	6.1	4.3
Green Ext Time (p_c), s	0.1	2.7	0.0	0.5	0.0	3.6	0.1	0.3

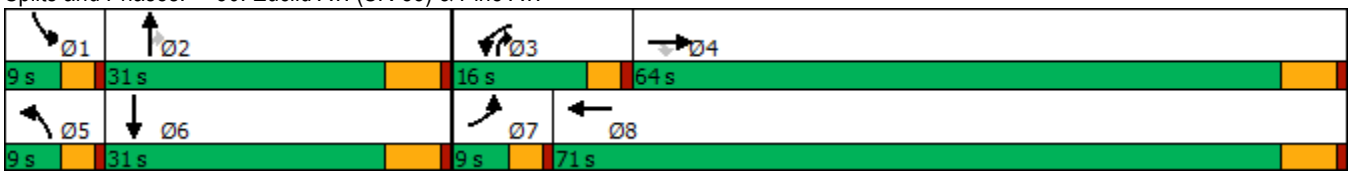
Intersection Summary	
HCM 6th Ctrl Delay	16.1
HCM 6th LOS	B

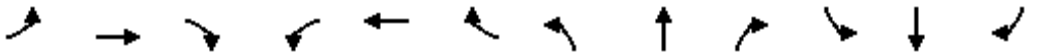
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	5	454	97	581	81	63	765	1172	99	820
Future Volume (vph)	5	454	97	581	81	63	765	1172	99	820
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4		3	8	5	2	3	1	6
Permitted Phases			4					2		
Detector Phase	7	4	4	3	8	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.0	43.0	43.0	9.0	45.0	9.0	11.0	9.0	9.0	29.0
Total Split (s)	9.0	64.0	64.0	16.0	71.0	9.0	31.0	16.0	9.0	31.0
Total Split (%)	7.5%	53.3%	53.3%	13.3%	59.2%	7.5%	25.8%	13.3%	7.5%	25.8%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0	3.0	3.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	4.0	6.0	4.0	4.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 92.7
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 30: Euclid Av. (SR-83) & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	454	97	581	81	63	63	765	1172	99	820	4
Future Volume (veh/h)	5	454	97	581	81	63	63	765	1172	99	820	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1600	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	5	463	0	593	83	62	64	781	779	101	837	4
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	11	555		396	417	312	79	953	629	90	997	5
Arrive On Green	0.01	0.31	0.00	0.13	0.44	0.44	0.05	0.28	0.28	0.06	0.29	0.29
Sat Flow, veh/h	1619	1800	1525	2956	957	715	1619	3420	1525	1619	3490	17
Grp Volume(v), veh/h	5	463	0	593	0	145	64	781	779	101	410	431
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1478	0	1671	1619	1710	1525	1619	1710	1797
Q Serve(g_s), s	0.3	21.5	0.0	12.0	0.0	4.8	3.5	19.1	25.0	5.0	20.2	20.2
Cycle Q Clear(g_c), s	0.3	21.5	0.0	12.0	0.0	4.8	3.5	19.1	25.0	5.0	20.2	20.2
Prop In Lane	1.00		1.00	1.00		0.43	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	11	555		396	0	729	79	953	629	90	488	513
V/C Ratio(X)	0.47	0.83		1.50	0.00	0.20	0.81	0.82	1.24	1.12	0.84	0.84
Avail Cap(c_a), veh/h	90	1164		396	0	1212	90	953	629	90	488	513
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.4	28.9	0.0	38.8	0.0	15.6	42.2	30.2	26.3	42.3	30.1	30.1
Incr Delay (d2), s/veh	11.7	4.7	0.0	237.5	0.0	0.2	32.2	5.4	120.2	130.4	11.7	11.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	9.2	0.0	17.1	0.0	1.7	2.0	7.8	32.6	5.1	9.0	9.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.1	33.6	0.0	276.3	0.0	15.8	74.4	35.6	146.5	172.8	41.8	41.3
LnGrp LOS	E	C		F	A	B	E	D	F	F	D	D
Approach Vol, veh/h		468	A		738			1624			942	
Approach Delay, s/veh		33.8			225.1			90.3			55.6	
Approach LOS		C			F			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	31.0	16.0	33.7	8.4	31.6	4.6	45.1
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	5.0	25.0	12.0	58.0	5.0	25.0	5.0	65.0
Max Q Clear Time (g_c+I1), s	7.0	27.0	14.0	23.5	5.5	22.2	2.3	6.8
Green Ext Time (p_c), s	0.0	0.0	0.0	4.2	0.0	0.9	0.0	1.2

Intersection Summary	
HCM 6th Ctrl Delay	101.0
HCM 6th LOS	F

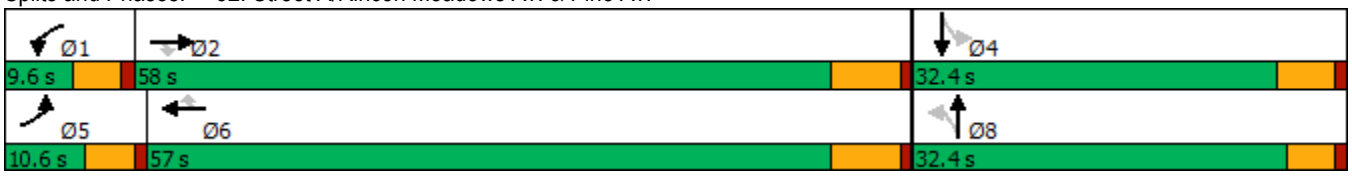
Notes

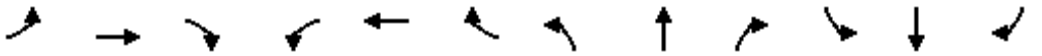
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	20	1652	38	15	693	25	23	3	22	5
Future Volume (vph)	20	1652	38	15	693	25	23	3	22	5
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	NA
Protected Phases	5	2		1	6			8		4
Permitted Phases			2			6	8		4	
Detector Phase	5	2	2	1	6	6	8	8	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.2	28.2	9.6	28.2	28.2	31.6	31.6	32.4	32.4
Total Split (s)	10.6	58.0	58.0	9.6	57.0	57.0	32.4	32.4	32.4	32.4
Total Split (%)	10.6%	58.0%	58.0%	9.6%	57.0%	57.0%	32.4%	32.4%	32.4%	32.4%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	5.2	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	6.2	4.6	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	Max	None	None	None	None	None	None	None

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 79.6
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 32: Street A/Rincon Meadows Av. & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	1652	38	15	693	25	23	3	9	22	5	18
Future Volume (veh/h)	20	1652	38	15	693	25	23	3	9	22	5	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	22	1796	41	16	753	27	25	3	10	24	5	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	39	2273	1014	30	2254	1005	225	40	132	237	34	137
Arrive On Green	0.02	0.66	0.66	0.02	0.66	0.66	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	1619	3420	1525	1619	3420	1525	1408	365	1216	1423	315	1259
Grp Volume(v), veh/h	22	1796	41	16	753	27	25	0	13	24	0	25
Grp Sat Flow(s),veh/h/ln	1619	1710	1525	1619	1710	1525	1408	0	1581	1423	0	1573
Q Serve(g_s), s	1.0	28.9	0.7	0.8	7.5	0.5	1.3	0.0	0.6	1.2	0.0	1.1
Cycle Q Clear(g_c), s	1.0	28.9	0.7	0.8	7.5	0.5	2.4	0.0	0.6	1.8	0.0	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.77	1.00		0.80
Lane Grp Cap(c), veh/h	39	2273	1014	30	2254	1005	225	0	172	237	0	171
V/C Ratio(X)	0.56	0.79	0.04	0.53	0.33	0.03	0.11	0.00	0.08	0.10	0.00	0.15
Avail Cap(c_a), veh/h	125	2273	1014	104	2254	1005	574	0	564	575	0	545
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.6	9.2	4.5	37.9	5.8	4.6	32.5	0.0	31.2	32.0	0.0	31.5
Incr Delay (d2), s/veh	4.5	2.9	0.1	5.1	0.1	0.0	0.2	0.0	0.2	0.2	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	7.5	0.2	0.3	1.8	0.1	0.4	0.0	0.2	0.4	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.2	12.1	4.6	43.0	5.9	4.6	32.8	0.0	31.4	32.2	0.0	31.8
LnGrp LOS	D	B	A	D	A	A	C	A	C	C	A	C
Approach Vol, veh/h		1859			796			38			49	
Approach Delay, s/veh		12.3			6.6			32.3			32.0	
Approach LOS		B			A			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.1	58.0		13.9	6.5	57.6		13.9				
Change Period (Y+Rc), s	4.6	6.2		5.4	4.6	6.2		* 5.4				
Max Green Setting (Gmax), s	5.0	51.8		27.0	6.0	50.8		* 28				
Max Q Clear Time (g_c+I1), s	2.8	30.9		3.8	3.0	9.5		4.4				
Green Ext Time (p_c), s	0.0	13.2		0.1	0.0	5.3		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		11.3
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

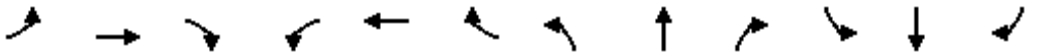
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	41	1603	30	44	633	35	50	29	34	14
Future Volume (vph)	41	1603	30	44	633	35	50	29	34	14
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	NA
Protected Phases	7	4		3	8			2		6
Permitted Phases			4			8	2		6	
Detector Phase	7	4	4	3	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	16.2	9.6	23.2	23.2	15.8	15.8	15.2	15.2
Total Split (s)	14.0	87.0	87.0	12.0	85.0	85.0	21.0	21.0	21.0	21.0
Total Split (%)	11.7%	72.5%	72.5%	10.0%	70.8%	70.8%	17.5%	17.5%	17.5%	17.5%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	5.2	4.8	4.8	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	6.2	5.8	5.8	5.2	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 113.8
Natural Cycle: 75
Control Type: Actuated-Uncoordinated

Splits and Phases: 34: Chino Corona Rd. & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	1603	30	44	633	35	50	29	66	34	14	37
Future Volume (veh/h)	41	1603	30	44	633	35	50	29	66	34	14	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	45	1762	0	48	696	30	55	32	64	37	15	27
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	56	2437		59	1287	1091	169	56	112	123	60	108
Arrive On Green	0.03	0.71	0.00	0.04	0.71	0.71	0.10	0.10	0.10	0.10	0.10	0.10
Sat Flow, veh/h	1619	3420	1525	1619	1800	1525	1309	536	1071	1247	576	1037
Grp Volume(v), veh/h	45	1762	0	48	696	30	55	0	96	37	0	42
Grp Sat Flow(s),veh/h/ln	1619	1710	1525	1619	1800	1525	1309	0	1607	1247	0	1613
Q Serve(g_s), s	3.1	34.6	0.0	3.3	20.4	0.6	4.6	0.0	6.5	3.3	0.0	2.7
Cycle Q Clear(g_c), s	3.1	34.6	0.0	3.3	20.4	0.6	7.3	0.0	6.5	9.8	0.0	2.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.67	1.00		0.64
Lane Grp Cap(c), veh/h	56	2437		59	1287	1091	169	0	168	123	0	168
V/C Ratio(X)	0.81	0.72		0.81	0.54	0.03	0.33	0.00	0.57	0.30	0.00	0.25
Avail Cap(c_a), veh/h	134	2437		106	1287	1091	208	0	215	166	0	225
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	54.4	9.7	0.0	54.2	7.5	4.7	50.1	0.0	48.4	53.0	0.0	46.7
Incr Delay (d2), s/veh	9.9	1.9	0.0	9.2	1.6	0.0	1.1	0.0	3.1	1.4	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	10.2	0.0	1.5	6.5	0.2	1.5	0.0	2.7	1.1	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.3	11.6	0.0	63.4	9.1	4.7	51.2	0.0	51.4	54.4	0.0	47.5
LnGrp LOS	E	B		E	A	A	D	A	D	D	A	D
Approach Vol, veh/h		1807	A		774			151			79	
Approach Delay, s/veh		12.9			12.3			51.3			50.7	
Approach LOS		B			B			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		17.6	8.8	87.0		17.6	8.5	87.3				
Change Period (Y+Rc), s		5.8	4.6	6.2		* 5.8	4.6	6.2				
Max Green Setting (Gmax), s		15.2	7.4	80.8		* 16	9.4	78.8				
Max Q Clear Time (g_c+I1), s		9.3	5.3	36.6		11.8	5.1	22.4				
Green Ext Time (p_c), s		0.3	0.0	19.0		0.1	0.0	4.9				

Intersection Summary												
HCM 6th Ctrl Delay			15.9									
HCM 6th LOS			B									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

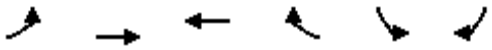
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	27	1676	685	121	27
Future Volume (vph)	27	1676	685	121	27
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	7	4	8	6	
Permitted Phases					6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	14.7	14.7
Total Split (s)	15.0	94.0	79.0	26.0	26.0
Total Split (%)	12.5%	78.3%	65.8%	21.7%	21.7%
Yellow Time (s)	3.6	4.8	4.8	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.7	4.7
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 81
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 36: Pine Av. & West Preserve Loop





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	27	1676	685	52	121	27
Future Volume (veh/h)	27	1676	685	52	121	27
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1700	1800
Adj Flow Rate, veh/h	28	1746	714	49	126	24
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	47	2503	2086	143	212	200
Arrive On Green	0.03	0.73	0.64	0.64	0.13	0.13
Sat Flow, veh/h	1619	3510	3337	223	1619	1525
Grp Volume(v), veh/h	28	1746	376	387	126	24
Grp Sat Flow(s),veh/h/ln	1619	1710	1710	1760	1619	1525
Q Serve(g_s), s	1.3	21.4	7.7	7.7	5.6	1.1
Cycle Q Clear(g_c), s	1.3	21.4	7.7	7.7	5.6	1.1
Prop In Lane	1.00			0.13	1.00	1.00
Lane Grp Cap(c), veh/h	47	2503	1098	1130	212	200
V/C Ratio(X)	0.59	0.70	0.34	0.34	0.59	0.12
Avail Cap(c_a), veh/h	220	3946	1638	1685	451	425
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.6	5.6	6.3	6.3	31.3	29.3
Incr Delay (d2), s/veh	11.1	0.5	0.3	0.3	2.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.6	1.9	2.0	2.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	47.8	6.1	6.5	6.5	34.0	29.6
LnGrp LOS	D	A	A	A	C	C
Approach Vol, veh/h		1774	763		150	
Approach Delay, s/veh		6.8	6.5		33.3	
Approach LOS		A	A		C	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	61.7	14.7	6.8	54.9
Change Period (Y+Rc), s	5.8	4.7	4.6	5.8
Max Green Setting (Gmax), s	88.2	21.3	10.4	73.2
Max Q Clear Time (g_c+I1), s	23.4	7.6	3.3	9.7
Green Ext Time (p_c), s	32.6	0.3	0.0	7.3

Intersection Summary	
HCM 6th Ctrl Delay	8.2
HCM 6th LOS	A

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1745	52	18	717	21	14
Future Volume (vph)	1745	52	18	717	21	14
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	35.8	35.8	9.6	15.8	10.1	10.1
Total Split (s)	94.0	94.0	13.0	107.0	13.0	13.0
Total Split (%)	78.3%	78.3%	10.8%	89.2%	10.8%	10.8%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.1	5.1
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 84.6
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 39: East Preserve Loop & Pine Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1745	52	18	717	21	14
Future Volume (veh/h)	1745	52	18	717	21	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1800	1800	1700	1800	1600	1800
Adj Flow Rate, veh/h	1818	54	19	747	22	6
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	2454	1094	34	2701	261	135
Arrive On Green	0.72	0.72	0.02	0.79	0.09	0.09
Sat Flow, veh/h	3510	1525	1619	3510	2956	1525
Grp Volume(v), veh/h	1818	54	19	747	22	6
Grp Sat Flow(s),veh/h/ln	1710	1525	1619	1710	1478	1525
Q Serve(g_s), s	28.7	0.9	1.0	5.3	0.6	0.3
Cycle Q Clear(g_c), s	28.7	0.9	1.0	5.3	0.6	0.3
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2454	1094	34	2701	261	135
V/C Ratio(X)	0.74	0.05	0.56	0.28	0.08	0.04
Avail Cap(c_a), veh/h	3371	1504	152	3868	261	135
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.6	3.7	43.4	2.5	37.5	37.3
Incr Delay (d2), s/veh	0.8	0.0	5.2	0.1	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	0.2	0.4	0.7	0.2	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.4	3.7	48.6	2.6	38.1	38.0
LnGrp LOS	A	A	D	A	D	D
Approach Vol, veh/h	1872			766	28	
Approach Delay, s/veh	8.2			3.7	38.1	
Approach LOS	A			A	D	

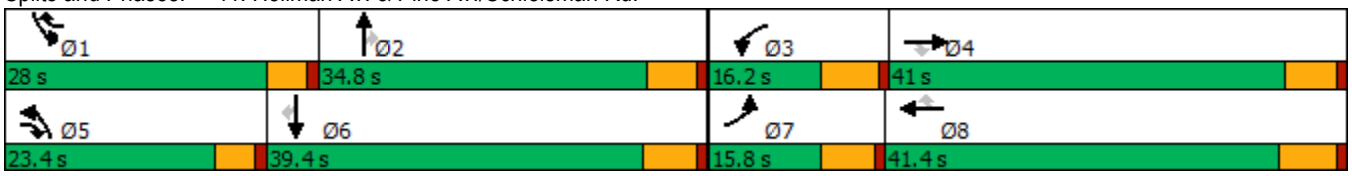
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		13.0	6.5	70.0		76.5
Change Period (Y+Rc), s		5.1	4.6	5.8		5.8
Max Green Setting (Gmax), s		7.9	8.4	88.2		101.2
Max Q Clear Time (g_c+I1), s		2.6	3.0	30.7		7.3
Green Ext Time (p_c), s		0.0	0.0	33.5		8.1

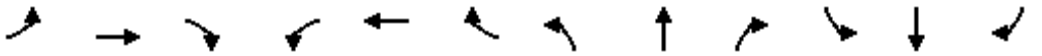
Intersection Summary	
HCM 6th Ctrl Delay	7.3
HCM 6th LOS	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	1243	452	44	571	151	159	138	62	418	327	39
Future Volume (vph)	25	1243	452	44	571	151	159	138	62	418	327	39
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	5	3	8	1	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	34.8	9.6	16.2	35.2	9.6	9.6	32.4	32.4	9.6	32.8	32.8
Total Split (s)	15.8	41.0	23.4	16.2	41.4	28.0	23.4	34.8	34.8	28.0	39.4	39.4
Total Split (%)	13.2%	34.2%	19.5%	13.5%	34.5%	23.3%	19.5%	29.0%	29.0%	23.3%	32.8%	32.8%
Yellow Time (s)	4.8	4.8	3.6	5.2	5.2	3.6	3.6	4.4	4.4	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	6.2	6.2	4.6	4.6	5.4	5.4	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 112.9
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 41: Hellman Av. & Pine Av./Schleisman Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	1243	452	44	571	151	159	138	62	418	327	39
Future Volume (veh/h)	25	1243	452	44	571	151	159	138	62	418	327	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1600	1800	1800	1600	1800	1800	1600	1800	1800	1600	1800	1800
Adj Flow Rate, veh/h	27	1322	292	47	607	100	169	147	39	445	348	22
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	254	1464	568	254	1481	716	220	863	385	496	1183	528
Arrive On Green	0.09	0.30	0.30	0.09	0.30	0.30	0.07	0.25	0.25	0.17	0.35	0.35
Sat Flow, veh/h	2956	4914	1525	2956	4914	1525	2956	3420	1525	2956	3420	1525
Grp Volume(v), veh/h	27	1322	292	47	607	100	169	147	39	445	348	22
Grp Sat Flow(s),veh/h/ln	1478	1638	1525	1478	1638	1525	1478	1710	1525	1478	1710	1525
Q Serve(g_s), s	1.0	30.1	17.3	1.7	11.5	4.3	6.5	3.9	2.3	17.2	8.6	1.1
Cycle Q Clear(g_c), s	1.0	30.1	17.3	1.7	11.5	4.3	6.5	3.9	2.3	17.2	8.6	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	254	1464	568	254	1481	716	220	863	385	496	1183	528
V/C Ratio(X)	0.11	0.90	0.51	0.19	0.41	0.14	0.77	0.17	0.10	0.90	0.29	0.04
Avail Cap(c_a), veh/h	254	1485	575	254	1485	717	477	863	385	594	1183	528
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.1	39.3	28.4	49.4	32.4	17.5	52.9	34.0	33.4	47.5	27.7	25.3
Incr Delay (d2), s/veh	0.3	8.2	1.1	0.5	0.3	0.1	2.1	0.4	0.5	13.2	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	12.5	6.1	0.6	4.4	1.5	2.4	1.6	0.9	7.0	3.5	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.4	47.4	29.4	49.9	32.7	17.7	55.0	34.4	33.9	60.6	28.4	25.4
LnGrp LOS	D	D	C	D	C	B	E	C	C	E	C	C
Approach Vol, veh/h		1641			754			355			815	
Approach Delay, s/veh		44.2			31.8			44.2			45.9	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.2	35.2	16.2	40.9	13.3	46.1	15.8	41.3
Change Period (Y+Rc), s	4.6	* 5.8	6.2	* 6.2	4.6	5.8	5.8	6.2
Max Green Setting (Gmax), s	23.4	* 29	10.0	* 35	18.8	33.6	10.0	35.2
Max Q Clear Time (g_c+I1), s	19.2	5.9	3.7	32.1	8.5	10.6	3.0	13.5
Green Ext Time (p_c), s	0.4	1.2	0.1	2.6	0.2	2.9	0.0	5.6

Intersection Summary	
HCM 6th Ctrl Delay	42.0
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	418	274	568	391	639	934
Future Volume (vph)	418	274	568	391	639	934
Turn Type	Prot	pm+ov	NA	pm+ov	Prot	NA
Protected Phases	8	1	2	8	1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	36.3	11.0	46.3	36.3	11.0	11.0
Total Split (s)	36.3	37.0	46.7	36.3	37.0	83.7
Total Split (%)	30.3%	30.8%	38.9%	30.3%	30.8%	69.8%
Yellow Time (s)	4.3	4.0	4.3	4.3	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.0	5.3	5.3	5.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 115.2
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 42: Archibald Av. & Limonite Av.





Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Traffic Volume (veh/h)	418	274	568	391	639	934		
Future Volume (veh/h)	418	274	568	391	639	934		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No		No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900		
Adj Flow Rate, veh/h	427	230	580	378	652	953		
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98		
Percent Heavy Veh, %	0	0	0	0	0	0		
Cap, veh/h	454	853	635	931	505	1248		
Arrive On Green	0.25	0.25	0.33	0.33	0.28	0.66		
Sat Flow, veh/h	1810	1610	1900	1576	1810	1900		
Grp Volume(v), veh/h	427	230	580	378	652	953		
Grp Sat Flow(s),veh/h/ln	1810	1610	1900	1576	1810	1900		
Q Serve(g_s), s	26.5	9.0	33.6	15.0	32.0	39.6		
Cycle Q Clear(g_c), s	26.5	9.0	33.6	15.0	32.0	39.6		
Prop In Lane	1.00	1.00		1.00	1.00			
Lane Grp Cap(c), veh/h	454	853	635	931	505	1248		
V/C Ratio(X)	0.94	0.27	0.91	0.41	1.29	0.76		
Avail Cap(c_a), veh/h	489	884	686	973	505	1303		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	42.1	14.8	36.6	13.0	41.4	13.6		
Incr Delay (d2), s/veh	24.9	0.1	16.3	0.3	145.6	2.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	14.4	3.0	17.4	8.8	33.7	14.0		
Unsig. Movement Delay, s/veh								
LnGrp Delay(d),s/veh	67.0	14.9	52.9	13.3	187.0	15.9		
LnGrp LOS	E	B	D	B	F	B		
Approach Vol, veh/h	657		958			1605		
Approach Delay, s/veh	48.8		37.3			85.4		
Approach LOS	D		D			F		

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	37.0	43.7				80.7	34.1
Change Period (Y+Rc), s	5.0	5.3				* 5.3	5.3
Max Green Setting (Gmax), s	32.0	41.4				* 79	31.0
Max Q Clear Time (g_c+I1), s	34.0	35.6				41.6	28.5
Green Ext Time (p_c), s	0.0	2.8				4.1	0.2

Intersection Summary								
HCM 6th Ctrl Delay			63.6					
HCM 6th LOS			E					

Notes

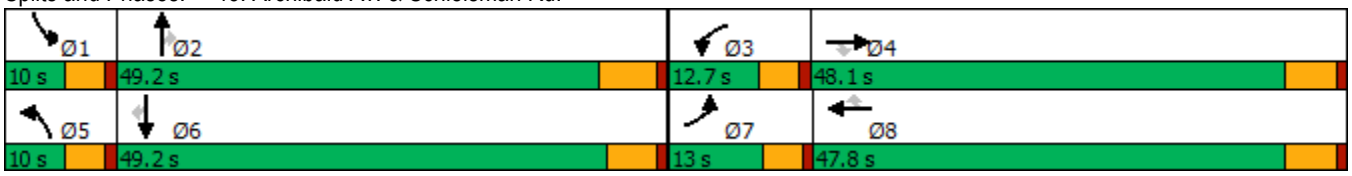
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	434	1065	198	114	342	61	208	637	115	174	700	388
Future Volume (vph)	434	1065	198	114	342	61	208	637	115	174	700	388
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	47.8	47.8	9.6	47.8	47.8	9.6	48.2	48.2	9.6	47.4	47.4
Total Split (s)	13.0	48.1	48.1	12.7	47.8	47.8	10.0	49.2	49.2	10.0	49.2	49.2
Total Split (%)	10.8%	40.1%	40.1%	10.6%	39.8%	39.8%	8.3%	41.0%	41.0%	8.3%	41.0%	41.0%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	5.2	5.2	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	6.2	6.2	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 101.2
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 43: Archibald Av. & Schleisman Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	434	1065	198	114	342	61	208	637	115	174	700	388
Future Volume (veh/h)	434	1065	198	114	342	61	208	637	115	174	700	388
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	443	1087	120	116	349	36	212	650	80	178	714	282
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	290	2306	716	177	2140	663	186	1264	392	186	1264	391
Arrive On Green	0.08	0.44	0.44	0.05	0.41	0.41	0.05	0.24	0.24	0.05	0.24	0.24
Sat Flow, veh/h	3510	5187	1610	3510	5187	1608	3510	5187	1610	3510	5187	1604
Grp Volume(v), veh/h	443	1087	120	116	349	36	212	650	80	178	714	282
Grp Sat Flow(s),veh/h/ln	1755	1729	1610	1755	1729	1608	1755	1729	1610	1755	1729	1604
Q Serve(g_s), s	8.4	15.0	4.6	3.3	4.3	1.4	5.4	11.0	4.0	5.1	12.3	16.4
Cycle Q Clear(g_c), s	8.4	15.0	4.6	3.3	4.3	1.4	5.4	11.0	4.0	5.1	12.3	16.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	290	2306	716	177	2140	663	186	1264	392	186	1264	391
V/C Ratio(X)	1.53	0.47	0.17	0.65	0.16	0.05	1.14	0.51	0.20	0.96	0.56	0.72
Avail Cap(c_a), veh/h	290	2306	716	279	2140	663	186	2191	680	186	2232	690
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.7	19.9	17.0	47.5	18.8	18.0	48.2	33.3	30.6	48.1	33.8	35.3
Incr Delay (d2), s/veh	255.0	0.7	0.5	1.5	0.2	0.2	108.1	0.3	0.3	52.7	0.4	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.8	5.7	1.7	1.4	1.7	0.5	5.1	4.4	1.5	3.5	4.9	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	301.7	20.6	17.5	49.0	19.0	18.1	156.3	33.6	30.9	100.8	34.2	37.9
LnGrp LOS	F	C	B	D	B	B	F	C	C	F	C	D
Approach Vol, veh/h		1650			501			942			1174	
Approach Delay, s/veh		95.8			25.9			61.0			45.2	
Approach LOS		F			C			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	31.0	9.7	51.1	10.0	31.0	13.0	47.8
Change Period (Y+Rc), s	4.6	6.2	4.6	5.8	4.6	* 6.2	4.6	5.8
Max Green Setting (Gmax), s	5.4	43.0	8.1	42.3	5.4	* 44	8.4	42.0
Max Q Clear Time (g_c+I1), s	7.1	13.0	5.3	17.0	7.4	18.4	10.4	6.3
Green Ext Time (p_c), s	0.0	4.5	0.0	8.2	0.0	5.6	0.0	2.3

Intersection Summary	
HCM 6th Ctrl Delay	66.0
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 7.2:

OPENING YEAR CUMULATIVE (2022) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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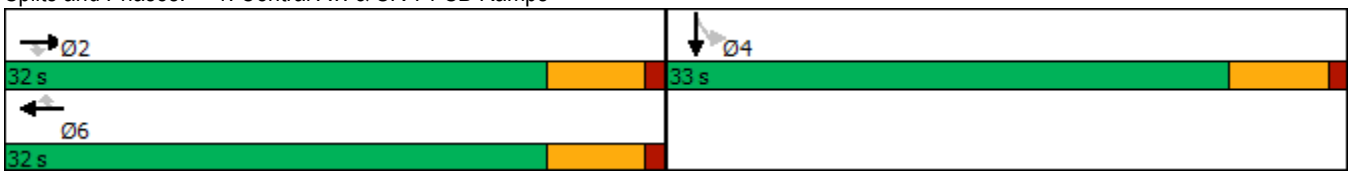
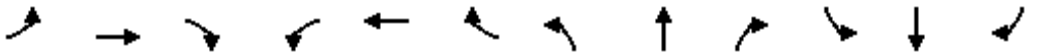
Lane Group	EBT	EBR	WBT	WBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1505	101	738	200	580	0
Future Volume (vph)	1505	101	738	200	580	0
Turn Type	NA	Perm	NA	Perm	Perm	NA
Protected Phases	2		6			4
Permitted Phases		2		6	4	
Detector Phase	2	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	22.8	22.8	15.8	15.8
Total Split (s)	32.0	32.0	32.0	32.0	33.0	33.0
Total Split (%)	49.2%	49.2%	49.2%	49.2%	50.8%	50.8%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max	Max	None	None

Intersection Summary
Cycle Length: 65
Actuated Cycle Length: 61.8
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Central Av. & SR-71 SB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱↱				↰	✣	
Traffic Volume (veh/h)	0	1505	101	0	738	200	0	0	0	580	0	335
Future Volume (veh/h)	0	1505	101	0	738	200	0	0	0	580	0	335
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	0	1710	0	0	839	0				436	312	214
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2304		0	2304					650	377	259
Arrive On Green	0.00	0.44	0.00	0.00	0.44	0.00				0.36	0.36	0.36
Sat Flow, veh/h	0	5358	1610	0	5358	2834				1810	1050	720
Grp Volume(v), veh/h	0	1710	0	0	839	0				436	0	526
Grp Sat Flow(s),veh/h/ln	0	1729	1610	0	1729	1417				1810	0	1770
Q Serve(g_s), s	0.0	16.1	0.0	0.0	6.3	0.0				12.0	0.0	16.0
Cycle Q Clear(g_c), s	0.0	16.1	0.0	0.0	6.3	0.0				12.0	0.0	16.0
Prop In Lane	0.00		1.00	0.00		1.00				1.00		0.41
Lane Grp Cap(c), veh/h	0	2304		0	2304					650	0	636
V/C Ratio(X)	0.00	0.74		0.00	0.36					0.67	0.00	0.83
Avail Cap(c_a), veh/h	0	2304		0	2304					834	0	816
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	13.6	0.0	0.0	10.9	0.0				16.0	0.0	17.2
Incr Delay (d2), s/veh	0.0	2.2	0.0	0.0	0.4	0.0				1.4	0.0	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.2	0.0	0.0	1.9	0.0				4.2	0.0	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	15.8	0.0	0.0	11.3	0.0				17.4	0.0	22.8
LnGrp LOS	A	B		A	B					B	A	C
Approach Vol, veh/h		1710	A		839	A					962	
Approach Delay, s/veh		15.8			11.3						20.3	
Approach LOS		B			B						C	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	32.0	27.0	32.0
Change Period (Y+Rc), s	5.8	5.8	5.8
Max Green Setting (Gmax), s	26.2	27.2	26.2
Max Q Clear Time (g_c+I1), s	18.1	18.0	8.3
Green Ext Time (p_c), s	6.8	3.2	6.8

Intersection Summary	
HCM 6th Ctrl Delay	16.0
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

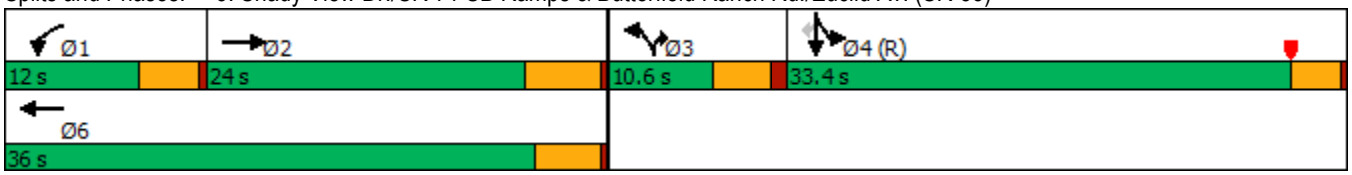
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

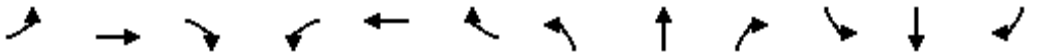
Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	737	206	299	20	305	672	28	42
Future Volume (vph)	737	206	299	20	305	672	28	42
Turn Type	NA	Prot	NA	Prot	Prot	Split	NA	Perm
Protected Phases	2	1	6	3	3	4	4	
Permitted Phases								4
Detector Phase	2	1	6	3	3	4	4	4
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	9.0	26.5	9.5	9.5	32.5	32.5	32.5
Total Split (s)	24.0	12.0	36.0	10.6	10.6	33.4	33.4	33.4
Total Split (%)	30.0%	15.0%	45.0%	13.3%	13.3%	41.8%	41.8%	41.8%
Yellow Time (s)	4.5	3.5	4.0	3.5	3.5	3.0	3.0	3.0
All-Red Time (s)	0.5	0.5	0.5	1.0	1.0	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	4.5	4.5	4.5	3.5	3.5	3.5
Lead/Lag	Lag	Lead		Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	None	None	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 4:SBTL, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 3: Shady View Dr./SR-71 SB Ramps & Butterfield Ranch Rd./Euclid Av. (SR-83)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	737	33	206	299	0	20	0	305	672	28	42
Future Volume (veh/h)	0	737	33	206	299	0	20	0	305	672	28	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	1900	0	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	752	25	210	305	0	20	0	242	707	0	27
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	830	28	181	1382		0	0	0	1849	0	823
Arrive On Green	0.00	0.23	0.23	0.03	0.13	0.00	0.00	0.00	0.00	0.51	0.00	0.51
Sat Flow, veh/h	0	3660	118	1810	3705	0		0		3619	0	1610
Grp Volume(v), veh/h	0	381	396	210	305	0		0.0		707	0	27
Grp Sat Flow(s),veh/h/ln	0	1805	1879	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	16.4	16.4	8.0	6.1	0.0				9.5	0.0	0.7
Cycle Q Clear(g_c), s	0.0	16.4	16.4	8.0	6.1	0.0				9.5	0.0	0.7
Prop In Lane	0.00		0.06	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	420	437	181	1382					1849	0	823
V/C Ratio(X)	0.00	0.91	0.91	1.16	0.22					0.38	0.00	0.03
Avail Cap(c_a), veh/h	0	429	446	181	1421					1849	0	823
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.93	0.93	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	29.8	29.8	38.7	24.2	0.0				11.9	0.0	9.7
Incr Delay (d2), s/veh	0.0	21.6	21.1	114.4	0.1	0.0				0.6	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.0	9.3	9.3	2.5	0.0				3.4	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	51.5	50.9	153.1	24.3	0.0				12.5	0.0	9.8
LnGrp LOS	A	D	D	F	C					B	A	A
Approach Vol, veh/h		777			515	A					734	
Approach Delay, s/veh		51.2			76.8						12.4	
Approach LOS		D			E						B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	12.0	23.6		44.4		35.6
Change Period (Y+Rc), s	4.0	5.0		3.5		* 5
Max Green Setting (Gmax), s	8.0	19.0		29.9		* 32
Max Q Clear Time (g_c+I1), s	10.0	18.4		11.5		8.1
Green Ext Time (p_c), s	0.0	0.2		2.5		1.4

Intersection Summary		
HCM 6th Ctrl Delay		43.6
HCM 6th LOS		D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

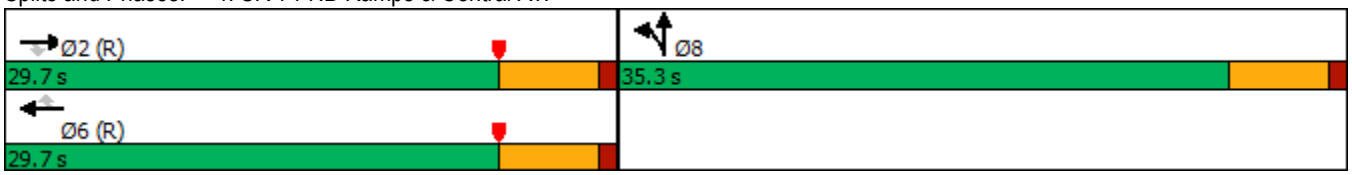
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	1257	828	869	1073	69	0
Future Volume (vph)	1257	828	869	1073	69	0
Turn Type	NA	Perm	NA	Perm	Split	NA
Protected Phases	2		6		8	8
Permitted Phases		2		6		
Detector Phase	2	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	15.8	15.8	22.8	22.8
Total Split (s)	29.7	29.7	29.7	29.7	35.3	35.3
Total Split (%)	45.7%	45.7%	45.7%	45.7%	54.3%	54.3%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 63.9 (98%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 4: SR-71 NB Ramps & Central Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰	↕				
Traffic Volume (veh/h)	0	1257	828	0	869	1073	69	0	416	0	0	0
Future Volume (veh/h)	0	1257	828	0	869	1073	69	0	416	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	0	1428	0	0	988	0	78	0	266			
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	0	3167		0	3167		382	0	340			
Arrive On Green	0.00	0.61	0.00	0.00	0.61	0.00	0.21	0.00	0.21			
Sat Flow, veh/h	0	5358	1610	0	5358	1610	1810	0	1610			
Grp Volume(v), veh/h	0	1428	0	0	988	0	78	0	266			
Grp Sat Flow(s),veh/h/ln	0	1729	1610	0	1729	1610	1810	0	1610			
Q Serve(g_s), s	0.0	9.6	0.0	0.0	6.0	0.0	2.3	0.0	10.1			
Cycle Q Clear(g_c), s	0.0	9.6	0.0	0.0	6.0	0.0	2.3	0.0	10.1			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3167		0	3167		382	0	340			
V/C Ratio(X)	0.00	0.45		0.00	0.31		0.20	0.00	0.78			
Avail Cap(c_a), veh/h	0	3167		0	3167		821	0	731			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.53	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	6.8	0.0	0.0	6.1	0.0	21.1	0.0	24.2			
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.3	0.0	0.3	0.0	4.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	2.4	0.0	0.0	1.5	0.0	0.9	0.0	3.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	7.1	0.0	0.0	6.3	0.0	21.4	0.0	28.2			
LnGrp LOS	A	A		A	A		C	A	C			
Approach Vol, veh/h		1428	A		988	A		344				
Approach Delay, s/veh		7.1			6.3			26.7				
Approach LOS		A			A			C				

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		45.5				45.5		19.5				
Change Period (Y+Rc), s		5.8				5.8		5.8				
Max Green Setting (Gmax), s		23.9				23.9		29.5				
Max Q Clear Time (g_c+I1), s		11.6				8.0		12.1				
Green Ext Time (p_c), s		7.1				5.7		1.6				

Intersection Summary		
HCM 6th Ctrl Delay	9.2	
HCM 6th LOS	A	

Notes

User approved volume balancing among the lanes for turning movement.

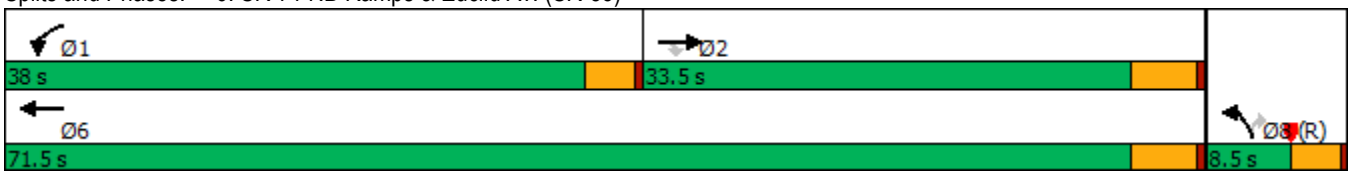
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	715	306	801	1048	45	789
Future Volume (vph)	715	306	801	1048	45	789
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	32.5	32.5	8.5	9.5	8.5	8.5
Total Split (s)	33.5	33.5	38.0	71.5	8.5	8.5
Total Split (%)	41.9%	41.9%	47.5%	89.4%	10.6%	10.6%
Yellow Time (s)	4.0	4.0	3.0	4.0	3.0	3.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	3.5	4.5	3.5	3.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 9.5 (12%), Referenced to phase 4: and 8:NBL, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 6: SR-71 NB Ramps & Euclid Av. (SR-83)





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	715	306	801	1048	45	789
Future Volume (veh/h)	715	306	801	1048	45	789
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	761	0	852	1115	48	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	968		780	2683	551	
Arrive On Green	0.09	0.00	0.43	0.74	0.16	0.00
Sat Flow, veh/h	3705	1610	1810	3705	3510	1610
Grp Volume(v), veh/h	761	0	852	1115	48	0
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805	1755	1610
Q Serve(g_s), s	16.5	0.0	34.5	9.2	0.9	0.0
Cycle Q Clear(g_c), s	16.5	0.0	34.5	9.2	0.9	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	968		780	2683	551	
V/C Ratio(X)	0.79		1.09	0.42	0.09	
Avail Cap(c_a), veh/h	1309		780	3023	551	
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.35	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	34.2	0.0	22.7	3.8	28.8	0.0
Incr Delay (d2), s/veh	0.7	0.0	60.2	0.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	0.0	24.9	1.4	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	34.9	0.0	82.9	3.9	29.1	0.0
LnGrp LOS	C		F	A	C	
Approach Vol, veh/h	761	A		1967	48	A
Approach Delay, s/veh	34.9			38.1	29.1	
Approach LOS	C			D	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	38.0	26.0				64.0	16.0
Change Period (Y+Rc), s	3.5	4.5				4.5	3.5
Max Green Setting (Gmax), s	34.5	29.0				67.0	5.0
Max Q Clear Time (g_c+I1), s	36.5	18.5				11.2	2.9
Green Ext Time (p_c), s	0.0	2.9				8.7	0.0

Intersection Summary		
HCM 6th Ctrl Delay		37.1
HCM 6th LOS		D

Notes

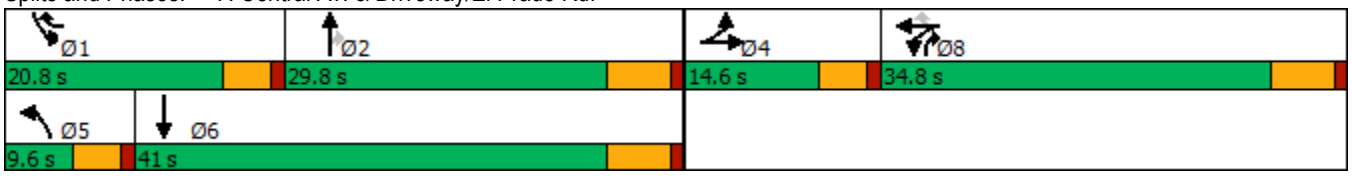
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

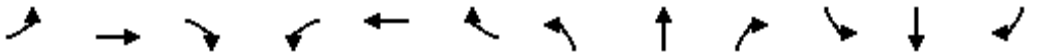
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	2	6	847	4	556	2	865	622	290	739
Future Volume (vph)	2	6	847	4	556	2	865	622	290	739
Turn Type	Split	NA	Split	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	4	4	8	8	1	5	2	8	1	6
Permitted Phases					8			2		
Detector Phase	4	4	8	8	1	5	2	8	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	34.8	34.8	9.6	9.6	27.8	34.8	9.6	24.8
Total Split (s)	14.6	14.6	34.8	34.8	20.8	9.6	29.8	34.8	20.8	41.0
Total Split (%)	14.6%	14.6%	34.8%	34.8%	20.8%	9.6%	29.8%	34.8%	20.8%	41.0%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	5.8	4.6	4.6	5.8	5.8	4.6	5.8
Lead/Lag					Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	None	Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 87.9
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Central Av. & Driveway/El Prado Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	6	1	847	4	556	2	865	622	290	739	11
Future Volume (veh/h)	2	6	1	847	4	556	2	865	622	290	739	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	2	6	0	867	0	350	2	883	461	296	754	8
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	33	36	0	953	0	727	4	922	851	295	2251	24
Arrive On Green	0.02	0.02	0.00	0.29	0.00	0.29	0.00	0.27	0.27	0.18	0.45	0.45
Sat Flow, veh/h	1619	1800	0	3238	0	1525	1619	3420	1490	1619	5012	53
Grp Volume(v), veh/h	2	6	0	867	0	350	2	883	461	296	493	269
Grp Sat Flow(s),veh/h/ln	1619	1800	0	1619	0	1525	1619	1710	1490	1619	1638	1789
Q Serve(g_s), s	0.1	0.3	0.0	23.0	0.0	13.9	0.1	22.6	17.4	16.2	8.7	8.7
Cycle Q Clear(g_c), s	0.1	0.3	0.0	23.0	0.0	13.9	0.1	22.6	17.4	16.2	8.7	8.7
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	33	36	0	953	0	727	4	922	851	295	1471	803
V/C Ratio(X)	0.06	0.17	0.00	0.91	0.00	0.48	0.46	0.96	0.54	1.00	0.33	0.34
Avail Cap(c_a), veh/h	182	202	0	1055	0	775	91	922	851	295	1471	803
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.8	42.9	0.0	30.3	0.0	15.8	44.3	32.0	12.2	36.4	15.9	15.9
Incr Delay (d2), s/veh	0.3	0.8	0.0	10.2	0.0	0.2	25.0	20.9	2.5	53.5	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.0	9.4	0.0	4.2	0.1	11.3	10.2	10.4	3.0	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.1	43.6	0.0	40.5	0.0	16.0	69.3	52.9	14.7	89.9	16.5	17.0
LnGrp LOS	D	D	A	D	A	B	E	D	B	F	B	B
Approach Vol, veh/h		8			1217			1346			1058	
Approach Delay, s/veh		43.5			33.5			39.8			37.2	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.8	29.8		6.4	4.8	45.8		32.0				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		5.8				
Max Green Setting (Gmax), s	16.2	24.0		10.0	5.0	35.2		29.0				
Max Q Clear Time (g_c+I1), s	18.2	24.6		2.3	2.1	10.7		25.0				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	4.6		1.2				

Intersection Summary		
HCM 6th Ctrl Delay		36.9
HCM 6th LOS		D

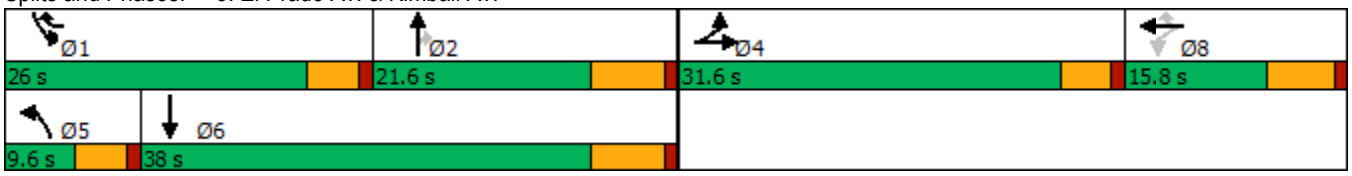
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	23	4	32	16	861	6	294	31	507	261
Future Volume (vph)	23	4	32	16	861	6	294	31	507	261
Turn Type	Split	NA	Perm	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	4	4		8	1	5	2		1	6
Permitted Phases			8		8			2		
Detector Phase	4	4	8	8	1	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	15.8	15.8	9.6	9.6	16.2	16.2	9.6	24.2
Total Split (s)	31.6	31.6	15.8	15.8	26.0	9.6	21.6	21.6	26.0	38.0
Total Split (%)	33.3%	33.3%	16.6%	16.6%	27.4%	10.1%	22.7%	22.7%	27.4%	40.0%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		5.8	4.6	4.6	6.2	6.2	4.6	6.2
Lead/Lag					Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary
Cycle Length: 95
Actuated Cycle Length: 69.2
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: El Prado Av. & Kimball Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	4	3	32	16	861	6	294	31	507	261	40
Future Volume (veh/h)	23	4	3	32	16	861	6	294	31	507	261	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	24	4	2	34	17	509	6	309	33	534	275	39
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	101	71	35	160	80	660	13	382	324	478	1500	210
Arrive On Green	0.06	0.06	0.06	0.14	0.14	0.14	0.01	0.21	0.21	0.30	0.50	0.50
Sat Flow, veh/h	1619	1132	566	1161	581	1525	1619	1800	1525	1619	3003	421
Grp Volume(v), veh/h	24	0	6	51	0	509	6	309	33	534	155	159
Grp Sat Flow(s),veh/h/ln	1619	0	1698	1742	0	1525	1619	1800	1525	1619	1710	1714
Q Serve(g_s), s	1.0	0.0	0.2	1.9	0.0	10.0	0.3	11.8	1.3	21.4	3.6	3.7
Cycle Q Clear(g_c), s	1.0	0.0	0.2	1.9	0.0	10.0	0.3	11.8	1.3	21.4	3.6	3.7
Prop In Lane	1.00		0.33	0.67		1.00	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	101	0	106	240	0	660	13	382	324	478	854	856
V/C Ratio(X)	0.24	0.00	0.06	0.21	0.00	0.77	0.47	0.81	0.10	1.12	0.18	0.19
Avail Cap(c_a), veh/h	603	0	632	240	0	660	112	382	324	478	854	856
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.4	0.0	32.0	27.8	0.0	17.5	35.8	27.2	23.0	25.6	10.0	10.0
Incr Delay (d2), s/veh	1.2	0.0	0.2	0.4	0.0	5.6	9.8	16.7	0.6	77.5	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.1	0.8	0.0	7.0	0.1	6.3	0.5	17.3	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.5	0.0	32.2	28.2	0.0	23.1	45.6	43.8	23.6	103.1	10.5	10.5
LnGrp LOS	C	A	C	C	A	C	D	D	C	F	B	B
Approach Vol, veh/h		30			560			348			848	
Approach Delay, s/veh		33.3			23.5			42.0			68.8	
Approach LOS		C			C			D			E	

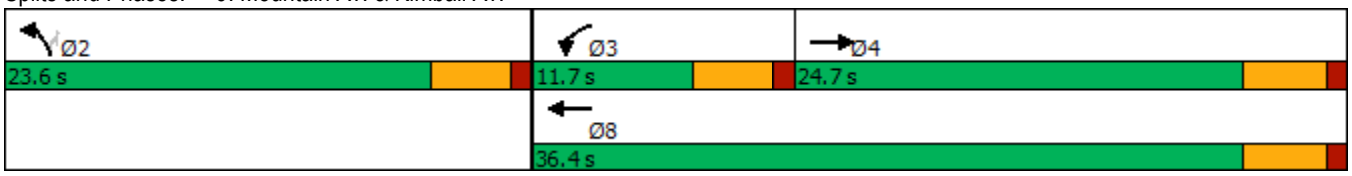
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	26.0	21.6		9.1	5.2	42.4		15.8				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		5.8				
Max Green Setting (Gmax), s	21.4	15.4		27.0	5.0	31.8		10.0				
Max Q Clear Time (g_c+I1), s	23.4	13.8		3.0	2.3	5.7		12.0				
Green Ext Time (p_c), s	0.0	0.3		0.1	0.0	1.6		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			48.8									
HCM 6th LOS			D									

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	374	74	795	101	23
Future Volume (vph)	374	74	795	101	23
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	4	3	8	2	
Permitted Phases					2
Detector Phase	4	3	8	2	2
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	24.7	9.6	14.7	23.6	23.6
Total Split (s)	24.7	11.7	36.4	23.6	23.6
Total Split (%)	41.2%	19.5%	60.7%	39.3%	39.3%
Yellow Time (s)	3.7	3.6	3.7	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.6	4.7	4.6	4.6
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	Max	None	Max	None	None

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 52.9
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 9: Mountain Av. & Kimball Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	374	151	74	795	101	23
Future Volume (veh/h)	374	151	74	795	101	23
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1800	1800	1700	1800	1700	1800
Adj Flow Rate, veh/h	394	148	78	837	106	22
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1173	435	108	2201	272	256
Arrive On Green	0.48	0.48	0.07	0.64	0.17	0.17
Sat Flow, veh/h	2517	899	1619	3510	1619	1525
Grp Volume(v), veh/h	276	266	78	837	106	22
Grp Sat Flow(s),veh/h/ln	1710	1616	1619	1710	1619	1525
Q Serve(g_s), s	4.9	5.0	2.3	5.7	2.9	0.6
Cycle Q Clear(g_c), s	4.9	5.0	2.3	5.7	2.9	0.6
Prop In Lane		0.56	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	827	781	108	2201	272	256
V/C Ratio(X)	0.33	0.34	0.72	0.38	0.39	0.09
Avail Cap(c_a), veh/h	827	781	233	2201	624	588
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.8	7.9	22.5	4.1	18.3	17.3
Incr Delay (d2), s/veh	1.1	1.2	3.4	0.5	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.4	0.9	0.9	1.0	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.9	9.1	26.0	4.6	19.2	17.5
LnGrp LOS	A	A	C	A	B	B
Approach Vol, veh/h	542			915	128	
Approach Delay, s/veh	9.0			6.5	18.9	
Approach LOS	A			A	B	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		12.9	7.9	28.5		36.4
Change Period (Y+Rc), s		4.6	4.6	* 4.7		* 4.7
Max Green Setting (Gmax), s		19.0	7.1	* 20		* 32
Max Q Clear Time (g_c+I1), s		4.9	4.3	7.0		7.7
Green Ext Time (p_c), s		0.2	0.0	2.5		5.6

Intersection Summary	
HCM 6th Ctrl Delay	8.3
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	7.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	129	189	30	26	40	71
Future Vol, veh/h	129	189	30	26	40	71
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	157	230	37	32	49	87

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	238	53	0	0	69	0
Stage 1	53	-	-	-	-	-
Stage 2	185	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	755	1020	-	-	1545	-
Stage 1	975	-	-	-	-	-
Stage 2	852	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	731	1020	-	-	1545	-
Mov Cap-2 Maneuver	729	-	-	-	-	-
Stage 1	975	-	-	-	-	-
Stage 2	825	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	2.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	729	1020	1545	-
HCM Lane V/C Ratio	-	-	0.216	0.226	0.032	-
HCM Control Delay (s)	-	-	11.3	9.6	7.4	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.8	0.9	0.1	-

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	10	47	0	33	167
Future Vol, veh/h	0	10	47	0	33	167
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	11	51	0	36	182

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	305	51	0	0	51	0
Stage 1	51	-	-	-	-	-
Stage 2	254	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	691	1023	-	-	1568	-
Stage 1	977	-	-	-	-	-
Stage 2	793	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	675	1023	-	-	1568	-
Mov Cap-2 Maneuver	685	-	-	-	-	-
Stage 1	977	-	-	-	-	-
Stage 2	775	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.6	0	1.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1023	1568	-
HCM Lane V/C Ratio	-	-	0.011	0.023	-
HCM Control Delay (s)	-	-	8.6	7.3	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0.1	-

Intersection	
Int Delay, s/veh	4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	26	21	24	90	77
Future Vol, veh/h	7	26	21	24	90	77
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	28	23	26	98	84

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	316	36	0	0	49	0
Stage 1	36	-	-	-	-	-
Stage 2	280	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	681	1042	-	-	1571	-
Stage 1	992	-	-	-	-	-
Stage 2	772	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	639	1042	-	-	1571	-
Mov Cap-2 Maneuver	646	-	-	-	-	-
Stage 1	992	-	-	-	-	-
Stage 2	724	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.1	0	4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	922	1571	-
HCM Lane V/C Ratio	-	-	0.039	0.062	-
HCM Control Delay (s)	-	-	9.1	7.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.2	-

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	5	40	25	16	68
Future Vol, veh/h	7	5	40	25	16	68
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	5	43	27	17	74

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	165	57	0	0	70	0
Stage 1	57	-	-	-	-	-
Stage 2	108	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	830	1015	-	-	1544	-
Stage 1	971	-	-	-	-	-
Stage 2	921	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	821	1015	-	-	1544	-
Mov Cap-2 Maneuver	801	-	-	-	-	-
Stage 1	971	-	-	-	-	-
Stage 2	911	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	1.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	878	1544	-
HCM Lane V/C Ratio	-	-	0.015	0.011	-
HCM Control Delay (s)	-	-	9.2	7.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	18	58	275	41	24	118
Future Vol, veh/h	18	58	275	41	24	118
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	20	63	299	45	26	128

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	502	322	0	0	344	0
Stage 1	322	-	-	-	-	-
Stage 2	180	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	533	724	-	-	1226	-
Stage 1	739	-	-	-	-	-
Stage 2	856	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	521	724	-	-	1226	-
Mov Cap-2 Maneuver	521	-	-	-	-	-
Stage 1	739	-	-	-	-	-
Stage 2	836	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.2	0	1.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	663	1226	-
HCM Lane V/C Ratio	-	-	0.125	0.021	-
HCM Control Delay (s)	-	-	11.2	8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1	-

Intersection	
Intersection Delay, s/veh	10.7
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	376	254	0
Future Vol, veh/h	0	0	0	376	254	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	413	279	0
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	0	10.5	11.1
HCM LOS	-	B	B

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	100%
Vol Thru, %	100%	0%	0%
Vol Right, %	0%	100%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	0	376	254
LT Vol	0	0	254
Through Vol	0	0	0
RT Vol	0	376	0
Lane Flow Rate	0	413	279
Geometry Grp	1	1	1
Degree of Util (X)	0	0.463	0.384
Departure Headway (Hd)	5.068	4.031	4.955
Convergence, Y/N	Yes	Yes	Yes
Cap	0	897	723
Service Time	3.119	2.051	3.012
HCM Lane V/C Ratio	0	0.46	0.386
HCM Control Delay	8.1	10.5	11.1
HCM Lane LOS	N	B	B
HCM 95th-tile Q	0	2.5	1.8

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	66	0	41	319	0	12
Future Vol, veh/h	66	0	41	319	0	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	72	0	45	347	0	13

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	72	0	509	72
Stage 1	-	-	-	-	72	-
Stage 2	-	-	-	-	437	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1541	-	528	996
Stage 1	-	-	-	-	956	-
Stage 2	-	-	-	-	655	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1541	-	513	996
Mov Cap-2 Maneuver	-	-	-	-	556	-
Stage 1	-	-	-	-	956	-
Stage 2	-	-	-	-	636	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	996	-	-	1541	-
HCM Lane V/C Ratio	0.013	-	-	0.029	-
HCM Control Delay (s)	8.7	-	-	7.4	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	79	0	8	360	0	2
Future Vol, veh/h	79	0	8	360	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	86	0	9	391	0	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	86	0	495	86
Stage 1	-	-	-	-	86	-
Stage 2	-	-	-	-	409	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1523	-	537	978
Stage 1	-	-	-	-	942	-
Stage 2	-	-	-	-	675	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1523	-	534	978
Mov Cap-2 Maneuver	-	-	-	-	581	-
Stage 1	-	-	-	-	942	-
Stage 2	-	-	-	-	671	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	978	-	-	1523	-
HCM Lane V/C Ratio	0.002	-	-	0.006	-
HCM Control Delay (s)	8.7	-	-	7.4	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	81	0	8	368	0	2
Future Vol, veh/h	81	0	8	368	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	88	0	9	400	0	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	88	0	506	88
Stage 1	-	-	-	-	88	-
Stage 2	-	-	-	-	418	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1520	-	530	976
Stage 1	-	-	-	-	940	-
Stage 2	-	-	-	-	669	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1520	-	527	976
Mov Cap-2 Maneuver	-	-	-	-	575	-
Stage 1	-	-	-	-	940	-
Stage 2	-	-	-	-	665	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	8.7
HCM LOS			A

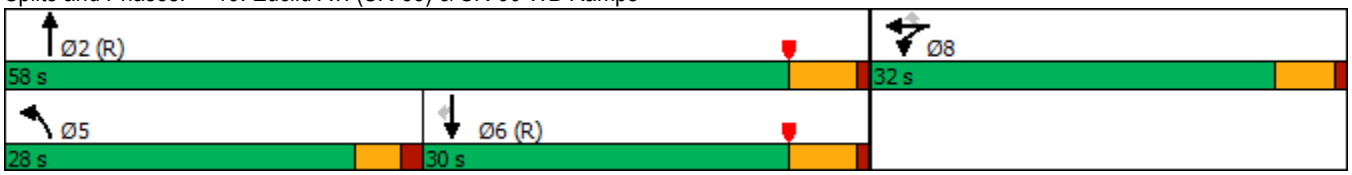
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	976	-	-	1520	-
HCM Lane V/C Ratio	0.002	-	-	0.006	-
HCM Control Delay (s)	8.7	-	-	7.4	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

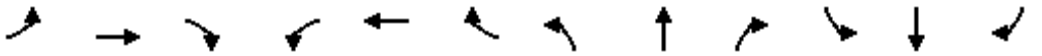
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	688	6	433	405	962	1016	498
Future Volume (vph)	688	6	433	405	962	1016	498
Turn Type	Split	NA	Perm	Prot	NA	NA	Perm
Protected Phases	8	8		5	2	6	
Permitted Phases			8				6
Detector Phase	8	8	8	5	2	6	6
Switch Phase							
Minimum Initial (s)	6.0	6.0	6.0	5.0	10.0	10.0	10.0
Minimum Split (s)	11.0	11.0	11.0	9.5	22.5	22.5	22.5
Total Split (s)	32.0	32.0	32.0	28.0	58.0	30.0	30.0
Total Split (%)	35.6%	35.6%	35.6%	31.1%	64.4%	33.3%	33.3%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.5	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.5	5.5	5.5	5.5
Lead/Lag				Lead		Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 63 (70%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 19: Euclid Av. (SR-83) & SR-60 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	688	6	433	405	962	0	0	1016	498
Future Volume (veh/h)	0	0	0	688	6	433	405	962	0	0	1016	498
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				810	0	163	431	1023	0	0	1081	302
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				910	0	405	453	2281	0	0	1197	534
Arrive On Green				0.25	0.00	0.25	0.50	1.00	0.00	0.00	0.33	0.33
Sat Flow, veh/h				3619	0	1610	1810	3705	0	0	3705	1610
Grp Volume(v), veh/h				810	0	163	431	1023	0	0	1081	302
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1810	1805	0	0	1805	1610
Q Serve(g_s), s				19.4	0.0	7.6	20.4	0.0	0.0	0.0	25.7	13.9
Cycle Q Clear(g_c), s				19.4	0.0	7.6	20.4	0.0	0.0	0.0	25.7	13.9
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				910	0	405	453	2281	0	0	1197	534
V/C Ratio(X)				0.89	0.00	0.40	0.95	0.45	0.00	0.00	0.90	0.57
Avail Cap(c_a), veh/h				1086	0	483	472	2281	0	0	1197	534
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.39	0.39	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				32.5	0.0	28.1	21.9	0.0	0.0	0.0	28.7	24.7
Incr Delay (d2), s/veh				7.4	0.0	0.2	15.0	0.2	0.0	0.0	11.2	4.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.8	0.0	2.8	7.1	0.1	0.0	0.0	12.2	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				39.9	0.0	28.3	37.0	0.2	0.0	0.0	39.9	29.0
LnGrp LOS				D	A	C	D	A	A	A	D	C
Approach Vol, veh/h					973			1454			1383	
Approach Delay, s/veh					38.0			11.1			37.5	
Approach LOS					D			B			D	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	62.4		27.0	35.3		27.6						
Change Period (Y+Rc), s	5.5		4.5	5.5		5.0						
Max Green Setting (Gmax), s	52.5		23.5	24.5		27.0						
Max Q Clear Time (g_c+I1), s	2.0		22.4	27.7		21.4						
Green Ext Time (p_c), s	13.2		0.1	0.0		1.2						

Intersection Summary		
HCM 6th Ctrl Delay	27.6	
HCM 6th LOS	C	

Notes

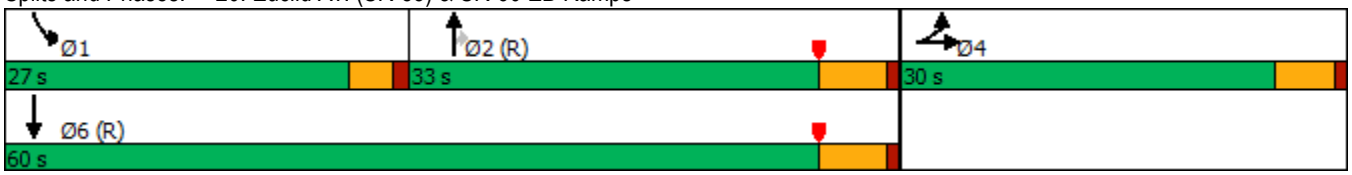
User approved volume balancing among the lanes for turning movement.

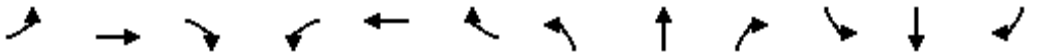
Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	428	2	940	721	385	1319
Future Volume (vph)	428	2	940	721	385	1319
Turn Type	Split	NA	NA	Perm	Prot	NA
Protected Phases	4	4	2		1	6
Permitted Phases				2		
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	6.0	6.0	10.0	10.0	5.0	10.0
Minimum Split (s)	11.0	11.0	22.5	22.5	9.0	22.5
Total Split (s)	30.0	30.0	33.0	33.0	27.0	60.0
Total Split (%)	33.3%	33.3%	36.7%	36.7%	30.0%	66.7%
Yellow Time (s)	4.0	4.0	4.5	4.5	3.0	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.5	5.5	4.0	5.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Min	C-Min	None	C-Min

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 20: Euclid Av. (SR-83) & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	428	2	405	0	0	0	0	940	721	385	1319	0
Future Volume (veh/h)	428	2	405	0	0	0	0	940	721	385	1319	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	412	56	371				0	989	560	405	1388	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	501	60	395				0	1161	504	435	2190	0
Arrive On Green	0.28	0.28	0.28				0.00	0.32	0.32	0.32	0.81	0.00
Sat Flow, veh/h	1810	215	1428				0	3705	1566	1810	3705	0
Grp Volume(v), veh/h	412	0	427				0	989	560	405	1388	0
Grp Sat Flow(s),veh/h/ln	1810	0	1643				0	1805	1566	1810	1805	0
Q Serve(g_s), s	19.2	0.0	22.9				0.0	23.0	29.0	19.5	13.7	0.0
Cycle Q Clear(g_c), s	19.2	0.0	22.9				0.0	23.0	29.0	19.5	13.7	0.0
Prop In Lane	1.00		0.87				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	501	0	455				0	1161	504	435	2190	0
V/C Ratio(X)	0.82	0.00	0.94				0.00	0.85	1.11	0.93	0.63	0.00
Avail Cap(c_a), veh/h	503	0	456				0	1161	504	462	2190	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.70	0.70	0.16	0.16	0.00
Uniform Delay (d), s/veh	30.5	0.0	31.8				0.0	28.5	30.5	29.9	4.7	0.0
Incr Delay (d2), s/veh	9.9	0.0	27.1				0.0	5.7	68.3	5.8	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	0.0	11.8				0.0	10.2	19.7	7.9	2.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.4	0.0	58.9				0.0	34.2	98.9	35.7	5.0	0.0
LnGrp LOS	D	A	E				A	C	F	D	A	A
Approach Vol, veh/h		839						1549			1793	
Approach Delay, s/veh		49.8						57.6			11.9	
Approach LOS		D						E			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	25.6	34.5		29.9		60.1
Change Period (Y+Rc), s	4.0	5.5		5.0		5.5
Max Green Setting (Gmax), s	23.0	27.5		25.0		54.5
Max Q Clear Time (g_c+I1), s	21.5	31.0		24.9		15.7
Green Ext Time (p_c), s	0.1	0.0		0.1		19.0

Intersection Summary	
HCM 6th Ctrl Delay	36.4
HCM 6th LOS	D

Notes

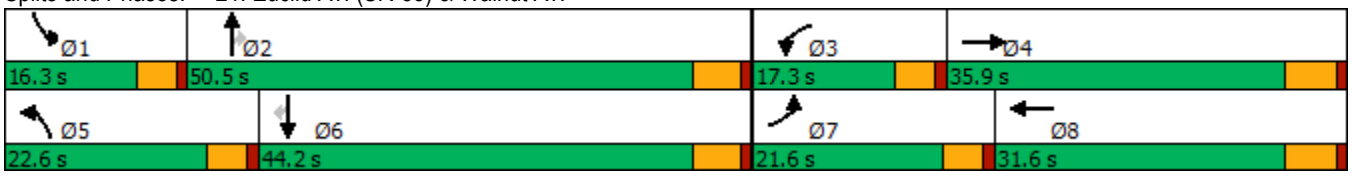
User approved volume balancing among the lanes for turning movement.

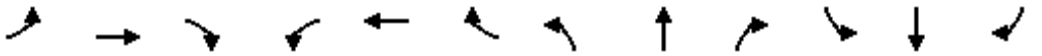
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	120	306	76	326	133	1274	48	159	1369	63
Future Volume (vph)	120	306	76	326	133	1274	48	159	1369	63
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.8	9.6	29.8	9.6	27.4	27.4	9.6	29.4	29.4
Total Split (s)	21.6	35.9	17.3	31.6	22.6	50.5	50.5	16.3	44.2	44.2
Total Split (%)	18.0%	29.9%	14.4%	26.3%	18.8%	42.1%	42.1%	13.6%	36.8%	36.8%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 109.4
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 21: Euclid Av. (SR-83) & Walnut Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	306	119	76	326	216	133	1274	48	159	1369	63
Future Volume (veh/h)	120	306	119	76	326	216	133	1274	48	159	1369	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1600	1800	1800
Adj Flow Rate, veh/h	126	322	89	80	343	187	140	1341	33	167	1441	45
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	152	603	164	100	418	224	167	2153	668	222	2015	625
Arrive On Green	0.09	0.23	0.23	0.06	0.19	0.19	0.10	0.44	0.44	0.08	0.41	0.41
Sat Flow, veh/h	1619	2657	723	1619	2150	1149	1619	4914	1524	2956	4914	1524
Grp Volume(v), veh/h	126	205	206	80	271	259	140	1341	33	167	1441	45
Grp Sat Flow(s),veh/h/ln	1619	1710	1670	1619	1710	1589	1619	1638	1524	1478	1638	1524
Q Serve(g_s), s	7.9	10.9	11.2	5.0	15.6	16.1	8.7	21.7	1.3	5.7	25.2	1.8
Cycle Q Clear(g_c), s	7.9	10.9	11.2	5.0	15.6	16.1	8.7	21.7	1.3	5.7	25.2	1.8
Prop In Lane	1.00		0.43	1.00		0.72	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	152	388	379	100	333	309	167	2153	668	222	2015	625
V/C Ratio(X)	0.83	0.53	0.54	0.80	0.82	0.84	0.84	0.62	0.05	0.75	0.72	0.07
Avail Cap(c_a), veh/h	267	500	488	200	429	398	283	2153	668	336	2015	625
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.8	35.0	35.1	47.7	39.7	39.9	45.3	22.3	16.6	46.7	25.3	18.5
Incr Delay (d2), s/veh	4.3	1.1	1.2	5.5	9.2	11.6	4.2	1.4	0.1	1.9	2.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	4.4	4.5	2.1	7.1	7.0	3.6	8.1	0.4	2.1	9.6	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.1	36.1	36.3	53.2	48.9	51.5	49.5	23.7	16.7	48.6	27.6	18.7
LnGrp LOS	D	D	D	D	D	D	D	C	B	D	C	B
Approach Vol, veh/h		537			610			1514			1653	
Approach Delay, s/veh		39.5			50.5			25.9			29.4	
Approach LOS		D			D			C			C	

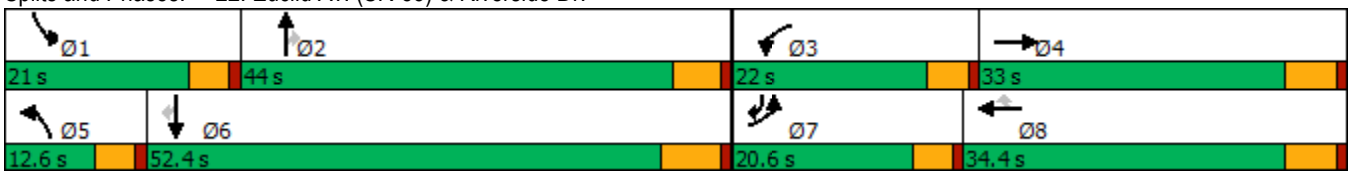
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.3	50.5	10.9	29.2	15.2	47.6	14.3	25.8
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	11.7	45.1	12.7	30.1	18.0	38.8	17.0	25.8
Max Q Clear Time (g_c+I1), s	7.7	23.7	7.0	13.2	10.7	27.2	9.9	18.1
Green Ext Time (p_c), s	0.1	9.7	0.0	2.0	0.1	7.2	0.1	1.8

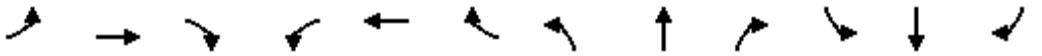
Intersection Summary	
HCM 6th Ctrl Delay	32.4
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	162	330	202	517	122	76	1048	166	184	1174	161
Future Volume (vph)	162	330	202	517	122	76	1048	166	184	1174	161
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4	3	8		5	2		1	6	7
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	25.8	9.6	31.8	31.8	9.6	30.4	30.4	9.6	34.5	9.6
Total Split (s)	20.6	33.0	22.0	34.4	34.4	12.6	44.0	44.0	21.0	52.4	20.6
Total Split (%)	17.2%	27.5%	18.3%	28.7%	28.7%	10.5%	36.7%	36.7%	17.5%	43.7%	17.2%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 119.3
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Euclid Av. (SR-83) & Riverside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	162	330	66	202	517	122	76	1048	166	184	1174	161
Future Volume (veh/h)	162	330	66	202	517	122	76	1048	166	184	1174	161
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	171	347	53	213	544	99	80	1103	135	194	1236	110
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	195	343	52	233	850	379	99	1092	487	217	1342	782
Arrive On Green	0.12	0.22	0.22	0.14	0.25	0.25	0.06	0.32	0.32	0.13	0.39	0.39
Sat Flow, veh/h	1619	1525	233	1619	3420	1525	1619	3420	1525	1619	3420	1524
Grp Volume(v), veh/h	171	0	400	213	544	99	80	1103	135	194	1236	110
Grp Sat Flow(s),veh/h/ln	1619	0	1758	1619	1710	1525	1619	1710	1525	1619	1710	1524
Q Serve(g_s), s	12.6	0.0	27.2	15.7	17.2	6.3	5.9	38.6	8.0	14.3	41.6	4.6
Cycle Q Clear(g_c), s	12.6	0.0	27.2	15.7	17.2	6.3	5.9	38.6	8.0	14.3	41.6	4.6
Prop In Lane	1.00		0.13	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	195	0	395	233	850	379	99	1092	487	217	1342	782
V/C Ratio(X)	0.88	0.00	1.01	0.91	0.64	0.26	0.81	1.01	0.28	0.89	0.92	0.14
Avail Cap(c_a), veh/h	214	0	395	233	850	379	107	1092	487	220	1342	782
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.3	0.0	46.9	51.0	40.6	36.5	56.1	41.2	30.7	51.5	34.9	15.5
Incr Delay (d2), s/veh	27.8	0.0	48.2	36.0	1.6	0.4	30.8	29.8	1.4	32.4	11.7	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	0.0	16.8	8.5	7.2	2.3	3.2	19.6	3.0	7.6	18.7	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.1	0.0	95.1	87.0	42.2	36.9	86.9	71.0	32.2	83.9	46.7	15.8
LnGrp LOS	F	A	F	F	D	D	F	F	C	F	D	B
Approach Vol, veh/h		571			856			1318			1540	
Approach Delay, s/veh		90.6			52.8			68.0			49.2	
Approach LOS		F			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.8	45.1	22.0	33.0	12.0	54.0	19.1	35.9
Change Period (Y+Rc), s	4.6	* 6.5	4.6	5.8	4.6	6.5	4.6	5.8
Max Green Setting (Gmax), s	16.4	* 39	17.4	27.2	8.0	45.9	16.0	28.6
Max Q Clear Time (g_c+I1), s	16.3	40.6	17.7	29.2	7.9	43.6	14.6	19.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	1.7	0.0	2.5

Intersection Summary	
HCM 6th Ctrl Delay	61.2
HCM 6th LOS	E

Notes

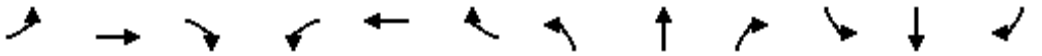
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	110	175	44	77	160	52	1122	136	59	1261	98
Future Volume (vph)	110	175	44	77	160	52	1122	136	59	1261	98
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	28.8	28.8	28.8	33.8	33.8	9.6	24.2	24.2	9.6	31.5	31.5
Total Split (s)	44.0	44.0	44.0	44.0	44.0	15.0	60.0	60.0	16.0	61.0	61.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	12.5%	50.0%	50.0%	13.3%	50.8%	50.8%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	3.6	4.2	4.2	3.6	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8		5.8	4.6	5.2	5.2	4.6	6.5	6.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 104.7
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: Euclid Av. (SR-83) & Chino Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	175	44	77	160	54	52	1122	136	59	1261	98
Future Volume (veh/h)	110	175	44	77	160	54	52	1122	136	59	1261	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	117	186	31	82	170	45	55	1194	121	63	1341	73
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	227	467	395	118	212	51	68	1809	807	79	1831	800
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.04	0.53	0.53	0.05	0.54	0.54
Sat Flow, veh/h	1119	1800	1524	284	817	197	1619	3420	1525	1619	3420	1494
Grp Volume(v), veh/h	117	186	31	297	0	0	55	1194	121	63	1341	73
Grp Sat Flow(s),veh/h/ln	1119	1800	1524	1298	0	0	1619	1710	1525	1619	1710	1494
Q Serve(g_s), s	0.0	8.8	1.6	14.7	0.0	0.0	3.5	26.2	4.2	4.0	31.0	2.5
Cycle Q Clear(g_c), s	21.5	8.8	1.6	23.5	0.0	0.0	3.5	26.2	4.2	4.0	31.0	2.5
Prop In Lane	1.00		1.00	0.28		0.15	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	227	467	395	381	0	0	68	1809	807	79	1831	800
V/C Ratio(X)	0.52	0.40	0.08	0.78	0.00	0.00	0.80	0.66	0.15	0.80	0.73	0.09
Avail Cap(c_a), veh/h	349	664	562	549	0	0	163	1809	807	178	1831	800
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.4	31.7	29.0	38.1	0.0	0.0	49.2	17.6	12.5	48.8	18.4	11.8
Incr Delay (d2), s/veh	1.8	0.6	0.1	4.5	0.0	0.0	8.0	1.9	0.4	6.9	2.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	3.8	0.6	7.4	0.0	0.0	1.5	9.2	1.3	1.7	11.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.2	32.2	29.1	42.6	0.0	0.0	57.2	19.6	12.9	55.7	21.0	12.0
LnGrp LOS	D	C	C	D	A	A	E	B	B	E	C	B
Approach Vol, veh/h		334			297			1370			1477	
Approach Delay, s/veh		34.0			42.6			20.5			22.1	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.6	61.3		32.7	9.0	62.0		32.7				
Change Period (Y+Rc), s	4.6	* 6.5		5.8	4.6	6.5		5.8				
Max Green Setting (Gmax), s	11.4	* 55		38.2	10.4	54.5		38.2				
Max Q Clear Time (g_c+I1), s	6.0	28.2		23.5	5.5	33.0		25.5				
Green Ext Time (p_c), s	0.0	9.0		1.2	0.0	9.3		1.3				

Intersection Summary		
HCM 6th Ctrl Delay		24.3
HCM 6th LOS		C

Notes

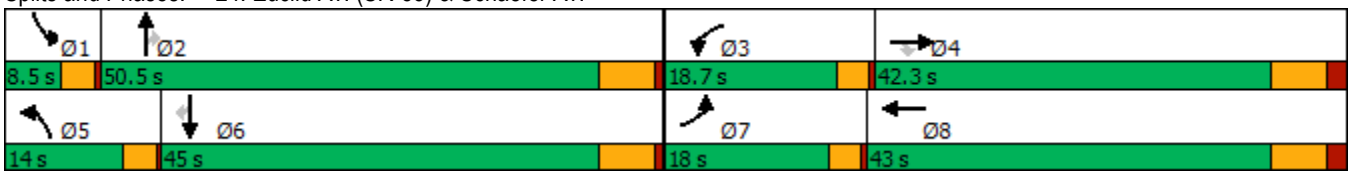
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

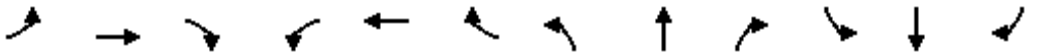
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	162	78	67	149	188	111	1087	37	31	1170	129
Future Volume (vph)	162	78	67	149	188	111	1087	37	31	1170	129
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.5	42.0	42.0	13.5	43.0	8.5	33.0	33.0	8.5	28.0	28.0
Total Split (s)	18.0	42.3	42.3	18.7	43.0	14.0	50.5	50.5	8.5	45.0	45.0
Total Split (%)	15.0%	35.3%	35.3%	15.6%	35.8%	11.7%	42.1%	42.1%	7.1%	37.5%	37.5%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	7.0	7.0	3.5	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 102.3
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Euclid Av. (SR-83) & Schaefer Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	162	78	67	149	188	12	111	1087	37	31	1170	129
Future Volume (veh/h)	162	78	67	149	188	12	111	1087	37	31	1170	129
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	174	84	53	160	202	11	119	1169	30	33	1258	105
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	205	295	250	190	262	14	145	1595	711	50	1394	620
Arrive On Green	0.13	0.16	0.16	0.12	0.16	0.16	0.09	0.47	0.47	0.03	0.41	0.41
Sat Flow, veh/h	1619	1800	1525	1619	1691	92	1619	3420	1525	1619	3420	1522
Grp Volume(v), veh/h	174	84	53	160	0	213	119	1169	30	33	1258	105
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1619	0	1783	1619	1710	1525	1619	1710	1522
Q Serve(g_s), s	9.5	3.7	2.7	8.8	0.0	10.4	6.5	25.1	1.0	1.8	31.2	4.0
Cycle Q Clear(g_c), s	9.5	3.7	2.7	8.8	0.0	10.4	6.5	25.1	1.0	1.8	31.2	4.0
Prop In Lane	1.00		1.00	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	205	295	250	190	0	277	145	1595	711	50	1394	620
V/C Ratio(X)	0.85	0.28	0.21	0.84	0.00	0.77	0.82	0.73	0.04	0.65	0.90	0.17
Avail Cap(c_a), veh/h	259	702	595	272	0	709	188	1682	750	89	1474	656
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.7	33.2	32.8	39.1	0.0	36.7	40.5	19.6	13.2	43.4	25.1	17.1
Incr Delay (d2), s/veh	15.9	0.4	0.3	10.6	0.0	3.4	15.3	1.6	0.0	5.2	7.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	1.6	1.0	3.9	0.0	4.5	3.0	8.7	0.3	0.8	12.3	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.6	33.6	33.1	49.7	0.0	40.0	55.8	21.2	13.2	48.6	32.9	17.2
LnGrp LOS	D	C	C	D	A	D	E	C	B	D	C	B
Approach Vol, veh/h		311			373			1318			1396	
Approach Delay, s/veh		45.3			44.2			24.1			32.1	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	48.2	14.1	21.8	11.6	42.9	14.9	21.1
Change Period (Y+Rc), s	3.5	6.0	3.5	7.0	3.5	6.0	3.5	7.0
Max Green Setting (Gmax), s	5.0	44.5	15.2	35.3	10.5	39.0	14.5	36.0
Max Q Clear Time (g_c+I1), s	3.8	27.1	10.8	5.7	8.5	33.2	11.5	12.4
Green Ext Time (p_c), s	0.0	7.0	0.1	0.4	0.0	3.7	0.1	0.8

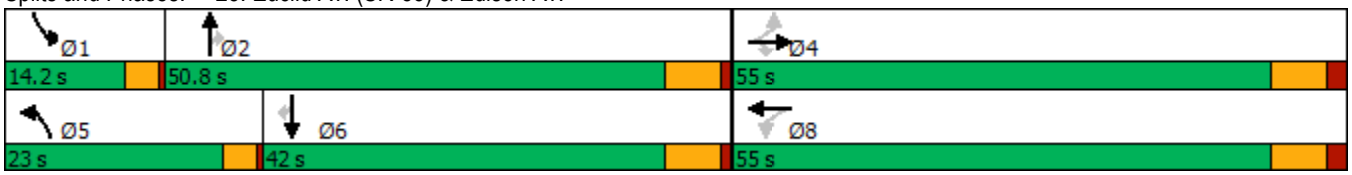
Intersection Summary	
HCM 6th Ctrl Delay	31.5
HCM 6th LOS	C

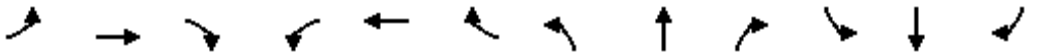
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	165	284	127	38	451	231	1017	41	79	1041	177
Future Volume (vph)	165	284	127	38	451	231	1017	41	79	1041	177
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	46.0	46.0	46.0	49.0	49.0	8.5	29.0	29.0	8.5	40.0	40.0
Total Split (s)	55.0	55.0	55.0	55.0	55.0	23.0	50.8	50.8	14.2	42.0	42.0
Total Split (%)	45.8%	45.8%	45.8%	45.8%	45.8%	19.2%	42.3%	42.3%	11.8%	35.0%	35.0%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 119.6
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 25: Euclid Av. (SR-83) & Edison Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	284	127	38	451	70	231	1017	41	79	1041	177
Future Volume (veh/h)	165	284	127	38	451	70	231	1017	41	79	1041	177
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	172	296	77	40	470	68	241	1059	35	82	1084	133
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	173	720	610	333	615	89	263	1368	610	101	1026	447
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.16	0.40	0.40	0.06	0.30	0.30
Sat Flow, veh/h	832	1800	1524	968	1537	222	1619	3420	1525	1619	3420	1489
Grp Volume(v), veh/h	172	296	77	40	0	538	241	1059	35	82	1084	133
Grp Sat Flow(s),veh/h/ln	832	1800	1524	968	0	1760	1619	1710	1525	1619	1710	1489
Q Serve(g_s), s	16.3	14.2	3.8	3.7	0.0	31.7	17.6	32.3	1.7	6.0	36.0	8.2
Cycle Q Clear(g_c), s	48.0	14.2	3.8	17.9	0.0	31.7	17.6	32.3	1.7	6.0	36.0	8.2
Prop In Lane	1.00		1.00	1.00		0.13	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	173	720	610	333	0	704	263	1368	610	101	1026	447
V/C Ratio(X)	0.99	0.41	0.13	0.12	0.00	0.76	0.92	0.77	0.06	0.81	1.06	0.30
Avail Cap(c_a), veh/h	173	720	610	333	0	704	263	1368	610	144	1026	447
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.6	25.9	22.7	32.3	0.0	31.1	49.4	31.3	22.1	55.6	42.0	32.3
Incr Delay (d2), s/veh	66.7	0.4	0.1	0.2	0.0	5.0	33.5	2.8	0.0	13.5	44.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	5.9	1.3	0.9	0.0	13.7	9.2	12.8	0.6	2.7	20.5	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	121.4	26.2	22.8	32.4	0.0	36.1	82.9	34.1	22.1	69.1	86.3	32.7
LnGrp LOS	F	C	C	C	A	D	F	C	C	E	F	C
Approach Vol, veh/h		545			578			1335			1299	
Approach Delay, s/veh		55.8			35.9			42.6			79.7	
Approach LOS		E			D			D			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.0	54.0		55.0	23.0	42.0		55.0
Change Period (Y+Rc), s	3.5	6.0		7.0	3.5	6.0		7.0
Max Green Setting (Gmax), s	10.7	44.8		48.0	19.5	36.0		48.0
Max Q Clear Time (g_c+I1), s	8.0	34.3		50.0	19.6	38.0		33.7
Green Ext Time (p_c), s	0.0	4.8		0.0	0.0	0.0		2.9

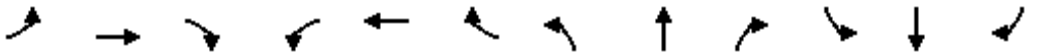
Intersection Summary		
HCM 6th Ctrl Delay		56.3
HCM 6th LOS		E

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	71	28	169	34	161	184	1222	13	63	1192	42
Future Volume (vph)	71	28	169	34	161	184	1222	13	63	1192	42
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	46.8	46.8	46.8	46.8	46.8	8.5	30.7	30.7	8.5	37.7	37.7
Total Split (s)	46.8	46.8	46.8	46.8	46.8	24.0	63.5	63.5	9.7	49.2	49.2
Total Split (%)	39.0%	39.0%	39.0%	39.0%	39.0%	20.0%	52.9%	52.9%	8.1%	41.0%	41.0%
Yellow Time (s)	4.3	4.3	4.3	4.3	4.3	3.0	4.7	4.7	3.0	4.7	4.7
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.8	4.8	3.5	5.7	5.7	3.5	5.7	5.7
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 88
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 26: Euclid Av. (SR-83) & Eucalyptus Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	28	169	34	161	50	184	1222	13	63	1192	42
Future Volume (veh/h)	71	28	169	34	161	50	184	1222	13	63	1192	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	72	29	86	35	164	43	188	1247	12	64	1216	32
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	215	370	313	341	283	74	229	1845	823	83	1537	685
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.14	0.54	0.54	0.05	0.45	0.45
Sat Flow, veh/h	1127	1800	1525	1226	1375	360	1619	3420	1525	1619	3420	1524
Grp Volume(v), veh/h	72	29	86	35	0	207	188	1247	12	64	1216	32
Grp Sat Flow(s),veh/h/ln	1127	1800	1525	1226	0	1735	1619	1710	1525	1619	1710	1524
Q Serve(g_s), s	4.2	0.9	3.3	1.6	0.0	7.4	7.8	18.2	0.3	2.7	20.9	0.8
Cycle Q Clear(g_c), s	11.6	0.9	3.3	2.5	0.0	7.4	7.8	18.2	0.3	2.7	20.9	0.8
Prop In Lane	1.00		1.00	1.00		0.21	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	215	370	313	341	0	357	229	1845	823	83	1537	685
V/C Ratio(X)	0.33	0.08	0.27	0.10	0.00	0.58	0.82	0.68	0.01	0.77	0.79	0.05
Avail Cap(c_a), veh/h	672	1100	932	838	0	1061	483	2877	1283	146	2165	965
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.9	22.0	23.0	23.1	0.0	24.6	28.7	11.5	7.3	32.2	16.2	10.6
Incr Delay (d2), s/veh	0.7	0.1	0.3	0.1	0.0	1.1	5.4	0.4	0.0	10.6	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.4	1.1	0.4	0.0	2.8	3.0	4.8	0.1	1.2	6.4	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.5	22.1	23.3	23.2	0.0	25.7	34.1	11.9	7.4	42.8	17.5	10.7
LnGrp LOS	C	C	C	C	A	C	C	B	A	D	B	B
Approach Vol, veh/h		187			242			1447			1312	
Approach Delay, s/veh		25.9			25.4			14.8			18.6	
Approach LOS		C			C			B			B	

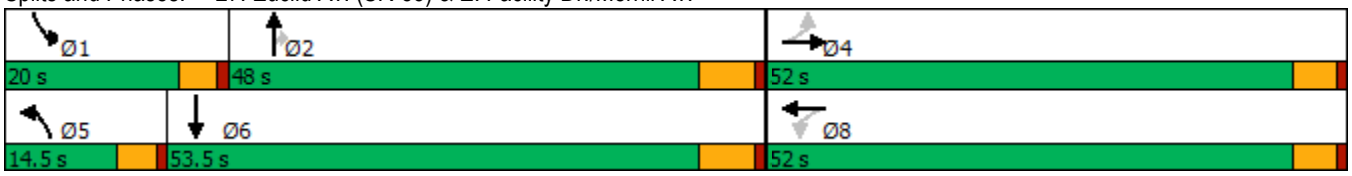
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	42.8		18.9	13.2	36.6		18.9				
Change Period (Y+Rc), s	3.5	5.7		4.8	3.5	5.7		4.8				
Max Green Setting (Gmax), s	6.2	57.8		42.0	20.5	43.5		42.0				
Max Q Clear Time (g_c+I1), s	4.7	20.2		13.6	9.8	22.9		9.4				
Green Ext Time (p_c), s	0.0	10.0		0.5	0.2	8.0		1.0				

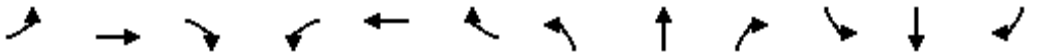
Intersection Summary			
HCM 6th Ctrl Delay		17.8	
HCM 6th LOS		B	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	4	8	257	50	11	1153	204	187	1150
Future Volume (vph)	4	8	257	50	11	1153	204	187	1150
Turn Type	Perm	NA	Perm	NA	Prot	NA	Perm	Prot	NA
Protected Phases		4		8	5	2		1	6
Permitted Phases	4		8				2		
Detector Phase	4	4	8	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	15.0	15.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	10.0	10.0	46.0	46.0	14.5	28.0	28.0	14.5	28.0
Total Split (s)	52.0	52.0	52.0	52.0	14.5	48.0	48.0	20.0	53.5
Total Split (%)	43.3%	43.3%	43.3%	43.3%	12.1%	40.0%	40.0%	16.7%	44.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.5	5.0	5.0	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	4.5	6.0	6.0	4.5	6.0
Lead/Lag					Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 119.9
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 27: Euclid Av. (SR-83) & E. Facility Dr./Merrill Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	8	18	257	50	259	11	1153	204	187	1150	41
Future Volume (veh/h)	4	8	18	257	50	259	11	1153	204	187	1150	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	4	8	18	265	52	240	11	1189	167	193	1186	28
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	93	185	366	319	54	248	41	1210	540	211	1565	37
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.03	0.35	0.35	0.13	0.46	0.46
Sat Flow, veh/h	152	481	949	711	140	644	1619	3420	1525	1619	3413	81
Grp Volume(v), veh/h	30	0	0	557	0	0	11	1189	167	193	594	620
Grp Sat Flow(s),veh/h/ln	1582	0	0	1495	0	0	1619	1710	1525	1619	1710	1783
Q Serve(g_s), s	0.0	0.0	0.0	42.0	0.0	0.0	0.8	40.9	9.4	14.0	34.2	34.3
Cycle Q Clear(g_c), s	1.4	0.0	0.0	43.3	0.0	0.0	0.8	40.9	9.4	14.0	34.2	34.3
Prop In Lane	0.13		0.60	0.48		0.43	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	644	0	0	621	0	0	41	1210	540	211	784	818
V/C Ratio(X)	0.05	0.00	0.00	0.90	0.00	0.00	0.27	0.98	0.31	0.91	0.76	0.76
Avail Cap(c_a), veh/h	660	0	0	636	0	0	136	1210	540	211	784	818
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.9	0.0	0.0	35.6	0.0	0.0	56.8	38.0	27.9	51.0	26.7	26.7
Incr Delay (d2), s/veh	0.0	0.0	0.0	14.8	0.0	0.0	1.3	21.8	0.3	38.1	4.3	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	17.2	0.0	0.0	0.3	19.4	3.3	7.6	13.5	14.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.9	0.0	0.0	50.4	0.0	0.0	58.0	59.8	28.2	89.1	31.0	30.8
LnGrp LOS	C	A	A	D	A	A	E	E	C	F	C	C
Approach Vol, veh/h		30			557			1367			1407	
Approach Delay, s/veh		22.9			50.4			55.9			38.9	
Approach LOS		C			D			E			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.0	48.0		50.8	7.5	60.5		50.8				
Change Period (Y+Rc), s	4.5	6.0		5.0	4.5	6.0		5.0				
Max Green Setting (Gmax), s	15.5	42.0		47.0	10.0	47.5		47.0				
Max Q Clear Time (g_c+I1), s	16.0	42.9		3.4	2.8	36.3		45.3				
Green Ext Time (p_c), s	0.0	0.0		0.1	0.0	5.2		0.4				

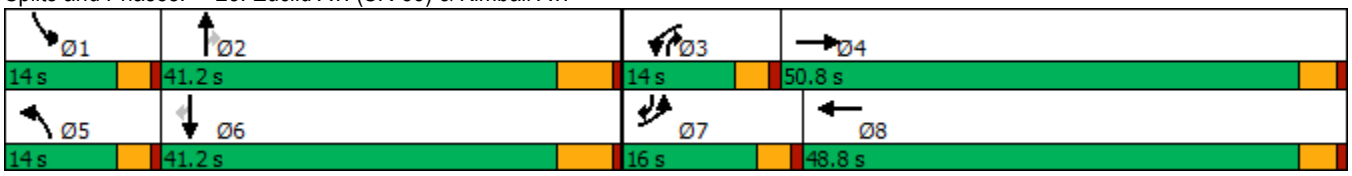
Intersection Summary			
HCM 6th Ctrl Delay		47.6	
HCM 6th LOS		D	

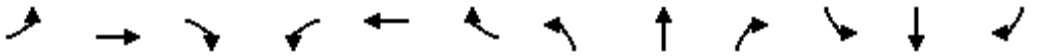
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	135	259	55	780	104	868	49	224	722	404
Future Volume (vph)	135	259	55	780	104	868	49	224	722	404
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	3	8	5	2	3	1	6	7
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	7
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	14.0	49.5	14.0	45.5	14.0	36.0	14.0	9.0	33.0	14.0
Total Split (s)	16.0	50.8	14.0	48.8	14.0	41.2	14.0	14.0	41.2	16.0
Total Split (%)	13.3%	42.3%	11.7%	40.7%	11.7%	34.3%	11.7%	11.7%	34.3%	13.3%
Yellow Time (s)	3.0	3.5	3.0	3.5	3.0	5.0	3.0	3.0	5.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.5	4.0	4.5	4.0	6.0	4.0	4.0	6.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	None	Min	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 113
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 28: Euclid Av. (SR-83) & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	259	40	55	780	323	104	868	49	224	722	404
Future Volume (veh/h)	135	259	40	55	780	323	104	868	49	224	722	404
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1600	1800	1800	1700	1800	1800	1700	1800	1800	1600	1800	1800
Adj Flow Rate, veh/h	138	264	32	56	796	294	106	886	38	229	737	283
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	267	1143	137	121	871	322	143	997	559	271	1010	583
Arrive On Green	0.09	0.37	0.37	0.07	0.36	0.36	0.09	0.29	0.29	0.09	0.30	0.30
Sat Flow, veh/h	2956	3075	369	1619	2445	902	1619	3420	1525	2956	3420	1506
Grp Volume(v), veh/h	138	146	150	56	556	534	106	886	38	229	737	283
Grp Sat Flow(s),veh/h/ln	1478	1710	1734	1619	1710	1638	1619	1710	1525	1478	1710	1506
Q Serve(g_s), s	4.9	6.4	6.5	3.6	33.8	33.9	7.0	27.0	1.8	8.3	21.1	15.5
Cycle Q Clear(g_c), s	4.9	6.4	6.5	3.6	33.8	33.9	7.0	27.0	1.8	8.3	21.1	15.5
Prop In Lane	1.00		0.21	1.00		0.55	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	267	636	645	121	609	584	143	997	559	271	1010	583
V/C Ratio(X)	0.52	0.23	0.23	0.46	0.91	0.91	0.74	0.89	0.07	0.84	0.73	0.49
Avail Cap(c_a), veh/h	326	727	737	149	695	666	149	1105	607	271	1105	625
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.3	23.5	23.5	48.3	33.4	33.5	48.5	36.9	22.4	48.7	34.5	25.3
Incr Delay (d2), s/veh	0.6	0.2	0.2	1.0	14.4	15.0	15.2	8.5	0.1	19.9	2.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	2.5	2.6	1.4	15.6	15.0	3.3	11.6	0.6	3.7	8.4	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.8	23.7	23.7	49.3	47.8	48.5	63.7	45.4	22.5	68.6	36.7	25.9
LnGrp LOS	D	C	C	D	D	D	E	D	C	E	D	C
Approach Vol, veh/h		434			1146			1030			1249	
Approach Delay, s/veh		31.4			48.2			46.4			40.1	
Approach LOS		C			D			D			D	

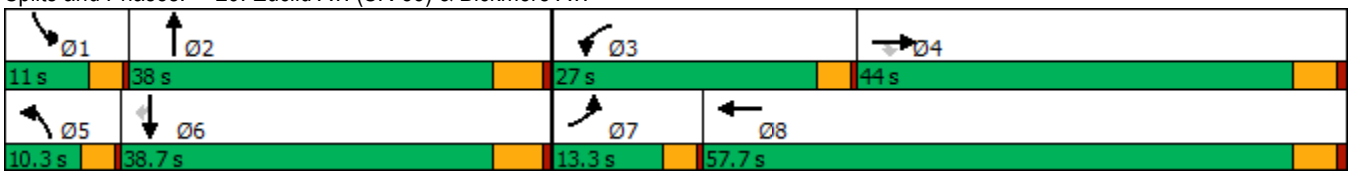
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	37.8	12.2	45.0	13.6	38.2	13.8	43.3
Change Period (Y+Rc), s	4.0	6.0	4.0	4.5	4.0	6.0	4.0	4.5
Max Green Setting (Gmax), s	10.0	35.2	10.0	46.3	10.0	35.2	12.0	44.3
Max Q Clear Time (g_c+I1), s	10.3	29.0	5.6	8.5	9.0	23.1	6.9	35.9
Green Ext Time (p_c), s	0.0	2.8	0.0	1.6	0.0	4.2	0.1	2.9

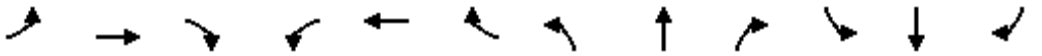
Intersection Summary	
HCM 6th Ctrl Delay	43.2
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	70	12	41	194	221	88	684	46	648	215
Future Volume (vph)	70	12	41	194	221	88	684	46	648	215
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.5	44.0	44.0	8.5	44.0	8.5	26.5	8.5	30.5	30.5
Total Split (s)	13.3	44.0	44.0	27.0	57.7	10.3	38.0	11.0	38.7	38.7
Total Split (%)	11.1%	36.7%	36.7%	22.5%	48.1%	8.6%	31.7%	9.2%	32.3%	32.3%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	3.0	4.5	3.0	4.5	4.5
All-Red Time (s)	0.5	1.0	1.0	0.5	1.0	0.5	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.5	3.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 83.4
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 29: Euclid Av. (SR-83) & Bickmore Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	12	41	194	221	167	88	684	30	46	648	215
Future Volume (veh/h)	70	12	41	194	221	167	88	684	30	46	648	215
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	78	13	42	216	246	147	98	760	26	51	720	191
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	100	324	274	263	296	177	121	1026	35	78	950	424
Arrive On Green	0.06	0.18	0.18	0.16	0.28	0.28	0.07	0.30	0.30	0.05	0.28	0.28
Sat Flow, veh/h	1619	1800	1525	1619	1056	631	1619	3374	115	1619	3420	1525
Grp Volume(v), veh/h	78	13	42	216	0	393	98	385	401	51	720	191
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1619	0	1686	1619	1710	1779	1619	1710	1525
Q Serve(g_s), s	2.7	0.3	1.3	7.4	0.0	12.5	3.4	11.6	11.6	1.8	11.1	5.9
Cycle Q Clear(g_c), s	2.7	0.3	1.3	7.4	0.0	12.5	3.4	11.6	11.6	1.8	11.1	5.9
Prop In Lane	1.00		1.00	1.00		0.37	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	100	324	274	263	0	473	121	520	541	78	950	424
V/C Ratio(X)	0.78	0.04	0.15	0.82	0.00	0.83	0.81	0.74	0.74	0.65	0.76	0.45
Avail Cap(c_a), veh/h	276	1223	1037	663	0	1549	192	968	1008	212	1979	883
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.5	19.4	19.8	23.2	0.0	19.4	26.1	17.9	17.9	26.8	19.0	17.1
Incr Delay (d2), s/veh	4.8	0.0	0.1	2.4	0.0	1.5	5.9	0.8	0.8	3.3	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.1	0.4	2.7	0.0	4.4	1.3	3.6	3.8	0.7	3.5	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.3	19.5	19.9	25.7	0.0	20.8	32.0	18.7	18.7	30.2	19.4	17.4
LnGrp LOS	C	B	B	C	A	C	C	B	B	C	B	B
Approach Vol, veh/h		133			609			884			962	
Approach Delay, s/veh		26.6			22.6			20.2			19.6	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	23.0	12.8	15.3	7.8	21.4	7.1	21.1
Change Period (Y+Rc), s	3.5	5.5	3.5	5.0	3.5	5.5	3.5	5.0
Max Green Setting (Gmax), s	7.5	32.5	23.5	39.0	6.8	33.2	9.8	52.7
Max Q Clear Time (g_c+I1), s	3.8	13.6	9.4	3.3	5.4	13.1	4.7	14.5
Green Ext Time (p_c), s	0.0	2.4	0.2	0.1	0.0	2.9	0.0	1.5

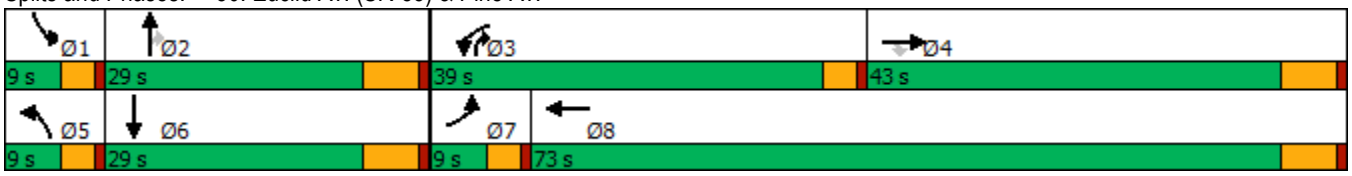
Intersection Summary	
HCM 6th Ctrl Delay	20.8
HCM 6th LOS	C

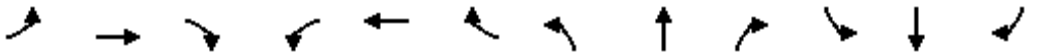
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	8	191	53	1080	351	66	760	707	58	705
Future Volume (vph)	8	191	53	1080	351	66	760	707	58	705
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4		3	8	5	2	3	1	6
Permitted Phases			4					2		
Detector Phase	7	4	4	3	8	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.0	43.0	43.0	9.0	45.0	9.0	11.0	9.0	9.0	29.0
Total Split (s)	9.0	43.0	43.0	39.0	73.0	9.0	29.0	39.0	9.0	29.0
Total Split (%)	7.5%	35.8%	35.8%	32.5%	60.8%	7.5%	24.2%	32.5%	7.5%	24.2%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0	3.0	3.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	4.0	6.0	4.0	4.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 102.9
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 30: Euclid Av. (SR-83) & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	191	53	1080	351	88	66	760	707	58	705	17
Future Volume (veh/h)	8	191	53	1080	351	88	66	760	707	58	705	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1600	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	8	197	0	1113	362	89	68	784	473	60	727	14
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	16	254		1079	692	170	84	820	915	74	802	15
Arrive On Green	0.01	0.14	0.00	0.36	0.50	0.50	0.05	0.24	0.24	0.05	0.23	0.23
Sat Flow, veh/h	1619	1800	1525	2956	1395	343	1619	3420	1493	1619	3432	66
Grp Volume(v), veh/h	8	197	0	1113	0	451	68	784	473	60	362	379
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1478	0	1738	1619	1710	1493	1619	1710	1788
Q Serve(g_s), s	0.5	10.1	0.0	35.0	0.0	16.9	4.0	21.7	17.6	3.5	19.8	19.8
Cycle Q Clear(g_c), s	0.5	10.1	0.0	35.0	0.0	16.9	4.0	21.7	17.6	3.5	19.8	19.8
Prop In Lane	1.00		1.00	1.00		0.20	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	16	254		1079	0	862	84	820	915	74	399	418
V/C Ratio(X)	0.49	0.78		1.03	0.00	0.52	0.81	0.96	0.52	0.81	0.91	0.91
Avail Cap(c_a), veh/h	84	694		1079	0	1214	84	820	915	84	410	429
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.2	39.7	0.0	30.5	0.0	16.5	45.0	36.0	11.0	45.3	35.7	35.7
Incr Delay (d2), s/veh	8.4	7.1	0.0	35.9	0.0	0.7	39.2	21.2	0.2	34.0	22.4	21.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	4.8	0.0	16.5	0.0	6.0	2.4	10.7	4.7	2.0	10.0	10.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.6	46.9	0.0	66.3	0.0	17.2	84.2	57.1	11.2	79.4	58.1	57.5
LnGrp LOS	E	D		F	A	B	F	E	B	E	E	E
Approach Vol, veh/h		205	A		1564			1325			801	
Approach Delay, s/veh		47.2			52.2			42.1			59.4	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.4	29.0	39.0	19.5	9.0	28.4	5.0	53.6
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	5.0	23.0	35.0	37.0	5.0	23.0	5.0	67.0
Max Q Clear Time (g_c+I1), s	5.5	23.7	37.0	12.1	6.0	21.8	2.5	18.9
Green Ext Time (p_c), s	0.0	0.0	0.0	1.4	0.0	0.4	0.0	4.2

Intersection Summary	
HCM 6th Ctrl Delay	50.0
HCM 6th LOS	D

Notes

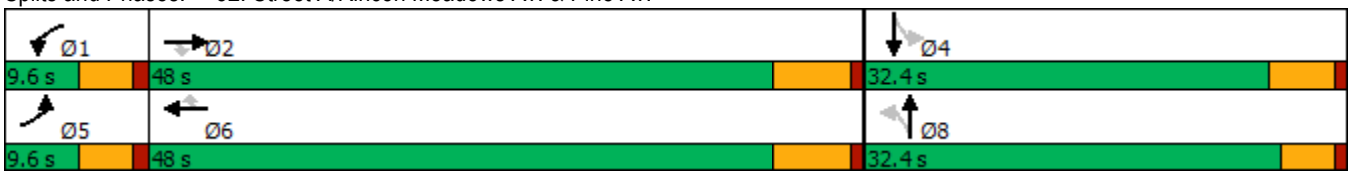
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

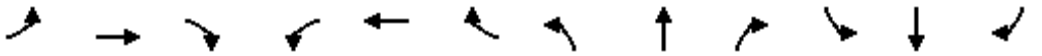
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	18	939	12	5	1457	67	33	5	22	2
Future Volume (vph)	18	939	12	5	1457	67	33	5	22	2
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	NA
Protected Phases	5	2		1	6			8		4
Permitted Phases			2			6	8		4	
Detector Phase	5	2	2	1	6	6	8	8	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.2	28.2	9.6	28.2	28.2	31.6	31.6	32.4	32.4
Total Split (s)	9.6	48.0	48.0	9.6	48.0	48.0	32.4	32.4	32.4	32.4
Total Split (%)	10.7%	53.3%	53.3%	10.7%	53.3%	53.3%	36.0%	36.0%	36.0%	36.0%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	5.2	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	6.2	4.6	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 69.9
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 32: Street A/Rincon Meadows Av. & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	939	12	5	1457	67	33	5	13	22	2	23
Future Volume (veh/h)	18	939	12	5	1457	67	33	5	13	22	2	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	20	1021	13	5	1584	73	36	5	14	24	2	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	37	2151	960	11	2095	934	262	53	149	270	15	181
Arrive On Green	0.02	0.63	0.63	0.01	0.61	0.61	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	1619	3420	1525	1714	3420	1525	1405	418	1171	1416	114	1429
Grp Volume(v), veh/h	20	1021	13	5	1584	73	36	0	19	24	0	27
Grp Sat Flow(s),veh/h/ln	1619	1710	1525	1714	1710	1525	1405	0	1589	1416	0	1543
Q Serve(g_s), s	0.8	10.8	0.2	0.2	22.8	1.3	1.6	0.0	0.7	1.0	0.0	1.1
Cycle Q Clear(g_c), s	0.8	10.8	0.2	0.2	22.8	1.3	2.7	0.0	0.7	1.8	0.0	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.74	1.00		0.93
Lane Grp Cap(c), veh/h	37	2151	960	11	2095	934	262	0	202	270	0	196
V/C Ratio(X)	0.53	0.47	0.01	0.44	0.76	0.08	0.14	0.00	0.09	0.09	0.00	0.14
Avail Cap(c_a), veh/h	119	2151	960	126	2095	934	656	0	647	651	0	610
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.0	6.7	4.7	33.8	9.5	5.4	27.7	0.0	26.3	27.1	0.0	26.5
Incr Delay (d2), s/veh	4.3	0.8	0.0	9.6	2.6	0.2	0.2	0.0	0.2	0.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	2.6	0.0	0.1	6.0	0.3	0.5	0.0	0.3	0.3	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.3	7.4	4.8	43.4	12.1	5.5	27.9	0.0	26.5	27.2	0.0	26.8
LnGrp LOS	D	A	A	D	B	A	C	A	C	C	A	C
Approach Vol, veh/h		1054			1662			55			51	
Approach Delay, s/veh		8.0			11.9			27.4			27.0	
Approach LOS		A			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.1	49.1		14.1	6.2	48.0		14.1				
Change Period (Y+Rc), s	4.6	6.2		5.4	4.6	6.2		* 5.4				
Max Green Setting (Gmax), s	5.0	41.8		27.0	5.0	41.8		* 28				
Max Q Clear Time (g_c+I1), s	2.2	12.8		3.8	2.8	24.8		4.7				
Green Ext Time (p_c), s	0.0	7.3		0.1	0.0	10.1		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		11.0
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

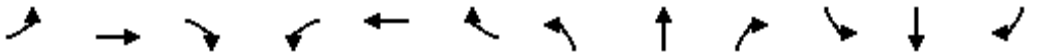
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	36	846	78	75	1403	130	73	16	31	35
Future Volume (vph)	36	846	78	75	1403	130	73	16	31	35
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	NA
Protected Phases	7	4		3	8			2		6
Permitted Phases			4			8	2		6	
Detector Phase	7	4	4	3	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	16.2	9.6	23.2	23.2	15.8	15.8	15.2	15.2
Total Split (s)	9.6	88.4	88.4	15.3	94.1	94.1	16.3	16.3	16.3	16.3
Total Split (%)	8.0%	73.7%	73.7%	12.8%	78.4%	78.4%	13.6%	13.6%	13.6%	13.6%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	5.2	4.8	4.8	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	6.2	5.8	5.8	5.2	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 118
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 34: Chino Corona Rd. & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	846	78	75	1403	130	73	16	37	31	35	48
Future Volume (veh/h)	36	846	78	75	1403	130	73	16	37	31	35	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	38	891	0	79	1477	110	77	17	34	33	37	50
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	49	2432		98	1334	1131	107	47	95	137	61	83
Arrive On Green	0.03	0.71	0.00	0.06	0.74	0.74	0.09	0.09	0.09	0.09	0.09	0.09
Sat Flow, veh/h	1619	3420	1525	1619	1800	1525	1257	536	1071	1299	694	938
Grp Volume(v), veh/h	38	891	0	79	1477	110	77	0	51	33	0	87
Grp Sat Flow(s),veh/h/ln	1619	1710	1525	1619	1800	1525	1257	0	1607	1299	0	1631
Q Serve(g_s), s	2.8	12.1	0.0	5.7	87.9	2.4	4.4	0.0	3.5	2.9	0.0	6.1
Cycle Q Clear(g_c), s	2.8	12.1	0.0	5.7	87.9	2.4	10.5	0.0	3.5	6.5	0.0	6.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.67	1.00		0.57
Lane Grp Cap(c), veh/h	49	2432		98	1334	1131	107	0	142	137	0	144
V/C Ratio(X)	0.78	0.37		0.81	1.11	0.10	0.72	0.00	0.36	0.24	0.00	0.60
Avail Cap(c_a), veh/h	68	2432		146	1334	1131	107	0	142	144	0	153
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.1	6.7	0.0	55.0	15.3	4.3	57.9	0.0	50.9	53.9	0.0	52.0
Incr Delay (d2), s/veh	20.0	0.4	0.0	10.7	59.4	0.2	20.3	0.0	1.5	0.9	0.0	5.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	3.6	0.0	2.5	46.5	0.6	2.9	0.0	1.5	1.0	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.1	7.1	0.0	65.7	74.7	4.4	78.2	0.0	52.4	54.8	0.0	58.0
LnGrp LOS	E	A		E	F	A	E	A	D	D	A	E
Approach Vol, veh/h		929	A		1666			128			120	
Approach Delay, s/veh		10.0			69.7			67.9			57.1	
Approach LOS		A			E			E			E	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		16.3	11.8	90.5		16.3	8.2	94.1				
Change Period (Y+Rc), s		5.8	4.6	6.2		* 5.8	4.6	6.2				
Max Green Setting (Gmax), s		10.5	10.7	82.2		* 11	5.0	87.9				
Max Q Clear Time (g_c+I1), s		12.5	7.7	14.1		8.5	4.8	89.9				
Green Ext Time (p_c), s		0.0	0.0	6.6		0.1	0.0	0.0				

Intersection Summary												
HCM 6th Ctrl Delay			49.6									
HCM 6th LOS			D									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

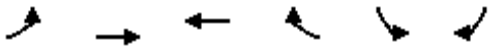
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	24	890	1595	80	13
Future Volume (vph)	24	890	1595	80	13
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	7	4	8	6	
Permitted Phases					6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	14.7	14.7
Total Split (s)	11.4	99.4	88.0	20.6	20.6
Total Split (%)	9.5%	82.8%	73.3%	17.2%	17.2%
Yellow Time (s)	3.6	4.8	4.8	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.7	4.7
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 98.8
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 36: Pine Av. & West Preserve Loop





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	24	890	1595	243	80	13
Future Volume (veh/h)	24	890	1595	243	80	13
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1700	1800
Adj Flow Rate, veh/h	26	947	1697	249	85	12
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	42	2701	2152	308	166	156
Arrive On Green	0.03	0.79	0.72	0.72	0.10	0.10
Sat Flow, veh/h	1619	3510	3093	430	1619	1525
Grp Volume(v), veh/h	26	947	948	998	85	12
Grp Sat Flow(s),veh/h/ln	1619	1710	1710	1723	1619	1525
Q Serve(g_s), s	1.6	7.9	34.4	38.0	4.9	0.7
Cycle Q Clear(g_c), s	1.6	7.9	34.4	38.0	4.9	0.7
Prop In Lane	1.00			0.25	1.00	1.00
Lane Grp Cap(c), veh/h	42	2701	1226	1235	166	156
V/C Ratio(X)	0.62	0.35	0.77	0.81	0.51	0.08
Avail Cap(c_a), veh/h	113	3281	1441	1451	264	249
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.0	3.0	8.8	9.3	41.5	39.6
Incr Delay (d2), s/veh	14.0	0.1	2.6	3.4	2.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	1.3	9.2	10.4	2.0	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	61.0	3.1	11.4	12.7	43.9	39.8
LnGrp LOS	E	A	B	B	D	D
Approach Vol, veh/h		973	1946		97	
Approach Delay, s/veh		4.6	12.0		43.4	
Approach LOS		A	B		D	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	82.9	14.7	7.1	75.7
Change Period (Y+Rc), s	5.8	4.7	4.6	5.8
Max Green Setting (Gmax), s	93.6	15.9	6.8	82.2
Max Q Clear Time (g_c+I1), s	9.9	6.9	3.6	40.0
Green Ext Time (p_c), s	11.4	0.1	0.0	29.9

Intersection Summary	
HCM 6th Ctrl Delay	10.6
HCM 6th LOS	B

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	939	30	18	1783	55	53
Future Volume (vph)	939	30	18	1783	55	53
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	35.8	35.8	9.6	15.8	10.1	10.1
Total Split (s)	89.0	89.0	13.0	102.0	18.0	18.0
Total Split (%)	74.2%	74.2%	10.8%	85.0%	15.0%	15.0%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.1	5.1
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 90.2
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 39: East Preserve Loop & Pine Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	939	30	18	1783	55	53
Future Volume (veh/h)	939	30	18	1783	55	53
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1800	1800	1700	1800	1600	1800
Adj Flow Rate, veh/h	999	29	19	1897	59	35
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	2304	1028	34	2544	410	212
Arrive On Green	0.67	0.67	0.02	0.74	0.14	0.14
Sat Flow, veh/h	3510	1525	1619	3510	2956	1525
Grp Volume(v), veh/h	999	29	19	1897	59	35
Grp Sat Flow(s),veh/h/ln	1710	1525	1619	1710	1478	1525
Q Serve(g_s), s	12.5	0.6	1.1	29.6	1.6	1.9
Cycle Q Clear(g_c), s	12.5	0.6	1.1	29.6	1.6	1.9
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2304	1028	34	2544	410	212
V/C Ratio(X)	0.43	0.03	0.56	0.75	0.14	0.17
Avail Cap(c_a), veh/h	3061	1365	146	3540	410	212
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.0	5.0	45.1	6.8	35.2	35.3
Incr Delay (d2), s/veh	0.2	0.0	5.4	0.7	0.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.1	0.5	6.3	0.6	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.2	5.1	50.4	7.6	35.9	37.0
LnGrp LOS	A	A	D	A	D	D
Approach Vol, veh/h	1028			1916	94	
Approach Delay, s/veh	7.1			8.0	36.3	
Approach LOS	A			A	D	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		18.0	6.5	68.4		75.0
Change Period (Y+Rc), s		5.1	4.6	5.8		5.8
Max Green Setting (Gmax), s		12.9	8.4	83.2		96.2
Max Q Clear Time (g_c+I1), s		3.9	3.1	14.5		31.6
Green Ext Time (p_c), s		0.1	0.0	12.5		37.5

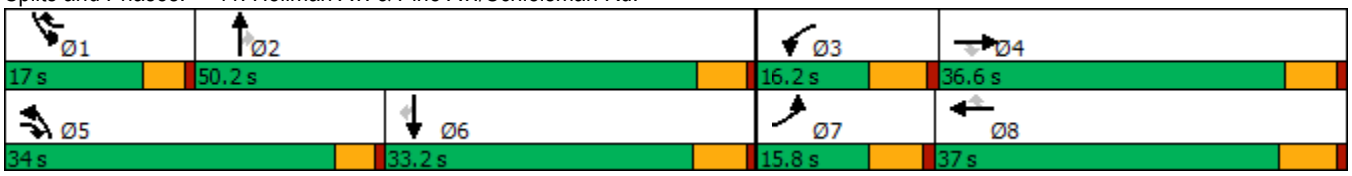
Intersection Summary	
HCM 6th Ctrl Delay	8.6
HCM 6th LOS	A

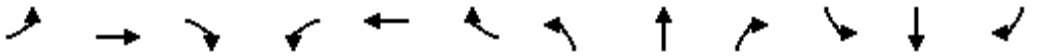
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	535	493	85	1114	317	579	475	95	105	158	17
Future Volume (vph)	36	535	493	85	1114	317	579	475	95	105	158	17
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	5	3	8	1	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	34.8	9.6	16.2	35.2	9.6	9.6	32.4	32.4	9.6	32.8	32.8
Total Split (s)	15.8	36.6	34.0	16.2	37.0	17.0	34.0	50.2	50.2	17.0	33.2	33.2
Total Split (%)	13.2%	30.5%	28.3%	13.5%	30.8%	14.2%	28.3%	41.8%	41.8%	14.2%	27.7%	27.7%
Yellow Time (s)	4.8	4.8	3.6	5.2	5.2	3.6	3.6	4.4	4.4	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	6.2	6.2	4.6	4.6	5.4	5.4	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 110.8
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 41: Hellman Av. & Pine Av./Schleisman Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	535	493	85	1114	317	579	475	95	105	158	17
Future Volume (veh/h)	36	535	493	85	1114	317	579	475	95	105	158	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1600	1800	1800	1600	1800	1800	1600	1800	1800	1600	1800	1800
Adj Flow Rate, veh/h	37	546	365	87	1137	210	591	485	54	107	161	14
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	257	1268	726	257	1285	478	645	1384	617	153	815	364
Arrive On Green	0.09	0.26	0.26	0.09	0.26	0.26	0.22	0.40	0.40	0.05	0.24	0.24
Sat Flow, veh/h	2956	4914	1525	2956	4914	1525	2956	3420	1525	2956	3420	1525
Grp Volume(v), veh/h	37	546	365	87	1137	210	591	485	54	107	161	14
Grp Sat Flow(s),veh/h/ln	1478	1638	1525	1478	1638	1525	1478	1710	1525	1478	1710	1525
Q Serve(g_s), s	1.3	10.7	18.9	3.2	25.5	12.6	22.5	11.3	2.5	4.1	4.3	0.8
Cycle Q Clear(g_c), s	1.3	10.7	18.9	3.2	25.5	12.6	22.5	11.3	2.5	4.1	4.3	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	257	1268	726	257	1285	478	645	1384	617	153	815	364
V/C Ratio(X)	0.14	0.43	0.50	0.34	0.88	0.44	0.92	0.35	0.09	0.70	0.20	0.04
Avail Cap(c_a), veh/h	257	1317	742	257	1317	488	756	1384	617	319	815	364
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.5	35.6	20.7	49.3	40.8	31.4	43.9	23.7	21.1	53.6	35.0	33.6
Incr Delay (d2), s/veh	0.4	0.3	0.8	1.1	7.6	0.9	13.5	0.7	0.3	2.1	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	4.1	6.4	1.2	10.7	4.5	9.0	4.4	0.9	1.5	1.8	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.9	35.9	21.5	50.4	48.4	32.3	57.4	24.4	21.4	55.7	35.5	33.8
LnGrp LOS	D	D	C	D	D	C	E	C	C	E	D	C
Approach Vol, veh/h		948			1434			1130			282	
Approach Delay, s/veh		30.9			46.2			41.5			43.1	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.6	52.3	16.2	35.8	29.7	33.2	15.8	36.2
Change Period (Y+Rc), s	4.6	* 5.8	6.2	* 6.2	4.6	5.8	5.8	6.2
Max Green Setting (Gmax), s	12.4	* 45	10.0	* 31	29.4	27.4	10.0	30.8
Max Q Clear Time (g_c+I1), s	6.1	13.3	5.2	20.9	24.5	6.3	3.3	27.5
Green Ext Time (p_c), s	0.1	4.6	0.1	4.4	0.6	1.1	0.0	2.5

Intersection Summary	
HCM 6th Ctrl Delay	40.7
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	338	855	870	343	214	515
Future Volume (vph)	338	855	870	343	214	515
Turn Type	Prot	pm+ov	NA	pm+ov	Prot	NA
Protected Phases	8	1	2	8	1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	36.3	11.0	46.3	36.3	11.0	11.0
Total Split (s)	36.3	26.0	57.7	36.3	26.0	83.7
Total Split (%)	30.3%	21.7%	48.1%	30.3%	21.7%	69.8%
Yellow Time (s)	4.3	4.0	4.3	4.3	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.0	5.3	5.3	5.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 114.6
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 42: Archibald Av. & Limonite Av.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	338	855	870	343	214	515
Future Volume (veh/h)	338	855	870	343	214	515
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	352	835	906	310	223	536
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	487	659	865	1166	254	1214
Arrive On Green	0.27	0.27	0.46	0.46	0.14	0.64
Sat Flow, veh/h	1810	1610	1900	1610	1810	1900
Grp Volume(v), veh/h	352	835	906	310	223	536
Grp Sat Flow(s),veh/h/ln	1810	1610	1900	1610	1810	1900
Q Serve(g_s), s	20.3	31.0	52.4	7.6	13.9	16.3
Cycle Q Clear(g_c), s	20.3	31.0	52.4	7.6	13.9	16.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	487	659	865	1166	254	1214
V/C Ratio(X)	0.72	1.27	1.05	0.27	0.88	0.44
Avail Cap(c_a), veh/h	487	659	865	1166	330	1298
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.2	34.0	31.4	5.4	48.5	10.5
Incr Delay (d2), s/veh	4.5	131.7	43.9	0.1	18.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	41.0	32.2	5.3	7.3	5.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	42.7	165.7	75.3	5.6	67.3	10.6
LnGrp LOS	D	F	F	A	E	B
Approach Vol, veh/h	1187		1216			759
Approach Delay, s/veh	129.2		57.5			27.2
Approach LOS	F		E			C

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	21.2	57.7			78.9	36.3
Change Period (Y+Rc), s	5.0	5.3			* 5.3	5.3
Max Green Setting (Gmax), s	21.0	52.4			* 79	31.0
Max Q Clear Time (g_c+I1), s	15.9	54.4			18.3	33.0
Green Ext Time (p_c), s	0.3	0.0			1.8	0.0

Intersection Summary	
HCM 6th Ctrl Delay	77.2
HCM 6th LOS	E

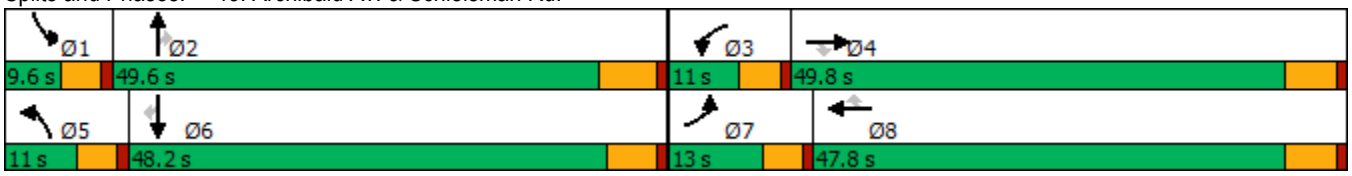
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	460	409	135	263	753	149	272	839	228	110	472	500
Future Volume (vph)	460	409	135	263	753	149	272	839	228	110	472	500
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	47.8	47.8	9.6	47.8	47.8	9.6	48.2	48.2	9.6	47.4	47.4
Total Split (s)	13.0	49.8	49.8	11.0	47.8	47.8	11.0	49.6	49.6	9.6	48.2	48.2
Total Split (%)	10.8%	41.5%	41.5%	9.2%	39.8%	39.8%	9.2%	41.3%	41.3%	8.0%	40.2%	40.2%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	5.2	5.2	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	6.2	6.2	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 113.4
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 43: Archibald Av. & Schleisman Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	460	409	135	263	753	149	272	839	228	110	472	500
Future Volume (veh/h)	460	409	135	263	753	149	272	839	228	110	472	500
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	511	454	86	292	837	89	302	932	180	122	524	434
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	261	2017	616	199	1925	590	199	1676	520	155	1611	493
Arrive On Green	0.07	0.39	0.39	0.06	0.37	0.37	0.06	0.32	0.32	0.04	0.31	0.31
Sat Flow, veh/h	3510	5187	1584	3510	5187	1590	3510	5187	1610	3510	5187	1588
Grp Volume(v), veh/h	511	454	86	292	837	89	302	932	180	122	524	434
Grp Sat Flow(s),veh/h/ln	1755	1729	1584	1755	1729	1590	1755	1729	1610	1755	1729	1588
Q Serve(g_s), s	8.4	6.6	4.0	6.4	13.7	4.2	6.4	16.8	9.6	3.9	8.8	29.3
Cycle Q Clear(g_c), s	8.4	6.6	4.0	6.4	13.7	4.2	6.4	16.8	9.6	3.9	8.8	29.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	261	2017	616	199	1925	590	199	1676	520	155	1611	493
V/C Ratio(X)	1.96	0.23	0.14	1.47	0.43	0.15	1.52	0.56	0.35	0.79	0.33	0.88
Avail Cap(c_a), veh/h	261	2017	616	199	1925	590	199	1990	618	155	1962	601
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.4	23.2	22.3	53.4	26.7	23.7	53.4	31.6	29.2	53.5	29.9	37.0
Incr Delay (d2), s/veh	446.0	0.3	0.5	237.1	0.7	0.5	258.4	0.3	0.4	21.2	0.1	12.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.7	2.6	1.5	9.3	5.5	1.6	9.8	6.7	3.6	2.1	3.5	12.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	498.4	23.4	22.8	290.4	27.4	24.2	311.8	31.9	29.6	74.8	30.0	49.3
LnGrp LOS	F	C	C	F	C	C	F	C	C	E	C	D
Approach Vol, veh/h		1051			1218			1414			1080	
Approach Delay, s/veh		254.3			90.2			91.4			42.8	
Approach LOS		F			F			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	42.7	11.0	49.8	11.0	41.3	13.0	47.8
Change Period (Y+Rc), s	4.6	6.2	4.6	5.8	4.6	* 6.2	4.6	5.8
Max Green Setting (Gmax), s	5.0	43.4	6.4	44.0	6.4	* 43	8.4	42.0
Max Q Clear Time (g_c+I1), s	5.9	18.8	8.4	8.6	8.4	31.3	10.4	15.7
Green Ext Time (p_c), s	0.0	6.8	0.0	3.3	0.0	3.7	0.0	6.0

Intersection Summary	
HCM 6th Ctrl Delay	116.0
HCM 6th LOS	F

Notes

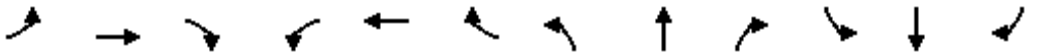
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	WBT	WBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1036	73	852	292	977	0
Future Volume (vph)	1036	73	852	292	977	0
Turn Type	NA	Perm	NA	Perm	Perm	NA
Protected Phases	2		6			4
Permitted Phases		2		6	4	
Detector Phase	2	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	22.8	22.8	15.8	15.8
Total Split (s)	23.0	23.0	23.0	23.0	42.0	42.0
Total Split (%)	35.4%	35.4%	35.4%	35.4%	64.6%	64.6%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max	Max	None	None

Intersection Summary
Cycle Length: 65
Actuated Cycle Length: 65
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Central Av. & SR-71 SB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱↱				↰	✣	
Traffic Volume (veh/h)	0	1036	73	0	852	292	0	0	0	977	0	879
Future Volume (veh/h)	0	1036	73	0	852	292	0	0	0	977	0	879
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	0	1114	0	0	916	0				901	210	750
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1373		0	1373					1008	203	725
Arrive On Green	0.00	0.26	0.00	0.00	0.26	0.00				0.56	0.56	0.56
Sat Flow, veh/h	0	5358	1610	0	5358	2834				1810	364	1301
Grp Volume(v), veh/h	0	1114	0	0	916	0				901	0	960
Grp Sat Flow(s),veh/h/ln	0	1729	1610	0	1729	1417				1810	0	1666
Q Serve(g_s), s	0.0	13.1	0.0	0.0	10.3	0.0				28.6	0.0	36.2
Cycle Q Clear(g_c), s	0.0	13.1	0.0	0.0	10.3	0.0				28.6	0.0	36.2
Prop In Lane	0.00		1.00	0.00		1.00				1.00		0.78
Lane Grp Cap(c), veh/h	0	1373		0	1373					1008	0	928
V/C Ratio(X)	0.00	0.81		0.00	0.67					0.89	0.00	1.03
Avail Cap(c_a), veh/h	0	1373		0	1373					1008	0	928
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	22.4	0.0	0.0	21.3	0.0				12.7	0.0	14.4
Incr Delay (d2), s/veh	0.0	5.3	0.0	0.0	2.6	0.0				10.3	0.0	38.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.3	0.0	0.0	3.9	0.0				10.9	0.0	19.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	27.7	0.0	0.0	23.9	0.0				23.0	0.0	53.3
LnGrp LOS	A	C		A	C					C	A	F
Approach Vol, veh/h		1114	A		916	A					1861	
Approach Delay, s/veh		27.7			23.9						38.6	
Approach LOS		C			C						D	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		23.0		42.0		23.0						
Change Period (Y+Rc), s		5.8		5.8		5.8						
Max Green Setting (Gmax), s		17.2		36.2		17.2						
Max Q Clear Time (g_c+I1), s		15.1		38.2		12.3						
Green Ext Time (p_c), s		1.6		0.0		2.9						

Intersection Summary		
HCM 6th Ctrl Delay		32.0
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

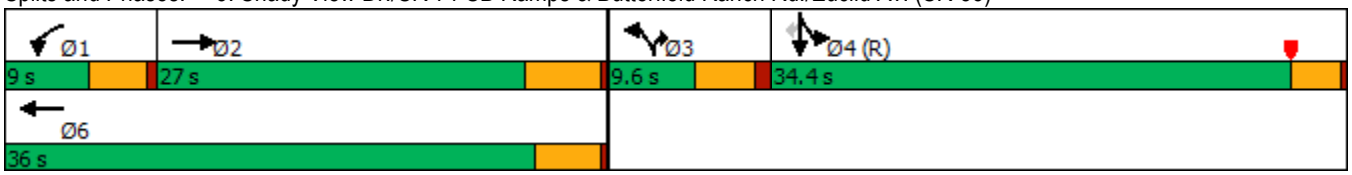
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

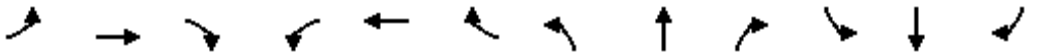
Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	903	128	281	18	156	687	70	71
Future Volume (vph)	903	128	281	18	156	687	70	71
Turn Type	NA	Prot	NA	Prot	Prot	Split	NA	Perm
Protected Phases	2	1	6	3	3	4	4	
Permitted Phases								4
Detector Phase	2	1	6	3	3	4	4	4
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	9.0	26.5	9.5	9.5	32.5	32.5	32.5
Total Split (s)	27.0	9.0	36.0	9.6	9.6	34.4	34.4	34.4
Total Split (%)	33.8%	11.3%	45.0%	12.0%	12.0%	43.0%	43.0%	43.0%
Yellow Time (s)	4.5	3.5	4.0	3.5	3.5	3.0	3.0	3.0
All-Red Time (s)	0.5	0.5	0.5	1.0	1.0	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	4.5	4.5	4.5	3.5	3.5	3.5
Lead/Lag	Lag	Lead		Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	None	None	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 4:SBTL, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 3: Shady View Dr./SR-71 SB Ramps & Butterfield Ranch Rd./Euclid Av. (SR-83)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	903	62	128	281	0	18	0	156	687	70	71
Future Volume (veh/h)	0	903	62	128	281	0	18	0	156	687	70	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	1900	0	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	941	53	133	293	0	19	0	103	768	0	47
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	955	54	113	1399		0	0	0	1832	0	815
Arrive On Green	0.00	0.28	0.28	0.02	0.13	0.00	0.00	0.00	0.00	0.51	0.00	0.51
Sat Flow, veh/h	0	3569	196	1810	3705	0		0		3619	0	1610
Grp Volume(v), veh/h	0	489	505	133	293	0		0.0		768	0	47
Grp Sat Flow(s),veh/h/ln	0	1805	1865	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	21.5	21.5	5.0	5.8	0.0				10.6	0.0	1.2
Cycle Q Clear(g_c), s	0.0	21.5	21.5	5.0	5.8	0.0				10.6	0.0	1.2
Prop In Lane	0.00		0.10	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	496	513	113	1399					1832	0	815
V/C Ratio(X)	0.00	0.98	0.98	1.18	0.21					0.42	0.00	0.06
Avail Cap(c_a), veh/h	0	496	513	113	1421					1832	0	815
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.77	0.77	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	28.8	28.8	39.2	23.9	0.0				12.4	0.0	10.0
Incr Delay (d2), s/veh	0.0	36.3	35.7	129.3	0.0	0.0				0.7	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	13.4	13.7	6.2	2.4	0.0				3.8	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	65.1	64.5	168.5	23.9	0.0				13.1	0.0	10.2
LnGrp LOS	A	E	E	F	C					B	A	B
Approach Vol, veh/h		994			426	A					815	
Approach Delay, s/veh		64.8			69.1						12.9	
Approach LOS		E			E						B	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.0	27.0		44.0		36.0						
Change Period (Y+Rc), s	4.0	5.0		3.5		* 5						
Max Green Setting (Gmax), s	5.0	22.0		30.9		* 32						
Max Q Clear Time (g_c+I1), s	7.0	23.5		12.6		7.8						
Green Ext Time (p_c), s	0.0	0.0		2.9		1.3						

Intersection Summary												
HCM 6th Ctrl Delay			46.7									
HCM 6th LOS			D									

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

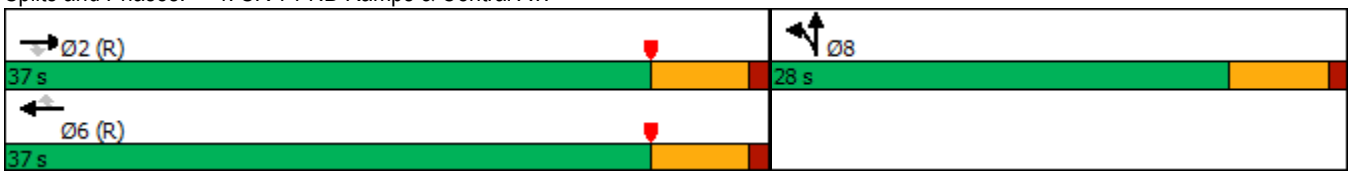
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	1561	453	993	807	152	0
Future Volume (vph)	1561	453	993	807	152	0
Turn Type	NA	Perm	NA	Perm	Split	NA
Protected Phases	2		6		8	8
Permitted Phases		2		6		
Detector Phase	2	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	15.8	15.8	22.8	22.8
Total Split (s)	37.0	37.0	37.0	37.0	28.0	28.0
Total Split (%)	56.9%	56.9%	56.9%	56.9%	43.1%	43.1%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 63.9 (98%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 4: SR-71 NB Ramps & Central Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰	↕				
Traffic Volume (veh/h)	0	1561	453	0	993	807	152	0	371	0	0	0
Future Volume (veh/h)	0	1561	453	0	993	807	152	0	371	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	0	1609	0	0	1024	0	157	0	201			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	0	3388		0	3388		305	0	271			
Arrive On Green	0.00	0.65	0.00	0.00	0.65	0.00	0.17	0.00	0.17			
Sat Flow, veh/h	0	5358	1610	0	5358	1610	1810	0	1610			
Grp Volume(v), veh/h	0	1609	0	0	1024	0	157	0	201			
Grp Sat Flow(s),veh/h/ln	0	1729	1610	0	1729	1610	1810	0	1610			
Q Serve(g_s), s	0.0	10.1	0.0	0.0	5.5	0.0	5.1	0.0	7.7			
Cycle Q Clear(g_c), s	0.0	10.1	0.0	0.0	5.5	0.0	5.1	0.0	7.7			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3388		0	3388		305	0	271			
V/C Ratio(X)	0.00	0.47		0.00	0.30		0.52	0.00	0.74			
Avail Cap(c_a), veh/h	0	3388		0	3388		618	0	550			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.33	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	5.7	0.0	0.0	4.9	0.0	24.6	0.0	25.7			
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.2	0.0	1.3	0.0	4.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	2.2	0.0	0.0	1.2	0.0	2.1	0.0	2.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	5.8	0.0	0.0	5.1	0.0	26.0	0.0	29.7			
LnGrp LOS	A	A		A	A		C	A	C			
Approach Vol, veh/h		1609	A		1024	A		358				
Approach Delay, s/veh		5.8			5.1			28.0				
Approach LOS		A			A			C				

Timer - Assigned Phs	2				6		8					
Phs Duration (G+Y+Rc), s	48.3				48.3		16.7					
Change Period (Y+Rc), s	5.8				5.8		5.8					
Max Green Setting (Gmax), s	31.2				31.2		22.2					
Max Q Clear Time (g_c+I1), s	12.1				7.5		9.7					
Green Ext Time (p_c), s	10.7				7.0		1.2					

Intersection Summary		
HCM 6th Ctrl Delay	8.2	
HCM 6th LOS	A	

Notes

User approved volume balancing among the lanes for turning movement.

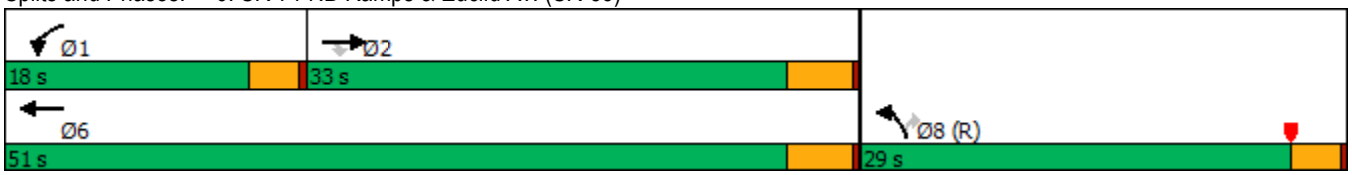
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	885	159	389	1159	135	1069
Future Volume (vph)	885	159	389	1159	135	1069
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	32.5	32.5	8.5	9.5	8.5	8.5
Total Split (s)	33.0	33.0	18.0	51.0	29.0	29.0
Total Split (%)	41.3%	41.3%	22.5%	63.8%	36.3%	36.3%
Yellow Time (s)	4.0	4.0	3.0	4.0	3.0	3.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	3.5	4.5	3.5	3.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 9.5 (12%), Referenced to phase 4: and 8:NBL, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 6: SR-71 NB Ramps & Euclid Av. (SR-83)





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	885	159	389	1159	135	1069
Future Volume (veh/h)	885	159	389	1159	135	1069
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1029	0	452	1348	157	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1158		328	1970	1243	
Arrive On Green	0.43	0.00	0.18	0.55	0.35	0.00
Sat Flow, veh/h	3705	1610	1810	3705	3510	1610
Grp Volume(v), veh/h	1029	0	452	1348	157	0
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805	1755	1610
Q Serve(g_s), s	21.1	0.0	14.5	21.7	2.4	0.0
Cycle Q Clear(g_c), s	21.1	0.0	14.5	21.7	2.4	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1158		328	1970	1243	
V/C Ratio(X)	0.89		1.38	0.68	0.13	
Avail Cap(c_a), veh/h	1286		328	2098	1243	
HCM Platoon Ratio	1.33	1.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.35	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	21.6	0.0	32.8	13.2	17.5	0.0
Incr Delay (d2), s/veh	2.7	0.0	188.2	0.9	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	0.0	22.8	6.8	0.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.3	0.0	221.0	14.0	17.7	0.0
LnGrp LOS	C		F	B	B	
Approach Vol, veh/h	1029	A		1800	157	A
Approach Delay, s/veh	24.3			66.0	17.7	
Approach LOS	C			E	B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	18.0	30.2				48.2	31.8
Change Period (Y+Rc), s	3.5	4.5				4.5	3.5
Max Green Setting (Gmax), s	14.5	28.5				46.5	25.5
Max Q Clear Time (g_c+I1), s	16.5	23.1				23.7	4.4
Green Ext Time (p_c), s	0.0	2.6				9.4	0.2

Intersection Summary		
HCM 6th Ctrl Delay	49.1	
HCM 6th LOS	D	

Notes

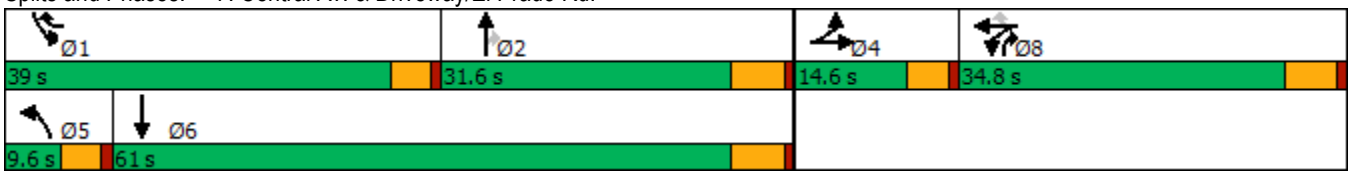
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

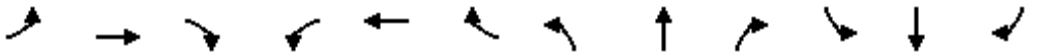
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	18	13	705	3	523	6	801	916	677	904
Future Volume (vph)	18	13	705	3	523	6	801	916	677	904
Turn Type	Split	NA	Split	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	4	4	8	8	1	5	2	8	1	6
Permitted Phases					8			2		
Detector Phase	4	4	8	8	1	5	2	8	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	34.8	34.8	9.6	9.6	27.8	34.8	9.6	24.8
Total Split (s)	14.6	14.6	34.8	34.8	39.0	9.6	31.6	34.8	39.0	61.0
Total Split (%)	12.2%	12.2%	29.0%	29.0%	32.5%	8.0%	26.3%	29.0%	32.5%	50.8%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	5.8	4.6	4.6	5.8	5.8	4.6	5.8
Lead/Lag					Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 114.2
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Central Av. & Driveway/El Prado Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	13	8	705	3	523	6	801	916	677	904	19
Future Volume (veh/h)	18	13	8	705	3	523	6	801	916	677	904	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	19	14	3	736	0	290	6	834	614	705	942	18
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	96	85	18	787	0	822	12	760	708	480	2536	48
Arrive On Green	0.06	0.06	0.06	0.24	0.00	0.24	0.01	0.22	0.22	0.30	0.51	0.51
Sat Flow, veh/h	1619	1437	308	3238	0	1524	1619	3420	1515	1619	4964	95
Grp Volume(v), veh/h	19	0	17	736	0	290	6	834	614	705	621	339
Grp Sat Flow(s),veh/h/ln	1619	0	1745	1619	0	1524	1619	1710	1515	1619	1638	1783
Q Serve(g_s), s	1.3	0.0	1.1	25.8	0.0	12.6	0.4	25.8	25.8	34.4	13.3	13.3
Cycle Q Clear(g_c), s	1.3	0.0	1.1	25.8	0.0	12.6	0.4	25.8	25.8	34.4	13.3	13.3
Prop In Lane	1.00		0.18	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	96	0	103	787	0	822	12	760	708	480	1674	911
V/C Ratio(X)	0.20	0.00	0.16	0.93	0.00	0.35	0.49	1.10	0.87	1.47	0.37	0.37
Avail Cap(c_a), veh/h	139	0	150	809	0	833	70	760	708	480	1674	911
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.0	0.0	51.9	43.0	0.0	15.2	57.4	45.1	23.5	40.8	17.1	17.1
Incr Delay (d2), s/veh	0.4	0.0	0.3	17.2	0.0	0.1	10.8	62.5	13.6	222.5	0.6	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.5	11.7	0.0	4.0	0.2	17.1	20.3	42.7	4.8	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.4	0.0	52.2	60.3	0.0	15.3	68.2	107.7	37.1	263.3	17.8	18.3
LnGrp LOS	D	A	D	E	A	B	E	F	D	F	B	B
Approach Vol, veh/h		36			1026			1454			1665	
Approach Delay, s/veh		52.3			47.5			77.7			121.9	
Approach LOS		D			D			E			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	39.0	31.6		11.5	5.5	65.1		34.0				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		5.8				
Max Green Setting (Gmax), s	34.4	25.8		10.0	5.0	55.2		29.0				
Max Q Clear Time (g_c+I1), s	36.4	27.8		3.3	2.4	15.3		27.8				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	6.7		0.4				

Intersection Summary		
HCM 6th Ctrl Delay		87.7
HCM 6th LOS		F

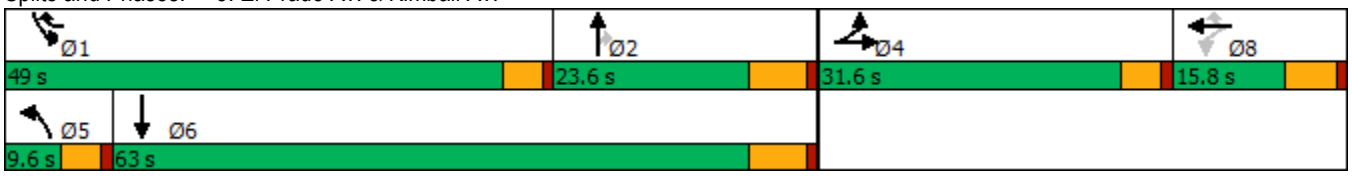
Notes

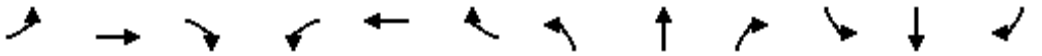
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	34	14	26	5	887	4	285	34	996	347
Future Volume (vph)	34	14	26	5	887	4	285	34	996	347
Turn Type	Split	NA	Perm	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	4	4		8	1	5	2		1	6
Permitted Phases			8		8			2		
Detector Phase	4	4	8	8	1	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	15.8	15.8	9.6	9.6	16.2	16.2	9.6	24.2
Total Split (s)	31.6	31.6	15.8	15.8	49.0	9.6	23.6	23.6	49.0	63.0
Total Split (%)	26.3%	26.3%	13.2%	13.2%	40.8%	8.0%	19.7%	19.7%	40.8%	52.5%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		5.8	4.6	4.6	6.2	6.2	4.6	6.2
Lead/Lag					Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 94.2
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: El Prado Av. & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	14	5	26	5	887	4	285	34	996	347	12
Future Volume (veh/h)	34	14	5	26	5	887	4	285	34	996	347	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	36	15	3	28	5	499	4	303	32	1060	369	12
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	125	113	23	145	26	823	9	311	263	713	2053	67
Arrive On Green	0.08	0.08	0.08	0.10	0.10	0.10	0.01	0.17	0.17	0.44	0.61	0.61
Sat Flow, veh/h	1619	1456	291	1465	262	1518	1619	1800	1525	1619	3378	110
Grp Volume(v), veh/h	36	0	18	33	0	499	4	303	32	1060	186	195
Grp Sat Flow(s),veh/h/ln	1619	0	1748	1727	0	1518	1619	1800	1525	1619	1710	1777
Q Serve(g_s), s	2.1	0.0	1.0	1.8	0.0	10.0	0.2	16.9	1.8	44.4	4.8	4.9
Cycle Q Clear(g_c), s	2.1	0.0	1.0	1.8	0.0	10.0	0.2	16.9	1.8	44.4	4.8	4.9
Prop In Lane	1.00		0.17	0.85		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	125	0	135	171	0	823	9	311	263	713	1039	1080
V/C Ratio(X)	0.29	0.00	0.13	0.19	0.00	0.61	0.47	0.98	0.12	1.49	0.18	0.18
Avail Cap(c_a), veh/h	434	0	468	171	0	823	80	311	263	713	1039	1080
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	0.0	43.4	41.7	0.0	15.9	50.0	41.5	35.2	28.2	8.7	8.7
Incr Delay (d2), s/veh	1.2	0.0	0.4	0.5	0.0	1.3	14.2	45.1	0.9	226.3	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.4	0.8	0.0	7.2	0.1	11.0	0.7	60.0	1.6	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.1	0.0	43.8	42.2	0.0	17.2	64.2	86.6	36.2	254.5	9.1	9.1
LnGrp LOS	D	A	D	D	A	B	E	F	D	F	A	A
Approach Vol, veh/h		54			532			339			1441	
Approach Delay, s/veh		44.7			18.7			81.6			189.6	
Approach LOS		D			B			F			F	

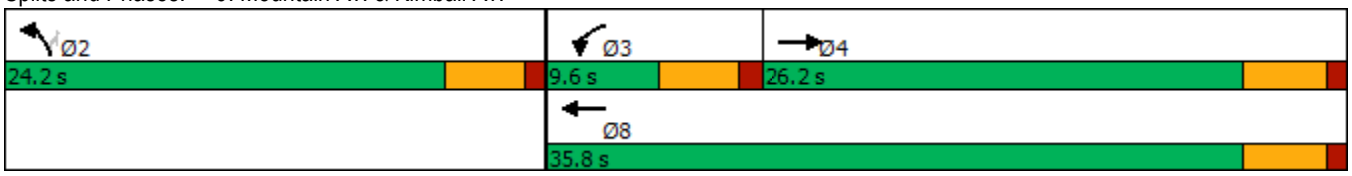
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	49.0	23.6		12.4	5.1	67.5		15.8				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		5.8				
Max Green Setting (Gmax), s	44.4	17.4		27.0	5.0	56.8		10.0				
Max Q Clear Time (g_c+I1), s	46.4	18.9		4.1	2.2	6.9		12.0				
Green Ext Time (p_c), s	0.0	0.0		0.1	0.0	2.0		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		132.4
HCM 6th LOS		F

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	1004	27	736	195	89
Future Volume (vph)	1004	27	736	195	89
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	4	3	8	2	
Permitted Phases					2
Detector Phase	4	3	8	2	2
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	24.7	9.6	14.7	23.6	23.6
Total Split (s)	26.2	9.6	35.8	24.2	24.2
Total Split (%)	43.7%	16.0%	59.7%	40.3%	40.3%
Yellow Time (s)	3.7	3.6	3.7	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.6	4.7	4.6	4.6
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	Max	None	Max	None	None

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 53.7
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 9: Mountain Av. & Kimball Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1004	104	27	736	195	89
Future Volume (veh/h)	1004	104	27	736	195	89
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1800	1800	1700	1800	1700	1800
Adj Flow Rate, veh/h	1080	110	29	791	210	77
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1550	158	54	2118	317	298
Arrive On Green	0.49	0.49	0.03	0.62	0.20	0.20
Sat Flow, veh/h	3224	319	1619	3510	1619	1525
Grp Volume(v), veh/h	589	601	29	791	210	77
Grp Sat Flow(s),veh/h/ln	1710	1743	1619	1710	1619	1525
Q Serve(g_s), s	13.3	13.4	0.9	5.8	6.0	2.1
Cycle Q Clear(g_c), s	13.3	13.4	0.9	5.8	6.0	2.1
Prop In Lane		0.18	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	846	862	54	2118	317	298
V/C Ratio(X)	0.70	0.70	0.54	0.37	0.66	0.26
Avail Cap(c_a), veh/h	846	862	161	2118	632	595
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.8	9.8	23.9	4.7	18.7	17.1
Incr Delay (d2), s/veh	4.7	4.7	3.1	0.5	2.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	4.3	0.3	1.0	2.1	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	14.5	14.4	27.0	5.2	21.1	17.6
LnGrp LOS	B	B	C	A	C	B
Approach Vol, veh/h	1190			820	287	
Approach Delay, s/veh	14.5			6.0	20.1	
Approach LOS	B			A	C	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		14.4	6.3	29.5		35.8
Change Period (Y+Rc), s		4.6	4.6	* 4.7		* 4.7
Max Green Setting (Gmax), s		19.6	5.0	* 22		* 31
Max Q Clear Time (g_c+I1), s		8.0	2.9	15.4		7.8
Green Ext Time (p_c), s		0.6	0.0	3.5		5.2

Intersection Summary	
HCM 6th Ctrl Delay	12.2
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	84	62	100	133	51	69
Future Vol, veh/h	84	62	100	133	51	69
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	100	74	119	158	61	82

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	402	198	0	0	277	0
Stage 1	198	-	-	-	-	-
Stage 2	204	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	608	848	-	-	1298	-
Stage 1	840	-	-	-	-	-
Stage 2	835	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	579	848	-	-	1298	-
Mov Cap-2 Maneuver	637	-	-	-	-	-
Stage 1	840	-	-	-	-	-
Stage 2	796	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	3.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	637	848	1298	-
HCM Lane V/C Ratio	-	-	0.157	0.087	0.047	-
HCM Control Delay (s)	-	-	11.7	9.7	7.9	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.6	0.3	0.1	-

Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	47	186	0	34	120
Future Vol, veh/h	0	47	186	0	34	120
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	51	202	0	37	130

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	406	202	0	0	202	0
Stage 1	202	-	-	-	-	-
Stage 2	204	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	605	844	-	-	1382	-
Stage 1	837	-	-	-	-	-
Stage 2	835	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	589	844	-	-	1382	-
Mov Cap-2 Maneuver	645	-	-	-	-	-
Stage 1	837	-	-	-	-	-
Stage 2	812	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	1.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	844	1382	-
HCM Lane V/C Ratio	-	-	0.061	0.027	-
HCM Control Delay (s)	-	-	9.5	7.7	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

Intersection	
Int Delay, s/veh	5.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	33	116	70	23	85	35
Future Vol, veh/h	33	116	70	23	85	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	36	126	76	25	92	38

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	311	89	0	0	101	0
Stage 1	89	-	-	-	-	-
Stage 2	222	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	686	975	-	-	1504	-
Stage 1	940	-	-	-	-	-
Stage 2	820	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	644	975	-	-	1504	-
Mov Cap-2 Maneuver	669	-	-	-	-	-
Stage 1	940	-	-	-	-	-
Stage 2	770	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	5.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	885	1504	-
HCM Lane V/C Ratio	-	-	0.183	0.061	-
HCM Control Delay (s)	-	-	10	7.5	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.7	0.2	-

Intersection	
Int Delay, s/veh	2.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	33	22	72	24	15	53
Future Vol, veh/h	33	22	72	24	15	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	36	24	78	26	16	58

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	181	91	0	0	104	0
Stage 1	91	-	-	-	-	-
Stage 2	90	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	813	972	-	-	1500	-
Stage 1	938	-	-	-	-	-
Stage 2	939	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	804	972	-	-	1500	-
Mov Cap-2 Maneuver	793	-	-	-	-	-
Stage 1	938	-	-	-	-	-
Stage 2	929	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	1.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	856	1500	-
HCM Lane V/C Ratio	-	-	0.07	0.011	-
HCM Control Delay (s)	-	-	9.5	7.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	2.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	63	23	122	49	46	504
Future Vol, veh/h	63	23	122	49	46	504
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	73	27	142	57	53	586

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	863	171	0	0	199	0
Stage 1	171	-	-	-	-	-
Stage 2	692	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	328	878	-	-	1385	-
Stage 1	864	-	-	-	-	-
Stage 2	500	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	309	878	-	-	1385	-
Mov Cap-2 Maneuver	309	-	-	-	-	-
Stage 1	864	-	-	-	-	-
Stage 2	472	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.1	0	0.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	374	1385	-
HCM Lane V/C Ratio	-	-	0.267	0.039	-
HCM Control Delay (s)	-	-	18.1	7.7	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1.1	0.1	-

Intersection	
Intersection Delay, s/veh	18.4
Intersection LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1	0	145	567	1
Future Vol, veh/h	0	1	0	145	567	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	1	0	158	616	1
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	8.7	9.1	20.8
HCM LOS	A	A	C

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	100%
Vol Thru, %	100%	0%	0%
Vol Right, %	0%	100%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1	145	568
LT Vol	0	0	567
Through Vol	1	0	0
RT Vol	0	145	1
Lane Flow Rate	1	158	617
Geometry Grp	1	1	1
Degree of Util (X)	0.002	0.209	0.768
Departure Headway (Hd)	5.601	4.773	4.478
Convergence, Y/N	Yes	Yes	Yes
Cap	636	752	809
Service Time	3.657	2.808	2.511
HCM Lane V/C Ratio	0.002	0.21	0.763
HCM Control Delay	8.7	9.1	20.8
HCM Lane LOS	A	A	C
HCM 95th-tile Q	0	0.8	7.5

Intersection	
Int Delay, s/veh	2.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	184	0	42	147	0	59
Future Vol, veh/h	184	0	42	147	0	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	200	0	46	160	0	64

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	200	0	452	200
Stage 1	-	-	-	-	200	-
Stage 2	-	-	-	-	252	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1384	-	569	846
Stage 1	-	-	-	-	838	-
Stage 2	-	-	-	-	795	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1384	-	550	846
Mov Cap-2 Maneuver	-	-	-	-	616	-
Stage 1	-	-	-	-	838	-
Stage 2	-	-	-	-	769	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.7	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	846	-	-	1384	-
HCM Lane V/C Ratio	0.076	-	-	0.033	-
HCM Control Delay (s)	9.6	-	-	7.7	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	243	0	7	188	0	9
Future Vol, veh/h	243	0	7	188	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	264	0	8	204	0	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	264	0	484	264
Stage 1	-	-	-	-	264	-
Stage 2	-	-	-	-	220	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1312	-	545	780
Stage 1	-	-	-	-	785	-
Stage 2	-	-	-	-	821	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1312	-	542	780
Mov Cap-2 Maneuver	-	-	-	-	612	-
Stage 1	-	-	-	-	785	-
Stage 2	-	-	-	-	816	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	9.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	780	-	-	1312	-
HCM Lane V/C Ratio	0.013	-	-	0.006	-
HCM Control Delay (s)	9.7	-	-	7.8	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	252	0	7	195	0	9
Future Vol, veh/h	252	0	7	195	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	274	0	8	212	0	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	274	0	502	274
Stage 1	-	-	-	-	274	-
Stage 2	-	-	-	-	228	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1301	-	533	770
Stage 1	-	-	-	-	777	-
Stage 2	-	-	-	-	815	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1301	-	530	770
Mov Cap-2 Maneuver	-	-	-	-	604	-
Stage 1	-	-	-	-	777	-
Stage 2	-	-	-	-	810	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	9.7
HCM LOS			A

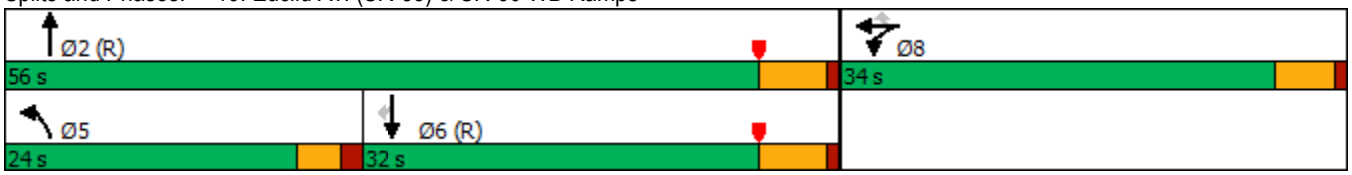
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	770	-	-	1301	-
HCM Lane V/C Ratio	0.013	-	-	0.006	-
HCM Control Delay (s)	9.7	-	-	7.8	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

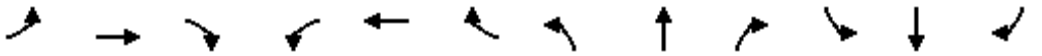
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	660	6	415	356	1112	1036	502
Future Volume (vph)	660	6	415	356	1112	1036	502
Turn Type	Split	NA	Perm	Prot	NA	NA	Perm
Protected Phases	8	8		5	2	6	
Permitted Phases			8				6
Detector Phase	8	8	8	5	2	6	6
Switch Phase							
Minimum Initial (s)	6.0	6.0	6.0	5.0	10.0	10.0	10.0
Minimum Split (s)	11.0	11.0	11.0	9.5	22.5	22.5	22.5
Total Split (s)	34.0	34.0	34.0	24.0	56.0	32.0	32.0
Total Split (%)	37.8%	37.8%	37.8%	26.7%	62.2%	35.6%	35.6%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.5	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.5	5.5	5.5	5.5
Lead/Lag				Lead		Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 63 (70%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 19: Euclid Av. (SR-83) & SR-60 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	660	6	415	356	1112	0	0	1036	502
Future Volume (veh/h)	0	0	0	660	6	415	356	1112	0	0	1036	502
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				768	0	169	371	1158	0	0	1079	318
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				876	0	389	392	2315	0	0	1352	603
Arrive On Green				0.24	0.00	0.24	0.43	1.00	0.00	0.00	0.37	0.37
Sat Flow, veh/h				3619	0	1608	1810	3705	0	0	3705	1610
Grp Volume(v), veh/h				768	0	169	371	1158	0	0	1079	318
Grp Sat Flow(s),veh/h/ln				1810	0	1608	1810	1805	0	0	1805	1610
Q Serve(g_s), s				18.4	0.0	8.0	17.7	0.0	0.0	0.0	24.0	13.9
Cycle Q Clear(g_c), s				18.4	0.0	8.0	17.7	0.0	0.0	0.0	24.0	13.9
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				876	0	389	392	2315	0	0	1352	603
V/C Ratio(X)				0.88	0.00	0.43	0.95	0.50	0.00	0.00	0.80	0.53
Avail Cap(c_a), veh/h				1166	0	518	392	2315	0	0	1352	603
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.36	0.36	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				32.8	0.0	28.9	25.0	0.0	0.0	0.0	25.1	21.9
Incr Delay (d2), s/veh				5.0	0.0	0.3	15.8	0.3	0.0	0.0	5.0	3.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.1	0.0	2.9	6.8	0.1	0.0	0.0	10.4	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				37.8	0.0	29.2	40.8	0.3	0.0	0.0	30.1	25.2
LnGrp LOS				D	A	C	D	A	A	A	C	C
Approach Vol, veh/h					937			1529			1397	
Approach Delay, s/veh					36.2			10.1			29.0	
Approach LOS					D			B			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	63.2		24.0	39.2		26.8						
Change Period (Y+Rc), s	5.5		4.5	5.5		5.0						
Max Green Setting (Gmax), s	50.5		19.5	26.5		29.0						
Max Q Clear Time (g_c+I1), s	2.0		19.7	26.0		20.4						
Green Ext Time (p_c), s	15.8		0.0	0.4		1.4						

Intersection Summary		
HCM 6th Ctrl Delay	23.3	
HCM 6th LOS	C	

Notes

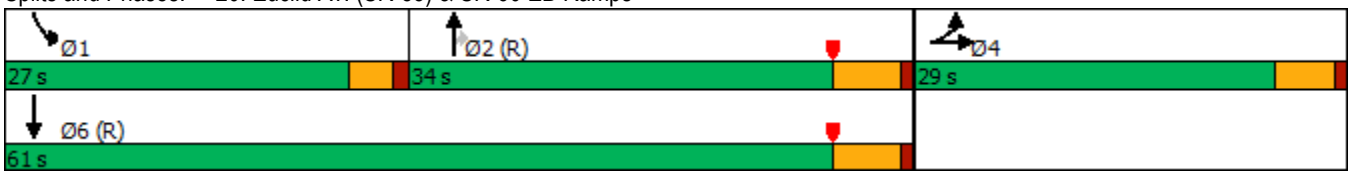
User approved volume balancing among the lanes for turning movement.

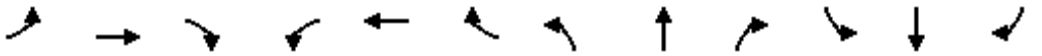
Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	424	3	1044	653	383	1313
Future Volume (vph)	424	3	1044	653	383	1313
Turn Type	Split	NA	NA	Perm	Prot	NA
Protected Phases	4	4	2		1	6
Permitted Phases				2		
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	6.0	6.0	10.0	10.0	5.0	10.0
Minimum Split (s)	11.0	11.0	22.5	22.5	9.0	22.5
Total Split (s)	29.0	29.0	34.0	34.0	27.0	61.0
Total Split (%)	32.2%	32.2%	37.8%	37.8%	30.0%	67.8%
Yellow Time (s)	4.0	4.0	4.5	4.5	3.0	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.5	5.5	4.0	5.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Min	C-Min	None	C-Min

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 20: Euclid Av. (SR-83) & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	424	3	393	0	0	0	0	1044	653	383	1313	0
Future Volume (veh/h)	424	3	393	0	0	0	0	1044	653	383	1313	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	385	70	334				0	1065	472	391	1340	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	475	75	359				0	1251	545	416	2241	0
Arrive On Green	0.26	0.26	0.26				0.00	0.35	0.35	0.46	1.00	0.00
Sat Flow, veh/h	1810	287	1367				0	3705	1572	1810	3705	0
Grp Volume(v), veh/h	385	0	404				0	1065	472	391	1340	0
Grp Sat Flow(s),veh/h/ln	1810	0	1654				0	1805	1572	1810	1805	0
Q Serve(g_s), s	17.9	0.0	21.5				0.0	24.6	25.2	18.5	0.0	0.0
Cycle Q Clear(g_c), s	17.9	0.0	21.5				0.0	24.6	25.2	18.5	0.0	0.0
Prop In Lane	1.00		0.83				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	475	0	434				0	1251	545	416	2241	0
V/C Ratio(X)	0.81	0.00	0.93				0.00	0.85	0.87	0.94	0.60	0.00
Avail Cap(c_a), veh/h	483	0	441				0	1251	545	462	2241	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.50	0.50	0.34	0.34	0.00
Uniform Delay (d), s/veh	31.1	0.0	32.4				0.0	27.3	27.5	23.7	0.0	0.0
Incr Delay (d2), s/veh	9.2	0.0	25.7				0.0	3.9	9.3	11.6	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	0.0	11.0				0.0	10.5	10.2	6.5	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.3	0.0	58.1				0.0	31.2	36.8	35.3	0.4	0.0
LnGrp LOS	D	A	E				A	C	D	D	A	A
Approach Vol, veh/h		789						1537			1731	
Approach Delay, s/veh		49.4						32.9			8.3	
Approach LOS		D						C			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	24.7	36.7		28.6		61.4
Change Period (Y+Rc), s	4.0	5.5		5.0		5.5
Max Green Setting (Gmax), s	23.0	28.5		24.0		55.5
Max Q Clear Time (g_c+I1), s	20.5	27.2		23.5		2.0
Green Ext Time (p_c), s	0.2	1.1		0.2		20.5

Intersection Summary		
HCM 6th Ctrl Delay		25.6
HCM 6th LOS		C

Notes

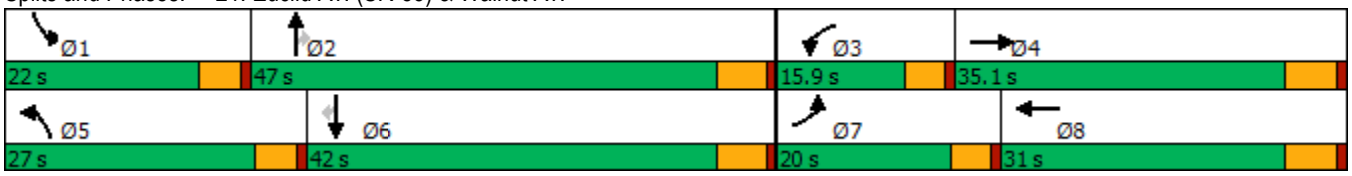
User approved volume balancing among the lanes for turning movement.

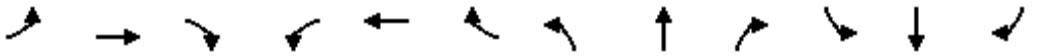
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	109	377	71	377	192	1420	75	268	1247	149
Future Volume (vph)	109	377	71	377	192	1420	75	268	1247	149
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.8	9.6	29.8	9.6	27.4	27.4	9.6	29.4	29.4
Total Split (s)	20.0	35.1	15.9	31.0	27.0	47.0	47.0	22.0	42.0	42.0
Total Split (%)	16.7%	29.3%	13.3%	25.8%	22.5%	39.2%	39.2%	18.3%	35.0%	35.0%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 110.4
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 21: Euclid Av. (SR-83) & Walnut Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	377	144	71	377	143	192	1420	75	268	1247	149
Future Volume (veh/h)	109	377	144	71	377	143	192	1420	75	268	1247	149
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1600	1800	1800
Adj Flow Rate, veh/h	116	401	130	76	401	126	204	1511	53	285	1327	105
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	141	563	180	95	494	153	233	1989	616	344	1853	575
Arrive On Green	0.09	0.22	0.22	0.06	0.19	0.19	0.14	0.40	0.40	0.12	0.38	0.38
Sat Flow, veh/h	1619	2537	812	1619	2554	792	1619	4914	1523	2956	4914	1524
Grp Volume(v), veh/h	116	269	262	76	267	260	204	1511	53	285	1327	105
Grp Sat Flow(s),veh/h/ln	1619	1710	1640	1619	1710	1636	1619	1638	1523	1478	1638	1524
Q Serve(g_s), s	7.2	14.9	15.2	4.8	15.3	15.7	12.7	27.2	2.2	9.7	23.7	4.7
Cycle Q Clear(g_c), s	7.2	14.9	15.2	4.8	15.3	15.7	12.7	27.2	2.2	9.7	23.7	4.7
Prop In Lane	1.00		0.50	1.00		0.48	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	141	379	364	95	330	316	233	1989	616	344	1853	575
V/C Ratio(X)	0.82	0.71	0.72	0.80	0.81	0.82	0.87	0.76	0.09	0.83	0.72	0.18
Avail Cap(c_a), veh/h	243	487	467	178	419	401	353	1989	616	500	1853	575
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.1	36.9	37.0	47.8	39.6	39.8	43.1	26.3	18.9	44.4	27.3	21.4
Incr Delay (d2), s/veh	4.5	3.3	3.9	5.8	8.9	10.5	10.2	2.8	0.3	4.9	2.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	6.3	6.2	2.0	7.0	7.0	5.6	10.4	0.8	3.7	9.2	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.6	40.2	40.9	53.6	48.5	50.3	53.3	29.1	19.1	49.4	29.7	22.1
LnGrp LOS	D	D	D	D	D	D	D	C	B	D	C	C
Approach Vol, veh/h		647			603			1768			1717	
Approach Delay, s/veh		42.4			49.9			31.6			32.5	
Approach LOS		D			D			C			C	

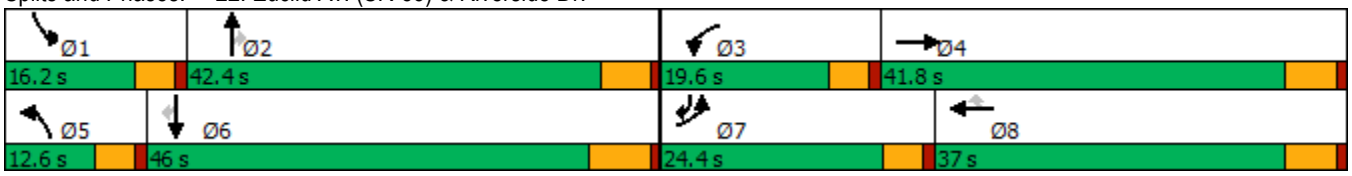
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.6	47.0	10.6	28.6	19.4	44.2	13.6	25.7
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	17.4	41.6	11.3	29.3	22.4	36.6	15.4	25.2
Max Q Clear Time (g_c+I1), s	11.7	29.2	6.8	17.2	14.7	25.7	9.2	17.7
Green Ext Time (p_c), s	0.3	7.9	0.0	2.3	0.2	6.5	0.1	1.7

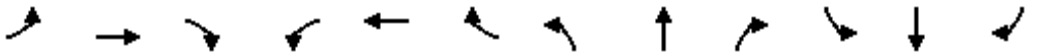
Intersection Summary	
HCM 6th Ctrl Delay	35.7
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	154	467	192	417	65	84	1232	248	142	1059	196
Future Volume (vph)	154	467	192	417	65	84	1232	248	142	1059	196
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4	3	8		5	2		1	6	7
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	25.8	9.6	31.8	31.8	9.6	30.4	30.4	9.6	34.5	9.6
Total Split (s)	24.4	41.8	19.6	37.0	37.0	12.6	42.4	42.4	16.2	46.0	24.4
Total Split (%)	20.3%	34.8%	16.3%	30.8%	30.8%	10.5%	35.3%	35.3%	13.5%	38.3%	20.3%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Euclid Av. (SR-83) & Riverside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	154	467	85	192	417	65	84	1232	248	142	1059	196
Future Volume (veh/h)	154	467	85	192	417	65	84	1232	248	142	1059	196
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	160	486	64	200	434	52	88	1283	204	148	1103	113
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	184	463	61	201	1051	468	107	1045	466	155	1147	679
Arrive On Green	0.11	0.30	0.30	0.12	0.31	0.31	0.07	0.31	0.31	0.10	0.34	0.34
Sat Flow, veh/h	1619	1558	205	1619	3420	1524	1619	3420	1525	1619	3420	1506
Grp Volume(v), veh/h	160	0	550	200	434	52	88	1283	204	148	1103	113
Grp Sat Flow(s),veh/h/ln	1619	0	1763	1619	1710	1524	1619	1710	1525	1619	1710	1506
Q Serve(g_s), s	11.8	0.0	36.0	15.0	12.2	3.0	6.5	37.0	13.0	11.0	38.3	5.4
Cycle Q Clear(g_c), s	11.8	0.0	36.0	15.0	12.2	3.0	6.5	37.0	13.0	11.0	38.3	5.4
Prop In Lane	1.00		0.12	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	184	0	524	201	1051	468	107	1045	466	155	1147	679
V/C Ratio(X)	0.87	0.00	1.05	1.00	0.41	0.11	0.82	1.23	0.44	0.95	0.96	0.17
Avail Cap(c_a), veh/h	265	0	524	201	1051	468	107	1045	466	155	1147	679
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.7	0.0	42.6	53.0	33.3	30.1	55.8	42.0	33.7	54.5	39.5	19.9
Incr Delay (d2), s/veh	14.1	0.0	52.9	62.7	0.3	0.1	36.2	111.1	3.0	58.1	18.9	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	0.0	22.7	9.4	4.9	1.1	3.6	30.7	5.0	6.9	18.5	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.8	0.0	95.4	115.7	33.5	30.2	92.1	153.1	36.7	112.5	58.4	20.4
LnGrp LOS	E	A	F	F	C	C	F	F	D	F	E	C
Approach Vol, veh/h		710			686			1575			1364	
Approach Delay, s/veh		89.0			57.3			134.6			61.1	
Approach LOS		F			E			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.2	43.5	19.6	41.8	12.6	47.1	18.4	43.0
Change Period (Y+Rc), s	4.6	* 6.5	4.6	5.8	4.6	6.5	4.6	5.8
Max Green Setting (Gmax), s	11.6	* 37	15.0	36.0	8.0	39.5	19.8	31.2
Max Q Clear Time (g_c+I1), s	13.0	39.0	17.0	38.0	8.5	40.3	13.8	14.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.5

Intersection Summary	
HCM 6th Ctrl Delay	91.8
HCM 6th LOS	F

Notes

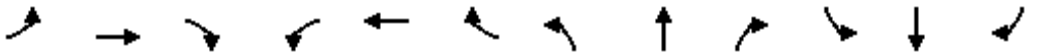
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	98	290	53	82	115	46	1454	234	25	1197	73
Future Volume (vph)	98	290	53	82	115	46	1454	234	25	1197	73
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	28.8	28.8	28.8	33.8	33.8	9.6	24.2	24.2	9.6	31.5	31.5
Total Split (s)	44.0	44.0	44.0	44.0	44.0	12.4	65.0	65.0	11.0	63.6	63.6
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	10.3%	54.2%	54.2%	9.2%	53.0%	53.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	3.6	4.2	4.2	3.6	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8		5.8	4.6	5.2	5.2	4.6	6.5	6.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 108.5
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: Euclid Av. (SR-83) & Chino Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	290	53	82	115	10	46	1454	234	25	1197	73
Future Volume (veh/h)	98	290	53	82	115	10	46	1454	234	25	1197	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	105	312	34	88	124	7	49	1563	181	27	1287	45
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	278	524	444	125	158	8	61	1823	796	41	1781	778
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.04	0.53	0.53	0.03	0.52	0.52
Sat Flow, veh/h	1208	1800	1525	274	544	27	1619	3420	1494	1619	3420	1494
Grp Volume(v), veh/h	105	312	34	219	0	0	49	1563	181	27	1287	45
Grp Sat Flow(s),veh/h/ln	1208	1800	1525	845	0	0	1619	1710	1494	1619	1710	1494
Q Serve(g_s), s	0.0	16.7	1.8	13.4	0.0	0.0	3.4	44.1	7.2	1.9	32.4	1.7
Cycle Q Clear(g_c), s	14.2	16.7	1.8	30.1	0.0	0.0	3.4	44.1	7.2	1.9	32.4	1.7
Prop In Lane	1.00		1.00	0.40		0.03	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	278	524	444	291	0	0	61	1823	796	41	1781	778
V/C Ratio(X)	0.38	0.60	0.08	0.75	0.00	0.00	0.81	0.86	0.23	0.66	0.72	0.06
Avail Cap(c_a), veh/h	337	613	519	360	0	0	113	1823	796	92	1781	778
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.2	34.1	28.8	42.3	0.0	0.0	53.6	22.5	13.9	54.2	20.7	13.3
Incr Delay (d2), s/veh	0.8	1.2	0.1	6.9	0.0	0.0	9.0	5.5	0.7	6.5	2.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	7.2	0.7	6.3	0.0	0.0	1.5	16.6	2.3	0.8	11.9	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.1	35.3	28.9	49.1	0.0	0.0	62.6	28.0	14.6	60.7	23.2	13.4
LnGrp LOS	C	D	C	D	A	A	E	C	B	E	C	B
Approach Vol, veh/h		451			219			1793			1359	
Approach Delay, s/veh		34.5			49.1			27.6			23.7	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	66.3		38.5	8.8	64.9		38.5				
Change Period (Y+Rc), s	4.6	* 6.5		5.8	4.6	6.5		5.8				
Max Green Setting (Gmax), s	6.4	* 60		38.2	7.8	57.1		38.2				
Max Q Clear Time (g_c+I1), s	3.9	46.1		18.7	5.4	34.4		32.1				
Green Ext Time (p_c), s	0.0	8.7		2.0	0.0	9.0		0.6				

Intersection Summary		
HCM 6th Ctrl Delay		28.2
HCM 6th LOS		C

Notes

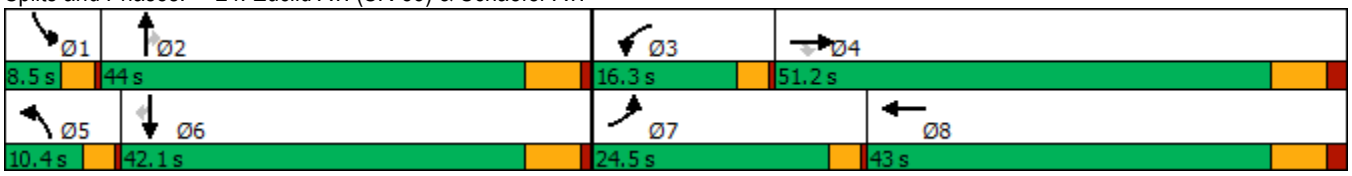
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

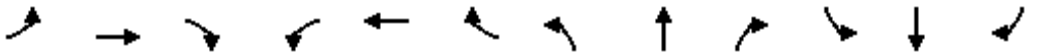
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	297	293	192	80	69	92	1383	84	30	1222	118
Future Volume (vph)	297	293	192	80	69	92	1383	84	30	1222	118
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.5	42.0	42.0	13.5	43.0	8.5	33.0	33.0	8.5	28.0	28.0
Total Split (s)	24.5	51.2	51.2	16.3	43.0	10.4	44.0	44.0	8.5	42.1	42.1
Total Split (%)	20.4%	42.7%	42.7%	13.6%	35.8%	8.7%	36.7%	36.7%	7.1%	35.1%	35.1%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	7.0	7.0	3.5	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 95.8
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Euclid Av. (SR-83) & Schaefer Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	297	293	192	80	69	26	92	1383	84	30	1222	118
Future Volume (veh/h)	297	293	192	80	69	26	92	1383	84	30	1222	118
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	300	296	153	81	70	21	93	1397	67	30	1234	89
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	333	359	304	161	124	37	115	1505	671	48	1363	608
Arrive On Green	0.21	0.20	0.20	0.10	0.09	0.09	0.07	0.44	0.44	0.03	0.40	0.40
Sat Flow, veh/h	1619	1800	1525	1619	1329	399	1619	3420	1525	1619	3420	1525
Grp Volume(v), veh/h	300	296	153	81	0	91	93	1397	67	30	1234	89
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1619	0	1728	1619	1710	1525	1619	1710	1525
Q Serve(g_s), s	15.6	13.6	7.7	4.1	0.0	4.4	4.9	33.4	2.2	1.6	29.3	3.2
Cycle Q Clear(g_c), s	15.6	13.6	7.7	4.1	0.0	4.4	4.9	33.4	2.2	1.6	29.3	3.2
Prop In Lane	1.00		1.00	1.00		0.23	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	333	359	304	161	0	161	115	1505	671	48	1363	608
V/C Ratio(X)	0.90	0.82	0.50	0.50	0.00	0.57	0.81	0.93	0.10	0.62	0.91	0.15
Avail Cap(c_a), veh/h	394	922	781	240	0	721	129	1506	672	94	1430	638
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.4	33.1	30.7	36.9	0.0	37.5	39.5	22.9	14.2	41.4	24.4	16.6
Incr Delay (d2), s/veh	19.4	3.6	1.0	0.9	0.0	2.3	24.5	10.4	0.1	4.8	8.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	5.9	2.7	1.6	0.0	1.8	2.6	13.3	0.7	0.7	11.6	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.8	36.7	31.7	37.8	0.0	39.8	64.0	33.3	14.2	46.2	32.7	16.7
LnGrp LOS	D	D	C	D	A	D	E	C	B	D	C	B
Approach Vol, veh/h		749			172			1557			1353	
Approach Delay, s/veh		42.1			38.8			34.3			32.0	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	44.0	12.1	24.2	9.6	40.4	21.2	15.0
Change Period (Y+Rc), s	3.5	6.0	3.5	7.0	3.5	6.0	3.5	7.0
Max Green Setting (Gmax), s	5.0	38.0	12.8	44.2	6.9	36.1	21.0	36.0
Max Q Clear Time (g_c+I1), s	3.6	35.4	6.1	15.6	6.9	31.3	17.6	6.4
Green Ext Time (p_c), s	0.0	2.0	0.0	1.6	0.0	3.1	0.2	0.3

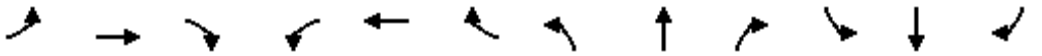
Intersection Summary	
HCM 6th Ctrl Delay	35.2
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	281	505	310	46	303	175	1324	78	92	1300	185
Future Volume (vph)	281	505	310	46	303	175	1324	78	92	1300	185
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	46.0	46.0	46.0	49.0	49.0	8.5	29.0	29.0	8.5	40.0	40.0
Total Split (s)	52.0	52.0	52.0	52.0	52.0	17.0	54.8	54.8	13.2	51.0	51.0
Total Split (%)	43.3%	43.3%	43.3%	43.3%	43.3%	14.2%	45.7%	45.7%	11.0%	42.5%	42.5%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 25: Euclid Av. (SR-83) & Edison Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	281	505	310	46	303	50	175	1324	78	92	1300	185
Future Volume (veh/h)	281	505	310	46	303	50	175	1324	78	92	1300	185
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	296	532	244	48	319	47	184	1394	74	97	1368	163
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	265	675	572	135	574	85	182	1418	631	118	1282	572
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.11	0.41	0.41	0.07	0.38	0.38
Sat Flow, veh/h	975	1800	1525	667	1531	225	1619	3420	1522	1619	3420	1525
Grp Volume(v), veh/h	296	532	244	48	0	366	184	1394	74	97	1368	163
Grp Sat Flow(s),veh/h/ln	975	1800	1525	667	0	1756	1619	1710	1522	1619	1710	1525
Q Serve(g_s), s	25.3	31.5	14.3	8.3	0.0	19.7	13.5	48.3	3.6	7.1	45.0	9.0
Cycle Q Clear(g_c), s	45.0	31.5	14.3	39.7	0.0	19.7	13.5	48.3	3.6	7.1	45.0	9.0
Prop In Lane	1.00		1.00	1.00		0.13	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	265	675	572	135	0	659	182	1418	631	118	1283	572
V/C Ratio(X)	1.12	0.79	0.43	0.36	0.00	0.56	1.01	0.98	0.12	0.82	1.07	0.28
Avail Cap(c_a), veh/h	265	675	572	135	0	659	182	1418	631	131	1283	572
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.2	33.3	27.9	50.9	0.0	29.6	53.3	34.7	21.6	54.9	37.5	26.2
Incr Delay (d2), s/veh	90.2	6.2	0.5	1.6	0.0	1.0	69.4	19.8	0.1	27.6	45.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.5	14.2	5.1	1.4	0.0	8.2	8.8	22.2	1.2	3.7	25.3	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	140.5	39.5	28.4	52.5	0.0	30.6	122.6	54.5	21.7	82.5	82.5	26.5
LnGrp LOS	F	D	C	D	A	C	F	D	C	F	F	C
Approach Vol, veh/h		1072			414			1652			1628	
Approach Delay, s/veh		64.8			33.2			60.7			76.9	
Approach LOS		E			C			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.2	55.8		52.0	17.0	51.0		52.0				
Change Period (Y+Rc), s	3.5	6.0		7.0	3.5	6.0		7.0				
Max Green Setting (Gmax), s	9.7	48.8		45.0	13.5	45.0		45.0				
Max Q Clear Time (g_c+I1), s	9.1	50.3		47.0	15.5	47.0		41.7				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.0		0.7				

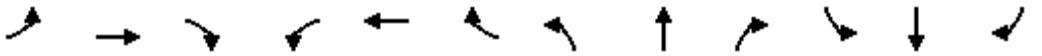
Intersection Summary												
HCM 6th Ctrl Delay			64.8									
HCM 6th LOS			E									

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	39	167	223	8	23	121	1350	18	61	1460	65
Future Volume (vph)	39	167	223	8	23	121	1350	18	61	1460	65
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	46.8	46.8	46.8	46.8	46.8	8.5	30.7	30.7	8.5	37.7	37.7
Total Split (s)	46.8	46.8	46.8	46.8	46.8	14.0	63.2	63.2	10.0	59.2	59.2
Total Split (%)	39.0%	39.0%	39.0%	39.0%	39.0%	11.7%	52.7%	52.7%	8.3%	49.3%	49.3%
Yellow Time (s)	4.3	4.3	4.3	4.3	4.3	3.0	4.7	4.7	3.0	4.7	4.7
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.8	4.8	3.5	5.7	5.7	3.5	5.7	5.7
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 96.9
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 26: Euclid Av. (SR-83) & Eucalyptus Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	167	223	8	23	54	121	1350	18	61	1460	65
Future Volume (veh/h)	39	167	223	8	23	54	121	1350	18	61	1460	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	44	188	135	9	26	58	136	1517	19	69	1640	61
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	213	256	217	136	70	157	167	2132	951	85	1960	856
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.10	0.62	0.62	0.05	0.57	0.57
Sat Flow, veh/h	1261	1800	1525	1014	496	1105	1619	3420	1525	1619	3420	1494
Grp Volume(v), veh/h	44	188	135	9	0	84	136	1517	19	69	1640	61
Grp Sat Flow(s),veh/h/ln	1261	1800	1525	1014	0	1601	1619	1710	1525	1619	1710	1494
Q Serve(g_s), s	2.5	7.7	6.4	0.7	0.0	3.7	6.3	23.1	0.4	3.2	30.3	1.4
Cycle Q Clear(g_c), s	6.2	7.7	6.4	8.4	0.0	3.7	6.3	23.1	0.4	3.2	30.3	1.4
Prop In Lane	1.00		1.00	1.00		0.69	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	213	256	217	136	0	227	167	2132	951	85	1960	856
V/C Ratio(X)	0.21	0.74	0.62	0.07	0.00	0.37	0.82	0.71	0.02	0.81	0.84	0.07
Avail Cap(c_a), veh/h	722	983	833	546	0	874	221	2557	1140	137	2379	1039
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.7	31.6	31.1	35.6	0.0	29.9	33.8	9.8	5.5	36.0	13.5	7.3
Incr Delay (d2), s/veh	0.4	3.1	2.2	0.2	0.0	0.7	14.5	0.8	0.0	13.0	2.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.4	2.3	0.2	0.0	1.4	2.9	5.7	0.1	1.5	8.7	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.0	34.7	33.2	35.8	0.0	30.6	48.3	10.6	5.5	49.1	15.8	7.3
LnGrp LOS	C	C	C	D	A	C	D	B	A	D	B	A
Approach Vol, veh/h		367			93			1672			1770	
Approach Delay, s/veh		33.9			31.1			13.6			16.8	
Approach LOS		C			C			B			B	

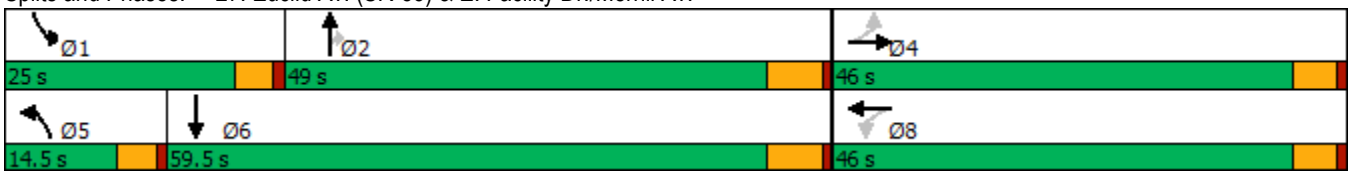
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.5	53.6		15.7	11.4	49.8		15.7				
Change Period (Y+Rc), s	3.5	5.7		4.8	3.5	5.7		4.8				
Max Green Setting (Gmax), s	6.5	57.5		42.0	10.5	53.5		42.0				
Max Q Clear Time (g_c+I1), s	5.2	25.1		9.7	8.3	32.3		10.4				
Green Ext Time (p_c), s	0.0	12.9		1.2	0.0	11.8		0.4				

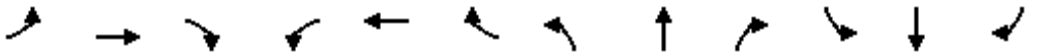
Intersection Summary			
HCM 6th Ctrl Delay		17.4	
HCM 6th LOS		B	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	12	31	256	2	4	1345	264	288	1349
Future Volume (vph)	12	31	256	2	4	1345	264	288	1349
Turn Type	Perm	NA	Perm	NA	Prot	NA	Perm	Prot	NA
Protected Phases		4		8	5	2		1	6
Permitted Phases	4		8				2		
Detector Phase	4	4	8	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	15.0	15.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	10.0	10.0	46.0	46.0	14.5	28.0	28.0	14.5	28.0
Total Split (s)	46.0	46.0	46.0	46.0	14.5	49.0	49.0	25.0	59.5
Total Split (%)	38.3%	38.3%	38.3%	38.3%	12.1%	40.8%	40.8%	20.8%	49.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.5	5.0	5.0	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	4.5	6.0	6.0	4.5	6.0
Lead/Lag					Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 27: Euclid Av. (SR-83) & E. Facility Dr./Merrill Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	31	13	256	2	204	4	1345	264	288	1349	1
Future Volume (veh/h)	12	31	13	256	2	204	4	1345	264	288	1349	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	13	34	13	281	2	214	4	1478	225	316	1482	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	131	328	117	329	2	215	17	1226	547	277	1774	0
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.01	0.36	0.36	0.17	0.52	0.00
Sat Flow, veh/h	276	959	342	827	6	630	1619	3420	1525	1619	3510	0
Grp Volume(v), veh/h	60	0	0	497	0	0	4	1478	225	316	1482	0
Grp Sat Flow(s),veh/h/ln	1577	0	0	1462	0	0	1619	1710	1525	1619	1710	0
Q Serve(g_s), s	0.0	0.0	0.0	37.8	0.0	0.0	0.3	43.0	13.3	20.5	44.2	0.0
Cycle Q Clear(g_c), s	2.8	0.0	0.0	40.7	0.0	0.0	0.3	43.0	13.3	20.5	44.2	0.0
Prop In Lane	0.22		0.22	0.57		0.43	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	575	0	0	546	0	0	17	1226	547	277	1774	0
V/C Ratio(X)	0.10	0.00	0.00	0.91	0.00	0.00	0.24	1.21	0.41	1.14	0.84	0.00
Avail Cap(c_a), veh/h	575	0	0	546	0	0	135	1226	547	277	1774	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.9	0.0	0.0	39.1	0.0	0.0	58.9	38.5	29.0	49.7	24.5	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	18.9	0.0	0.0	2.7	100.6	0.5	98.2	3.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.0	16.5	0.0	0.0	0.1	33.7	4.7	15.4	16.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.0	0.0	0.0	58.0	0.0	0.0	61.6	139.1	29.5	147.9	28.2	0.0
LnGrp LOS	C	A	A	E	A	A	E	F	C	F	C	A
Approach Vol, veh/h		60			497			1707			1798	
Approach Delay, s/veh		27.0			58.0			124.5			49.2	
Approach LOS		C			E			F			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	25.0	49.0		46.0	5.7	68.3		46.0				
Change Period (Y+Rc), s	4.5	6.0		5.0	4.5	6.0		5.0				
Max Green Setting (Gmax), s	20.5	43.0		41.0	10.0	53.5		41.0				
Max Q Clear Time (g_c+I1), s	22.5	45.0		4.8	2.3	46.2		42.7				
Green Ext Time (p_c), s	0.0	0.0		0.2	0.0	4.9		0.0				

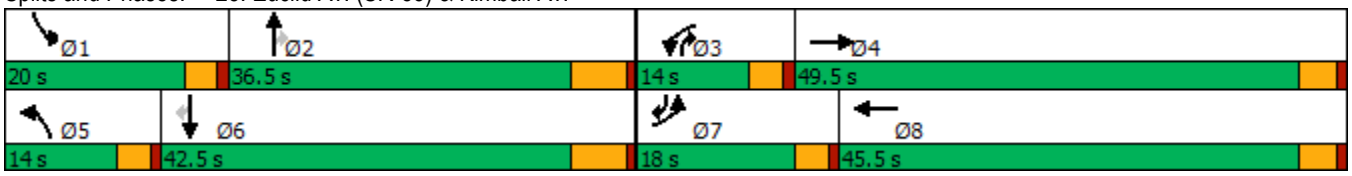
Intersection Summary												
HCM 6th Ctrl Delay			81.6									
HCM 6th LOS			F									

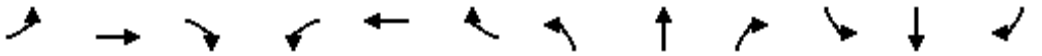
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	370	807	82	352	75	987	49	449	936	248
Future Volume (vph)	370	807	82	352	75	987	49	449	936	248
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	3	8	5	2	3	1	6	7
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	7
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	14.0	49.5	14.0	45.5	14.0	36.0	14.0	9.0	33.0	14.0
Total Split (s)	18.0	49.5	14.0	45.5	14.0	36.5	14.0	20.0	42.5	18.0
Total Split (%)	15.0%	41.3%	11.7%	37.9%	11.7%	30.4%	11.7%	16.7%	35.4%	15.0%
Yellow Time (s)	3.0	3.5	3.0	3.5	3.0	5.0	3.0	3.0	5.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.5	4.0	4.5	4.0	6.0	4.0	4.0	6.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	None	Min	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 108.9
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 28: Euclid Av. (SR-83) & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	370	807	65	82	352	199	75	987	49	449	936	248
Future Volume (veh/h)	370	807	65	82	352	199	75	987	49	449	936	248
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1600	1800	1800	1700	1800	1800	1700	1800	1800	1600	1800	1800
Adj Flow Rate, veh/h	381	832	64	85	363	167	77	1018	36	463	965	158
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	386	988	76	139	600	272	136	974	566	442	1198	733
Arrive On Green	0.13	0.31	0.31	0.09	0.26	0.26	0.08	0.28	0.28	0.15	0.35	0.35
Sat Flow, veh/h	2956	3218	247	1619	2288	1036	1619	3420	1525	2956	3420	1524
Grp Volume(v), veh/h	381	442	454	85	270	260	77	1018	36	463	965	158
Grp Sat Flow(s),veh/h/ln	1478	1710	1755	1619	1710	1614	1619	1710	1525	1478	1710	1524
Q Serve(g_s), s	13.8	25.9	25.9	5.4	14.8	15.2	4.9	30.5	1.6	16.0	27.4	6.4
Cycle Q Clear(g_c), s	13.8	25.9	25.9	5.4	14.8	15.2	4.9	30.5	1.6	16.0	27.4	6.4
Prop In Lane	1.00		0.14	1.00		0.64	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	386	525	539	139	449	423	136	974	566	442	1198	733
V/C Ratio(X)	0.99	0.84	0.84	0.61	0.60	0.61	0.57	1.05	0.06	1.05	0.81	0.22
Avail Cap(c_a), veh/h	386	719	738	151	655	618	151	974	566	442	1198	733
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.4	34.7	34.7	47.2	34.6	34.7	47.2	38.3	21.7	45.5	31.5	16.1
Incr Delay (d2), s/veh	41.8	6.6	6.5	3.9	0.5	0.5	1.7	41.3	0.0	56.0	4.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	11.1	11.4	2.3	6.0	5.8	1.9	17.3	0.6	9.0	11.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.2	41.3	41.1	51.1	35.1	35.3	48.9	79.6	21.8	101.6	35.6	16.2
LnGrp LOS	F	D	D	D	D	D	D	F	C	F	D	B
Approach Vol, veh/h		1277			615			1131			1586	
Approach Delay, s/veh		55.3			37.4			75.7			52.9	
Approach LOS		E			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	36.5	13.2	37.4	13.0	43.5	18.0	32.6
Change Period (Y+Rc), s	4.0	6.0	4.0	4.5	4.0	6.0	4.0	4.5
Max Green Setting (Gmax), s	16.0	30.5	10.0	45.0	10.0	36.5	14.0	41.0
Max Q Clear Time (g_c+I1), s	18.0	32.5	7.4	27.9	6.9	29.4	15.8	17.2
Green Ext Time (p_c), s	0.0	0.0	0.0	4.8	0.0	3.6	0.0	1.8

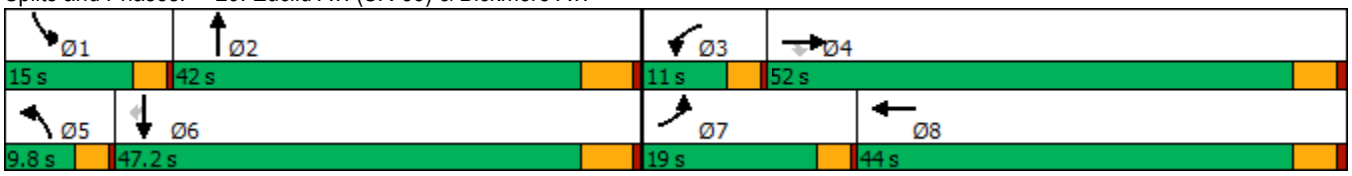
Intersection Summary	
HCM 6th Ctrl Delay	57.1
HCM 6th LOS	E

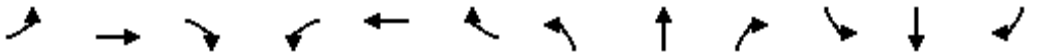
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	205	120	137	52	34	81	709	111	780	203
Future Volume (vph)	205	120	137	52	34	81	709	111	780	203
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.5	44.0	44.0	8.5	44.0	8.5	26.5	8.5	30.5	30.5
Total Split (s)	19.0	52.0	52.0	11.0	44.0	9.8	42.0	15.0	47.2	47.2
Total Split (%)	15.8%	43.3%	43.3%	9.2%	36.7%	8.2%	35.0%	12.5%	39.3%	39.3%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	3.0	4.5	3.0	4.5	4.5
All-Red Time (s)	0.5	1.0	1.0	0.5	1.0	0.5	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.5	3.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 81.7
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 29: Euclid Av. (SR-83) & Bickmore Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	205	120	137	52	34	71	81	709	96	111	780	203
Future Volume (veh/h)	205	120	137	52	34	71	81	709	96	111	780	203
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	223	130	134	57	37	49	88	771	81	121	848	189
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	271	375	317	87	66	88	111	981	103	151	1158	517
Arrive On Green	0.17	0.21	0.21	0.05	0.09	0.09	0.07	0.31	0.31	0.09	0.34	0.34
Sat Flow, veh/h	1619	1800	1525	1619	702	930	1619	3123	328	1619	3420	1525
Grp Volume(v), veh/h	223	130	134	57	0	86	88	422	430	121	848	189
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1619	0	1633	1619	1710	1741	1619	1710	1525
Q Serve(g_s), s	7.0	3.3	4.0	1.8	0.0	2.7	2.8	11.9	11.9	3.9	11.5	4.9
Cycle Q Clear(g_c), s	7.0	3.3	4.0	1.8	0.0	2.7	2.8	11.9	11.9	3.9	11.5	4.9
Prop In Lane	1.00		1.00	1.00		0.57	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	271	375	317	87	0	154	111	537	547	151	1158	517
V/C Ratio(X)	0.82	0.35	0.42	0.66	0.00	0.56	0.79	0.79	0.79	0.80	0.73	0.37
Avail Cap(c_a), veh/h	475	1600	1356	230	0	1204	193	1181	1202	352	2697	1203
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.3	17.9	18.2	24.5	0.0	22.9	24.3	16.5	16.5	23.5	15.4	13.2
Incr Delay (d2), s/veh	2.4	0.2	0.3	3.1	0.0	1.2	4.7	1.0	1.0	3.7	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	1.2	1.2	0.7	0.0	1.0	1.0	3.5	3.6	1.4	3.3	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.7	18.1	18.5	27.7	0.0	24.1	29.0	17.5	17.5	27.2	15.7	13.4
LnGrp LOS	C	B	B	C	A	C	C	B	B	C	B	B
Approach Vol, veh/h		487			143			940			1158	
Approach Delay, s/veh		20.7			25.5			18.6			16.5	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.4	22.1	6.3	16.0	7.1	23.4	12.4	10.0
Change Period (Y+Rc), s	3.5	5.5	3.5	5.0	3.5	5.5	3.5	5.0
Max Green Setting (Gmax), s	11.5	36.5	7.5	47.0	6.3	41.7	15.5	39.0
Max Q Clear Time (g_c+I1), s	5.9	13.9	3.8	6.0	4.8	13.5	9.0	4.7
Green Ext Time (p_c), s	0.1	2.7	0.0	0.6	0.0	3.6	0.2	0.3

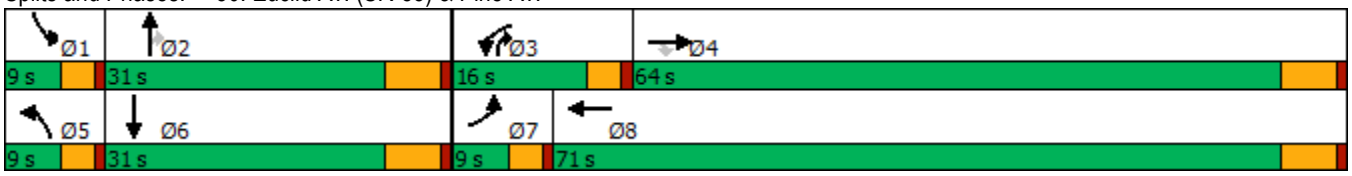
Intersection Summary	
HCM 6th Ctrl Delay	18.5
HCM 6th LOS	B

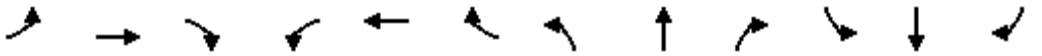
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	5	483	111	581	92	69	780	1172	131	859
Future Volume (vph)	5	483	111	581	92	69	780	1172	131	859
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4		3	8	5	2	3	1	6
Permitted Phases			4					2		
Detector Phase	7	4	4	3	8	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.0	43.0	43.0	9.0	45.0	9.0	11.0	9.0	9.0	29.0
Total Split (s)	9.0	64.0	64.0	16.0	71.0	9.0	31.0	16.0	9.0	31.0
Total Split (%)	7.5%	53.3%	53.3%	13.3%	59.2%	7.5%	25.8%	13.3%	7.5%	25.8%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0	3.0	3.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	4.0	6.0	4.0	4.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 94.8
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 30: Euclid Av. (SR-83) & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	483	111	581	92	75	69	780	1172	131	859	4
Future Volume (veh/h)	5	483	111	581	92	75	69	780	1172	131	859	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1600	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	5	493	0	593	94	75	70	796	779	134	877	4
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	11	586		386	417	332	87	930	614	88	952	4
Arrive On Green	0.01	0.33	0.00	0.13	0.45	0.45	0.05	0.27	0.27	0.05	0.27	0.27
Sat Flow, veh/h	1619	1800	1525	2956	927	740	1619	3420	1525	1619	3491	16
Grp Volume(v), veh/h	5	493	0	593	0	169	70	796	779	134	430	451
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1478	0	1667	1619	1710	1525	1619	1710	1797
Q Serve(g_s), s	0.3	23.4	0.0	12.0	0.0	5.7	3.9	20.3	25.0	5.0	22.4	22.4
Cycle Q Clear(g_c), s	0.3	23.4	0.0	12.0	0.0	5.7	3.9	20.3	25.0	5.0	22.4	22.4
Prop In Lane	1.00		1.00	1.00		0.44	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	11	586		386	0	749	87	930	614	88	466	490
V/C Ratio(X)	0.47	0.84		1.54	0.00	0.23	0.80	0.86	1.27	1.52	0.92	0.92
Avail Cap(c_a), veh/h	88	1136		386	0	1179	88	930	614	88	466	490
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.5	28.8	0.0	39.9	0.0	15.5	43.0	31.7	27.4	43.4	32.5	32.5
Incr Delay (d2), s/veh	11.7	4.7	0.0	254.0	0.0	0.2	37.3	7.5	133.3	283.8	23.3	22.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	10.0	0.0	17.7	0.0	2.0	2.4	8.5	34.5	8.8	11.4	11.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.2	33.5	0.0	293.9	0.0	15.7	80.3	39.3	160.8	327.2	55.7	54.9
LnGrp LOS	E	C		F	A	B	F	D	F	F	E	D
Approach Vol, veh/h		498	A		762			1645			1015	
Approach Delay, s/veh		33.8			232.2			98.5			91.2	
Approach LOS		C			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	31.0	16.0	35.9	8.9	31.1	4.6	47.3
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	5.0	25.0	12.0	58.0	5.0	25.0	5.0	65.0
Max Q Clear Time (g_c+I1), s	7.0	27.0	14.0	25.4	5.9	24.4	2.3	7.7
Green Ext Time (p_c), s	0.0	0.0	0.0	4.5	0.0	0.2	0.0	1.4

Intersection Summary	
HCM 6th Ctrl Delay	114.4
HCM 6th LOS	F

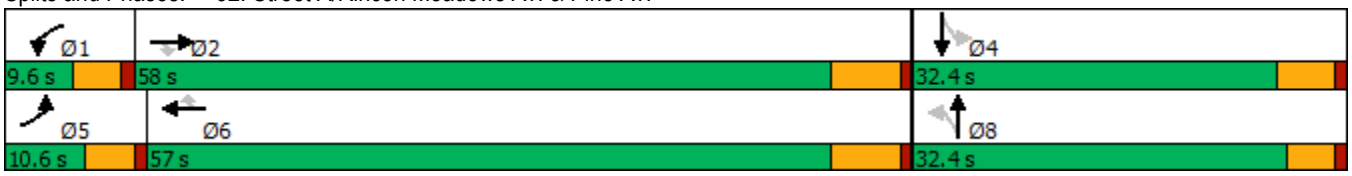
Notes

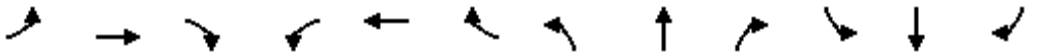
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	20	1713	38	15	717	25	23	3	22	5
Future Volume (vph)	20	1713	38	15	717	25	23	3	22	5
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	NA
Protected Phases	5	2		1	6			8		4
Permitted Phases			2			6	8		4	
Detector Phase	5	2	2	1	6	6	8	8	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.2	28.2	9.6	28.2	28.2	31.6	31.6	32.4	32.4
Total Split (s)	10.6	58.0	58.0	9.6	57.0	57.0	32.4	32.4	32.4	32.4
Total Split (%)	10.6%	58.0%	58.0%	9.6%	57.0%	57.0%	32.4%	32.4%	32.4%	32.4%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	5.2	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	6.2	4.6	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	Max	None	None	None	None	None	None	None

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 79.6
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 32: Street A/Rincon Meadows Av. & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	1713	38	15	717	25	23	3	9	22	5	18
Future Volume (veh/h)	20	1713	38	15	717	25	23	3	9	22	5	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	22	1862	41	16	779	27	25	3	10	24	5	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	39	2273	1014	30	2254	1005	225	40	132	237	34	137
Arrive On Green	0.02	0.66	0.66	0.02	0.66	0.66	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	1619	3420	1525	1619	3420	1525	1408	365	1216	1423	315	1259
Grp Volume(v), veh/h	22	1862	41	16	779	27	25	0	13	24	0	25
Grp Sat Flow(s),veh/h/ln	1619	1710	1525	1619	1710	1525	1408	0	1581	1423	0	1573
Q Serve(g_s), s	1.0	31.2	0.7	0.8	7.8	0.5	1.3	0.0	0.6	1.2	0.0	1.1
Cycle Q Clear(g_c), s	1.0	31.2	0.7	0.8	7.8	0.5	2.4	0.0	0.6	1.8	0.0	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.77	1.00		0.80
Lane Grp Cap(c), veh/h	39	2273	1014	30	2254	1005	225	0	172	237	0	171
V/C Ratio(X)	0.56	0.82	0.04	0.53	0.35	0.03	0.11	0.00	0.08	0.10	0.00	0.15
Avail Cap(c_a), veh/h	125	2273	1014	104	2254	1005	574	0	564	575	0	545
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.6	9.6	4.5	37.9	5.9	4.6	32.5	0.0	31.2	32.0	0.0	31.5
Incr Delay (d2), s/veh	4.5	3.4	0.1	5.1	0.1	0.0	0.2	0.0	0.2	0.2	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	8.2	0.2	0.3	1.8	0.1	0.4	0.0	0.2	0.4	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.2	13.1	4.6	43.0	6.0	4.6	32.8	0.0	31.4	32.2	0.0	31.8
LnGrp LOS	D	B	A	D	A	A	C	A	C	C	A	C
Approach Vol, veh/h		1925			822			38			49	
Approach Delay, s/veh		13.2			6.6			32.3			32.0	
Approach LOS		B			A			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.1	58.0		13.9	6.5	57.6		13.9				
Change Period (Y+Rc), s	4.6	6.2		5.4	4.6	6.2		* 5.4				
Max Green Setting (Gmax), s	5.0	51.8		27.0	6.0	50.8		* 28				
Max Q Clear Time (g_c+I1), s	2.8	33.2		3.8	3.0	9.8		4.4				
Green Ext Time (p_c), s	0.0	12.6		0.1	0.0	5.5		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		11.9
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

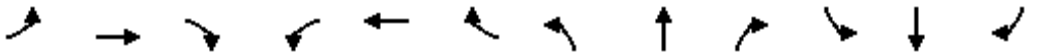
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	41	1662	32	44	656	35	51	29	34	14
Future Volume (vph)	41	1662	32	44	656	35	51	29	34	14
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	NA
Protected Phases	7	4		3	8			2		6
Permitted Phases			4			8	2		6	
Detector Phase	7	4	4	3	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	16.2	9.6	23.2	23.2	15.8	15.8	15.2	15.2
Total Split (s)	14.0	87.0	87.0	12.0	85.0	85.0	21.0	21.0	21.0	21.0
Total Split (%)	11.7%	72.5%	72.5%	10.0%	70.8%	70.8%	17.5%	17.5%	17.5%	17.5%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	5.2	4.8	4.8	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	6.2	5.8	5.8	5.2	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 113.9
Natural Cycle: 75
Control Type: Actuated-Uncoordinated

Splits and Phases: 34: Chino Corona Rd. & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	1662	32	44	656	35	51	29	66	34	14	37
Future Volume (veh/h)	41	1662	32	44	656	35	51	29	66	34	14	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	45	1826	0	48	721	30	56	32	64	37	15	27
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	56	2437		59	1287	1091	169	56	112	123	60	108
Arrive On Green	0.03	0.71	0.00	0.04	0.71	0.71	0.10	0.10	0.10	0.10	0.10	0.10
Sat Flow, veh/h	1619	3420	1525	1619	1800	1525	1309	536	1071	1247	576	1037
Grp Volume(v), veh/h	45	1826	0	48	721	30	56	0	96	37	0	42
Grp Sat Flow(s),veh/h/ln	1619	1710	1525	1619	1800	1525	1309	0	1607	1247	0	1613
Q Serve(g_s), s	3.1	37.3	0.0	3.3	21.6	0.6	4.7	0.0	6.5	3.3	0.0	2.7
Cycle Q Clear(g_c), s	3.1	37.3	0.0	3.3	21.6	0.6	7.4	0.0	6.5	9.8	0.0	2.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.67	1.00		0.64
Lane Grp Cap(c), veh/h	56	2437		59	1287	1091	169	0	168	123	0	168
V/C Ratio(X)	0.81	0.75		0.81	0.56	0.03	0.33	0.00	0.57	0.30	0.00	0.25
Avail Cap(c_a), veh/h	134	2437		106	1287	1091	208	0	215	166	0	225
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	54.4	10.0	0.0	54.2	7.7	4.7	50.1	0.0	48.4	53.0	0.0	46.7
Incr Delay (d2), s/veh	9.9	2.2	0.0	9.2	1.8	0.0	1.1	0.0	3.1	1.4	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	11.1	0.0	1.5	6.9	0.2	1.5	0.0	2.7	1.1	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.3	12.2	0.0	63.4	9.4	4.7	51.2	0.0	51.4	54.4	0.0	47.5
LnGrp LOS	E	B		E	A	A	D	A	D	D	A	D
Approach Vol, veh/h		1871	A		799			152			79	
Approach Delay, s/veh		13.5			12.5			51.4			50.7	
Approach LOS		B			B			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		17.6	8.8	87.0		17.6	8.5	87.3				
Change Period (Y+Rc), s		5.8	4.6	6.2		* 5.8	4.6	6.2				
Max Green Setting (Gmax), s		15.2	7.4	80.8		* 16	9.4	78.8				
Max Q Clear Time (g_c+I1), s		9.4	5.3	39.3		11.8	5.1	23.6				
Green Ext Time (p_c), s		0.3	0.0	19.7		0.1	0.0	5.2				

Intersection Summary												
HCM 6th Ctrl Delay			16.2									
HCM 6th LOS			B									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

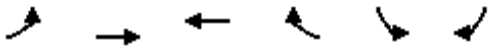
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	27	1735	708	121	27
Future Volume (vph)	27	1735	708	121	27
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	7	4	8	6	
Permitted Phases					6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	14.7	14.7
Total Split (s)	15.0	94.0	79.0	26.0	26.0
Total Split (%)	12.5%	78.3%	65.8%	21.7%	21.7%
Yellow Time (s)	3.6	4.8	4.8	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.7	4.7
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 84.3
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 36: Pine Av. & West Preserve Loop





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	27	1735	708	52	121	27
Future Volume (veh/h)	27	1735	708	52	121	27
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1800	1700	1800
Adj Flow Rate, veh/h	28	1807	738	49	126	24
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	47	2540	2135	142	203	192
Arrive On Green	0.03	0.74	0.66	0.66	0.13	0.13
Sat Flow, veh/h	1619	3510	3345	216	1619	1525
Grp Volume(v), veh/h	28	1807	388	399	126	24
Grp Sat Flow(s),veh/h/ln	1619	1710	1710	1761	1619	1525
Q Serve(g_s), s	1.4	23.0	8.0	8.0	5.9	1.1
Cycle Q Clear(g_c), s	1.4	23.0	8.0	8.0	5.9	1.1
Prop In Lane	1.00			0.12	1.00	1.00
Lane Grp Cap(c), veh/h	47	2540	1121	1155	203	192
V/C Ratio(X)	0.60	0.71	0.35	0.35	0.62	0.13
Avail Cap(c_a), veh/h	211	3788	1572	1619	433	408
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.2	5.6	6.1	6.1	33.0	30.9
Incr Delay (d2), s/veh	11.5	0.5	0.3	0.3	3.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.9	2.0	2.1	2.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	49.7	6.1	6.4	6.4	36.1	31.2
LnGrp LOS	D	A	A	A	D	C
Approach Vol, veh/h		1835	787		150	
Approach Delay, s/veh		6.8	6.4		35.3	
Approach LOS		A	A		D	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	64.9	14.7	6.9	58.0
Change Period (Y+Rc), s	5.8	4.7	4.6	5.8
Max Green Setting (Gmax), s	88.2	21.3	10.4	73.2
Max Q Clear Time (g_c+I1), s	25.0	7.9	3.4	10.0
Green Ext Time (p_c), s	34.2	0.3	0.0	7.7

Intersection Summary	
HCM 6th Ctrl Delay	8.2
HCM 6th LOS	A

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1804	52	18	740	21	14
Future Volume (vph)	1804	52	18	740	21	14
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	35.8	35.8	9.6	15.8	10.1	10.1
Total Split (s)	94.0	94.0	13.0	107.0	13.0	13.0
Total Split (%)	78.3%	78.3%	10.8%	89.2%	10.8%	10.8%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.1	4.1
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.1	5.1
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 88
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 39: East Preserve Loop & Pine Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1804	52	18	740	21	14
Future Volume (veh/h)	1804	52	18	740	21	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1800	1800	1700	1800	1600	1800
Adj Flow Rate, veh/h	1879	54	19	771	22	6
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	2485	1108	34	2726	252	130
Arrive On Green	0.73	0.73	0.02	0.80	0.09	0.09
Sat Flow, veh/h	3510	1525	1619	3510	2956	1525
Grp Volume(v), veh/h	1879	54	19	771	22	6
Grp Sat Flow(s),veh/h/ln	1710	1525	1619	1710	1478	1525
Q Serve(g_s), s	30.9	0.9	1.1	5.5	0.6	0.3
Cycle Q Clear(g_c), s	30.9	0.9	1.1	5.5	0.6	0.3
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2485	1108	34	2726	252	130
V/C Ratio(X)	0.76	0.05	0.56	0.28	0.09	0.05
Avail Cap(c_a), veh/h	3255	1452	147	3735	252	130
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.7	3.6	44.9	2.5	39.1	38.9
Incr Delay (d2), s/veh	0.9	0.0	5.3	0.1	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	0.2	0.5	0.7	0.3	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.6	3.6	50.3	2.5	39.7	39.6
LnGrp LOS	A	A	D	A	D	D
Approach Vol, veh/h	1933			790	28	
Approach Delay, s/veh	8.5			3.7	39.7	
Approach LOS	A			A	D	

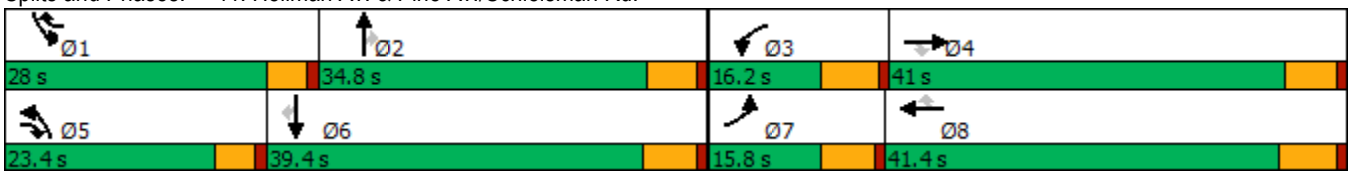
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		13.0	6.5	73.1		79.7
Change Period (Y+Rc), s		5.1	4.6	5.8		5.8
Max Green Setting (Gmax), s		7.9	8.4	88.2		101.2
Max Q Clear Time (g_c+I1), s		2.6	3.1	32.9		7.5
Green Ext Time (p_c), s		0.0	0.0	34.4		8.4

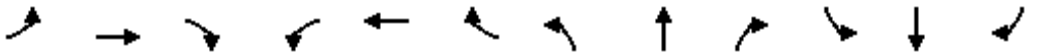
Intersection Summary	
HCM 6th Ctrl Delay	7.4
HCM 6th LOS	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	1298	456	44	592	151	161	138	62	418	327	39
Future Volume (vph)	25	1298	456	44	592	151	161	138	62	418	327	39
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	5	3	8	1	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	34.8	9.6	16.2	35.2	9.6	9.6	32.4	32.4	9.6	32.8	32.8
Total Split (s)	15.8	41.0	23.4	16.2	41.4	28.0	23.4	34.8	34.8	28.0	39.4	39.4
Total Split (%)	13.2%	34.2%	19.5%	13.5%	34.5%	23.3%	19.5%	29.0%	29.0%	23.3%	32.8%	32.8%
Yellow Time (s)	4.8	4.8	3.6	5.2	5.2	3.6	3.6	4.4	4.4	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	6.2	6.2	4.6	4.6	5.4	5.4	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 113.7
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 41: Hellman Av. & Pine Av./Schleisman Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	1298	456	44	592	151	161	138	62	418	327	39
Future Volume (veh/h)	25	1298	456	44	592	151	161	138	62	418	327	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1600	1800	1800	1600	1800	1800	1600	1800	1800	1600	1800	1800
Adj Flow Rate, veh/h	27	1381	296	47	630	100	171	147	39	445	348	22
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	253	1474	572	253	1491	719	222	860	384	496	1177	525
Arrive On Green	0.09	0.30	0.30	0.09	0.30	0.30	0.08	0.25	0.25	0.17	0.34	0.34
Sat Flow, veh/h	2956	4914	1525	2956	4914	1525	2956	3420	1525	2956	3420	1525
Grp Volume(v), veh/h	27	1381	296	47	630	100	171	147	39	445	348	22
Grp Sat Flow(s),veh/h/ln	1478	1638	1525	1478	1638	1525	1478	1710	1525	1478	1710	1525
Q Serve(g_s), s	1.0	32.0	17.6	1.7	12.0	4.3	6.6	3.9	2.3	17.2	8.7	1.1
Cycle Q Clear(g_c), s	1.0	32.0	17.6	1.7	12.0	4.3	6.6	3.9	2.3	17.2	8.7	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	253	1474	572	253	1491	719	222	860	384	496	1177	525
V/C Ratio(X)	0.11	0.94	0.52	0.19	0.42	0.14	0.77	0.17	0.10	0.90	0.30	0.04
Avail Cap(c_a), veh/h	253	1480	574	253	1491	719	476	860	384	592	1177	525
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.3	39.8	28.3	49.7	32.5	17.5	53.0	34.2	33.6	47.6	28.0	25.5
Incr Delay (d2), s/veh	0.3	11.7	1.1	0.5	0.3	0.1	2.1	0.4	0.5	13.3	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	13.7	6.2	0.6	4.6	1.5	2.4	1.6	0.9	7.0	3.5	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.6	51.5	29.4	50.2	32.8	17.6	55.2	34.6	34.1	61.0	28.6	25.6
LnGrp LOS	D	D	C	D	C	B	E	C	C	E	C	C
Approach Vol, veh/h		1704			777			357			815	
Approach Delay, s/veh		47.6			31.9			44.4			46.2	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.2	35.2	16.2	41.3	13.4	46.0	15.8	41.7
Change Period (Y+Rc), s	4.6	* 5.8	6.2	* 6.2	4.6	5.8	5.8	6.2
Max Green Setting (Gmax), s	23.4	* 29	10.0	* 35	18.8	33.6	10.0	35.2
Max Q Clear Time (g_c+I1), s	19.2	5.9	3.7	34.0	8.6	10.7	3.0	14.0
Green Ext Time (p_c), s	0.4	1.2	0.1	1.1	0.2	2.9	0.0	5.8

Intersection Summary	
HCM 6th Ctrl Delay	43.7
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	432	274	576	426	639	937
Future Volume (vph)	432	274	576	426	639	937
Turn Type	Prot	pm+ov	NA	pm+ov	Prot	NA
Protected Phases	8	1	2	8	1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	36.3	11.0	46.3	36.3	11.0	11.0
Total Split (s)	36.3	37.0	46.7	36.3	37.0	83.7
Total Split (%)	30.3%	30.8%	38.9%	30.3%	30.8%	69.8%
Yellow Time (s)	4.3	4.0	4.3	4.3	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.0	5.3	5.3	5.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 116.5
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 42: Archibald Av. & Limonite Av.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	432	274	576	426	639	937
Future Volume (veh/h)	432	274	576	426	639	937
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	441	230	588	414	652	956
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	466	855	637	943	495	1239
Arrive On Green	0.26	0.26	0.34	0.34	0.27	0.65
Sat Flow, veh/h	1810	1610	1900	1576	1810	1900
Grp Volume(v), veh/h	441	230	588	414	652	956
Grp Sat Flow(s),veh/h/ln	1810	1610	1900	1576	1810	1900
Q Serve(g_s), s	28.0	9.1	34.8	17.0	32.0	41.2
Cycle Q Clear(g_c), s	28.0	9.1	34.8	17.0	32.0	41.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	466	855	637	943	495	1239
V/C Ratio(X)	0.95	0.27	0.92	0.44	1.32	0.77
Avail Cap(c_a), veh/h	480	868	673	973	495	1279
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	15.0	37.4	13.1	42.5	14.3
Incr Delay (d2), s/veh	27.3	0.1	18.1	0.4	156.1	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.4	0.0	18.3	10.1	34.8	14.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	69.9	15.1	55.4	13.5	198.6	16.8
LnGrp LOS	E	B	E	B	F	B
Approach Vol, veh/h	671		1002			1608
Approach Delay, s/veh	51.1		38.1			90.5
Approach LOS	D		D			F

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	37.0	44.5			81.5	35.4
Change Period (Y+Rc), s	5.0	5.3			* 5.3	5.3
Max Green Setting (Gmax), s	32.0	41.4			* 79	31.0
Max Q Clear Time (g_c+I1), s	34.0	36.8			43.2	30.0
Green Ext Time (p_c), s	0.0	2.4			4.1	0.1

Intersection Summary	
HCM 6th Ctrl Delay	66.5
HCM 6th LOS	E

Notes

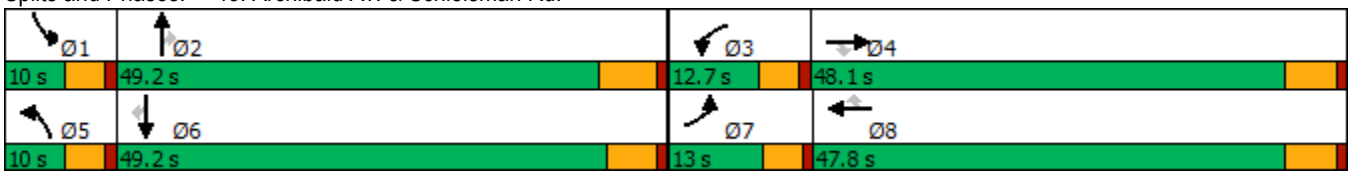
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

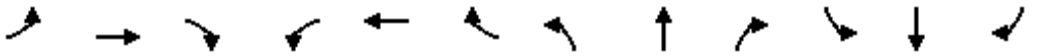
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	478	1067	207	114	343	61	211	637	115	174	700	405
Future Volume (vph)	478	1067	207	114	343	61	211	637	115	174	700	405
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	47.8	47.8	9.6	47.8	47.8	9.6	48.2	48.2	9.6	47.4	47.4
Total Split (s)	13.0	48.1	48.1	12.7	47.8	47.8	10.0	49.2	49.2	10.0	49.2	49.2
Total Split (%)	10.8%	40.1%	40.1%	10.6%	39.8%	39.8%	8.3%	41.0%	41.0%	8.3%	41.0%	41.0%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	5.2	5.2	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	6.2	6.2	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 101.2
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 43: Archibald Av. & Schleisman Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	478	1067	207	114	343	61	211	637	115	174	700	405
Future Volume (veh/h)	478	1067	207	114	343	61	211	637	115	174	700	405
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	488	1089	129	116	350	36	215	650	80	178	714	299
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	286	2277	707	177	2115	656	184	1309	406	184	1309	405
Arrive On Green	0.08	0.44	0.44	0.05	0.41	0.41	0.05	0.25	0.25	0.05	0.25	0.25
Sat Flow, veh/h	3510	5187	1610	3510	5187	1608	3510	5187	1610	3510	5187	1604
Grp Volume(v), veh/h	488	1089	129	116	350	36	215	650	80	178	714	299
Grp Sat Flow(s),veh/h/ln	1755	1729	1610	1755	1729	1608	1755	1729	1610	1755	1729	1604
Q Serve(g_s), s	8.4	15.4	5.0	3.3	4.4	1.4	5.4	11.0	4.0	5.2	12.3	17.6
Cycle Q Clear(g_c), s	8.4	15.4	5.0	3.3	4.4	1.4	5.4	11.0	4.0	5.2	12.3	17.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	286	2277	707	177	2115	656	184	1309	406	184	1309	405
V/C Ratio(X)	1.70	0.48	0.18	0.66	0.17	0.05	1.17	0.50	0.20	0.97	0.55	0.74
Avail Cap(c_a), veh/h	286	2277	707	276	2115	656	184	2166	672	184	2206	682
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.3	20.5	17.6	48.0	19.4	18.5	48.8	32.9	30.3	48.7	33.4	35.4
Incr Delay (d2), s/veh	331.5	0.7	0.6	1.5	0.2	0.2	118.9	0.3	0.2	56.2	0.4	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.7	5.9	1.9	1.5	1.7	0.5	5.3	4.4	1.5	3.6	4.9	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	378.8	21.2	18.2	49.6	19.5	18.6	167.6	33.2	30.5	104.9	33.7	38.0
LnGrp LOS	F	C	B	D	B	B	F	C	C	F	C	D
Approach Vol, veh/h		1706			502			945			1191	
Approach Delay, s/veh		123.3			26.4			63.6			45.5	
Approach LOS		F			C			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	32.2	9.8	51.0	10.0	32.2	13.0	47.8
Change Period (Y+Rc), s	4.6	6.2	4.6	5.8	4.6	* 6.2	4.6	5.8
Max Green Setting (Gmax), s	5.4	43.0	8.1	42.3	5.4	* 44	8.4	42.0
Max Q Clear Time (g_c+I1), s	7.2	13.0	5.3	17.4	7.4	19.6	10.4	6.4
Green Ext Time (p_c), s	0.0	4.5	0.0	8.2	0.0	5.6	0.0	2.4

Intersection Summary	
HCM 6th Ctrl Delay	77.8
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 7.3:

OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

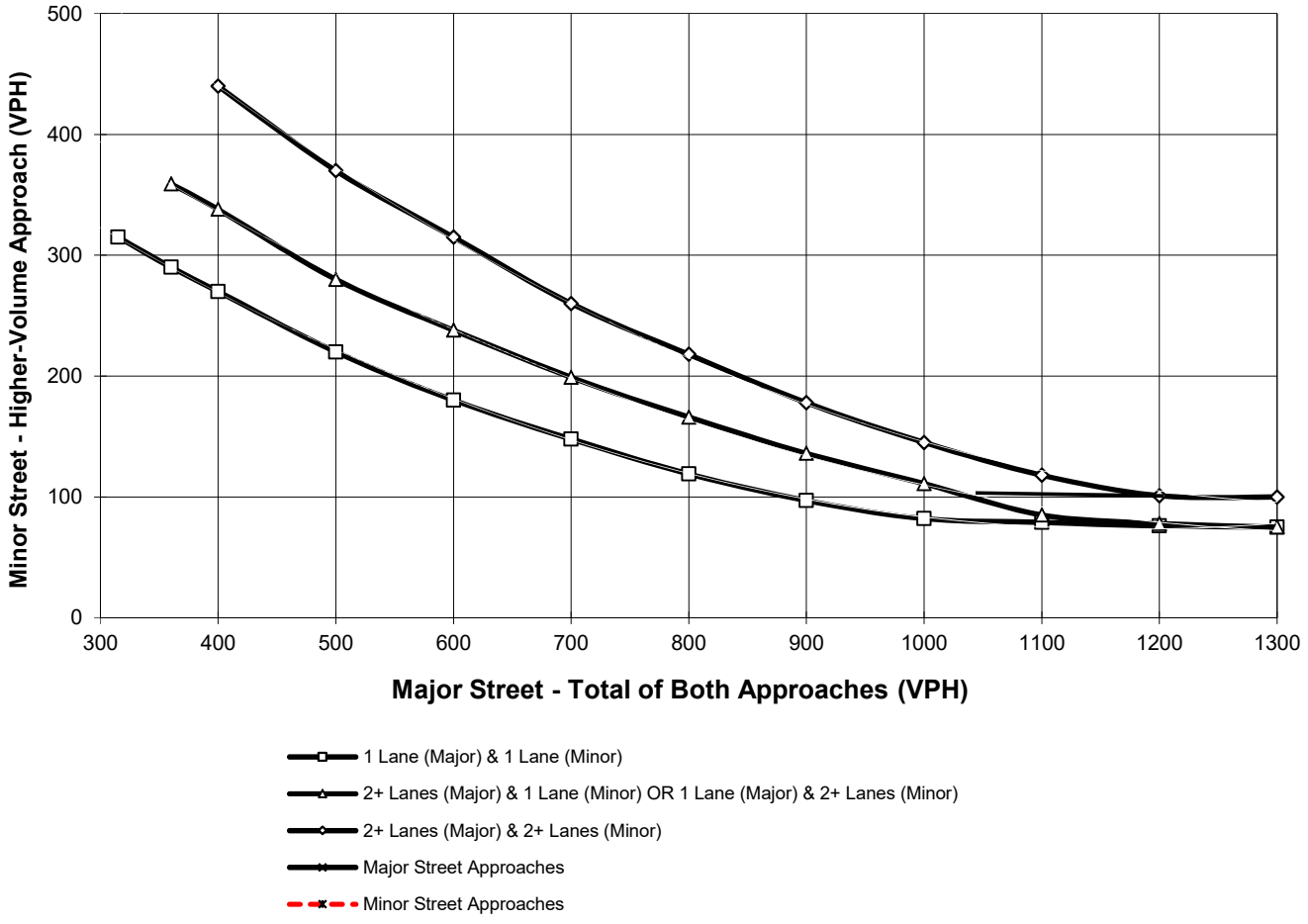
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Opening Year Cumulative (2022) Without Project Conditions - Weekday AM Peak Hou**

Major Street Name = **Bickmore Av** — Total of Both Approaches (VPH) = **61**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Mountain Av** — High Volume Approach (VPH) = **246**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM				
				TRAFFIC CONDITIONS		**OYC (2022) NP**	
				CALC	LC	DATE	04/03/19
Jurisdiction:	**City of Chino**			CHK	CH	DATE	04/03/19
Major Street:	**Pine Av**			Critical Approach Speed (Major)		50	mph
Minor Street:	**Rincon Meadows Av**			Critical Approach Speed (Minor)		25	mph

Major Street Approach Lanes = **2** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **31,095** vpd Minor Street Future ADT = **988** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ..... [√]

or

In built up area of isolated community of < 10,000 population ..... [ ]

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1	*1*	8,000	5,600	2,400	1,680
2 + **31,095**	*1* **988**	9,600	6,720 *	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1	*1*	12,000	8,400	1,200	850
2 + **31,095**	*1* **988**	14,400	10,080 *	1,200	850 *
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more	**A** 59% **B** 100%	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

APPENDIX 7.4:

OPENING YEAR CUMULATIVE (2022) WITH PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

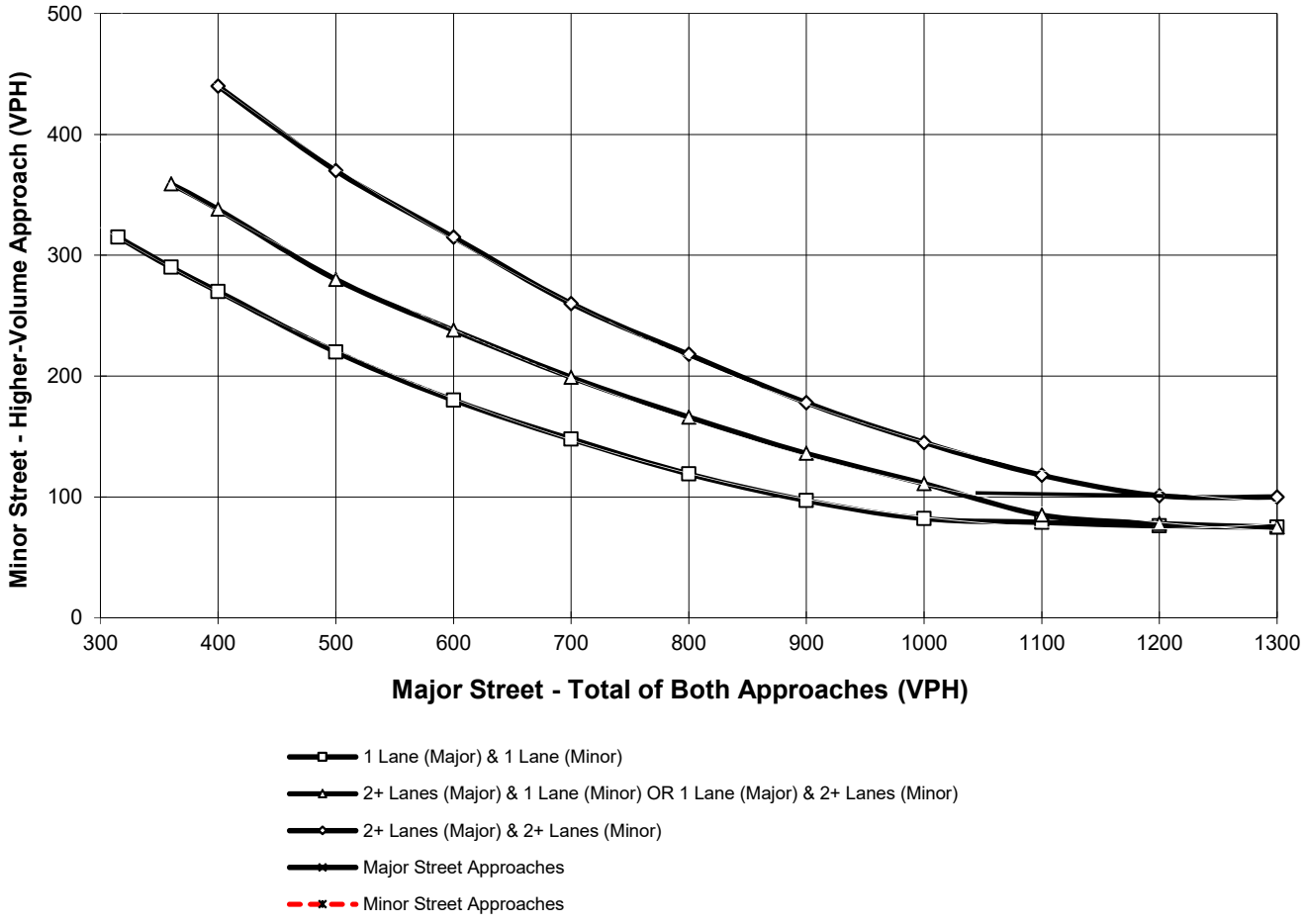
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Opening Year Cumulative (2022) With Project Conditions - Weekday AM Peak Hour**

Major Street Name = **Bickmore Av** — Total of Both Approaches (VPH) = **167**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Mountain Av** — High Volume Approach (VPH) = **319**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	OYC (2022) WP
				CALC LC	DATE 04/03/19
Jurisdiction: City of Chino				CHK CH	DATE 04/03/19
Major Street: Mountain Av				Critical Approach Speed (Major)	45 mph
Minor Street: Driveway 1				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **3,756** vpd Minor Street Future ADT = **362** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
CONDITION A - Minimum Vehicular Volume	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: XX / XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach: Major Street / Minor Street				
1 **3,756** / *1* **362**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach: Major Street / Minor Street				
1 **3,756** / *1* **362**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied: XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 22% B: 43%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	OYC (2022) WP
				CALC LC	DATE 04/03/19
Jurisdiction: City of Chino				CHK CH	DATE 04/03/19
Major Street: Mountain Av				Critical Approach Speed (Major)	45 mph
Minor Street: Driveway 2				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **2,609** vpd Minor Street Future ADT = **1,353** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches)		Minimum Requirements EADT: Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
CONDITION A - Minimum Vehicular Volume				
Satisfied / Not Satisfied XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **2,609** / *1* **1,353**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic				
Satisfied / Not Satisfied XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **2,609** / *1* **1,353**	12,000	8,400	1,200	850 *
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A 47% B 31%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	OYC (2022) WP
				CALC LC	DATE 04/03/19
Jurisdiction: City of Chino				CHK CH	DATE 04/03/19
Major Street: Mountain Av				Critical Approach Speed (Major)	45 mph
Minor Street: Driveway 3				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **1,917** vpd Minor Street Future ADT = **481** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **1,917**	*1* **481**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **1,917**	*1* **481**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	A 29% B 23%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	OYC (2022) WP
				CALC LC	DATE 04/03/19
Jurisdiction: City of Chino				CHK CH	DATE 04/03/19
Major Street: Bickmore Av				Critical Approach Speed (Major)	40 mph
Minor Street: Driveway 4				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **2,212** vpd Minor Street Future ADT = **452** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …… [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
XX					
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **2,212**	*1* **452**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **2,212**	*1* **452**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more …..	A 19% B 18%	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	OYC (2022) WP
				CALC LC	DATE 04/03/19
Jurisdiction: City of Chino				CHK CH	DATE 04/03/19
Major Street: Bickmore Av				Critical Approach Speed (Major)	40 mph
Minor Street: Driveway 5				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **2,769** vpd Minor Street Future ADT = **105** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …… [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
XX	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
CONDITION A - Minimum Vehicular Volume	Urban	Rural	Urban	Rural
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach				
Major Street: *1* **2,769** / Minor Street: *1* **105**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach				
Major Street: *1* **2,769** / Minor Street: *1* **105**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied: XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 4% B: 9%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM		TRAFFIC CONDITIONS		OYC (2022) WP
				CALC	LC	DATE	04/03/19
Jurisdiction:	City of Chino			CHK	CH	DATE	04/03/19
Major Street:	Bickmore Av				Critical Approach Speed (Major)		40 mph
Minor Street:	Driveway 6				Critical Approach Speed (Minor)		25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **2,979** vpd Minor Street Future ADT = **105** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …… [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
XX					
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **2,979**	*1* **105**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **2,979**	*1* **105**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
	XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	**A** 4% **B** 9%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	OYC (2022) WP
				CALC LC	DATE 04/03/19
Jurisdiction: City of Chino				CHK CH	DATE 04/03/19
Major Street: Pine Av				Critical Approach Speed (Major)	50 mph
Minor Street: Rincon Meadows Av				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **2** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **32,209** vpd Minor Street Future ADT = **988** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1	*1*	8,000	5,600	2,400	1,680
2 + **32,209**	*1* **988**	9,600	6,720 *	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
XX					
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1	*1*	12,000	8,400	1,200	850
2 + **32,209**	*1* **988**	14,400	10,080 *	1,200	850 *
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more …..	A 59% B 100%	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

APPENDIX 7.5:

OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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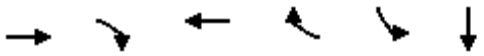
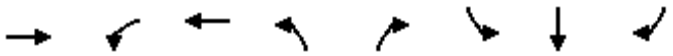


Lane Group	EBT	EBR	WBT	WBR	SBL	SBT
Lane Group Flow (vph)	1702	115	836	227	515	465
v/c Ratio	0.76	0.15	0.37	0.17	0.80	0.73
Control Delay	18.3	3.6	13.1	2.5	27.2	21.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.3	3.6	13.1	2.5	27.2	21.5
Queue Length 50th (ft)	203	0	80	0	171	127
Queue Length 95th (ft)	259	25	109	18	273	221
Internal Link Dist (ft)	970		693			1282
Turn Bay Length (ft)		175				
Base Capacity (vph)	2238	745	2238	1321	768	740
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.15	0.37	0.17	0.67	0.63

Intersection Summary



Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	784	210	305	20	311	357	358	43
v/c Ratio	0.93	0.65	0.18	0.12	0.93	0.73	0.73	0.08
Control Delay	48.7	43.7	18.1	36.5	51.7	34.4	34.2	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.7	43.7	18.1	36.5	51.7	34.4	34.2	0.3
Queue Length 50th (ft)	200	99	52	10	52	166	166	0
Queue Length 95th (ft)	#310	#261	88	30	#211	233	233	0
Internal Link Dist (ft)	980		1139				1358	
Turn Bay Length (ft)		200				1000		255
Base Capacity (vph)	857	323	1698	160	333	640	645	693
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.65	0.18	0.13	0.93	0.56	0.56	0.06

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBT	WBR	NBL	NBT
Lane Group Flow (vph)	1360	941	985	1201	70	481
v/c Ratio	0.57	0.77	0.42	0.90	0.11	0.82
Control Delay	15.3	6.8	13.6	14.7	12.1	28.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.3	6.8	13.6	14.7	12.1	28.0
Queue Length 50th (ft)	141	0	93	25	18	156
Queue Length 95th (ft)	205	62	140	#361	35	227
Internal Link Dist (ft)	693		840			1223
Turn Bay Length (ft)						
Base Capacity (vph)	2370	1229	2370	1330	778	722
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.77	0.42	0.90	0.09	0.67

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	759	326	852	1100	48	791
v/c Ratio	0.72	0.53	1.06	0.39	0.11	1.05
Control Delay	27.1	9.6	75.0	3.1	34.8	57.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.1	9.6	75.0	3.1	34.8	57.3
Queue Length 50th (ft)	166	51	~477	64	11	~129
Queue Length 95th (ft)	m192	m84	#693	53	28	#355
Internal Link Dist (ft)	1139			2865	1665	
Turn Bay Length (ft)		100	300			420
Base Capacity (vph)	1263	701	800	3023	421	753
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.47	1.06	0.36	0.11	1.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	408	398	364	428	1022	1076	530
v/c Ratio	0.87	0.88	0.73	0.93	0.46	0.98	0.62
Control Delay	51.2	51.8	29.8	40.8	19.0	56.1	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.6	0.0	0.0
Total Delay	51.2	51.8	29.8	40.8	19.7	56.1	6.1
Queue Length 50th (ft)	223	218	134	222	288	~367	0
Queue Length 95th (ft)	#375	#384	241	m#313	m346	#493	80
Internal Link Dist (ft)		1410			440	1540	
Turn Bay Length (ft)	400		400	285			
Base Capacity (vph)	514	494	535	475	2203	1100	860
Starvation Cap Reductn	0	0	0	0	743	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.81	0.68	0.90	0.70	0.98	0.62

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

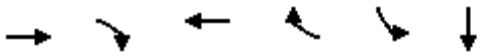
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	406	461	984	751	405	1355
v/c Ratio	0.85	0.98	0.86	0.81	0.92	0.62
Control Delay	49.6	67.6	38.7	13.7	52.5	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.7
Total Delay	49.6	67.6	38.7	13.7	52.5	6.3
Queue Length 50th (ft)	229	246	279	52	183	72
Queue Length 95th (ft)	#396	#457	#394	#259	m205	m100
Internal Link Dist (ft)		1071	1060			440
Turn Bay Length (ft)	900					
Base Capacity (vph)	476	470	1141	924	461	2186
Starvation Cap Reductn	0	0	0	0	0	453
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.98	0.86	0.81	0.88	0.78

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

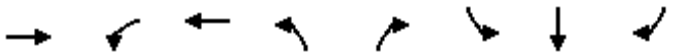


Lane Group	EBT	EBR	WBT	WBR	SBL	SBT
Lane Group Flow (vph)	1111	78	908	314	922	1048
v/c Ratio	0.81	0.17	0.66	0.33	0.97	1.18
Control Delay	28.2	6.3	24.1	3.7	38.5	112.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.2	6.3	24.1	3.7	38.5	112.2
Queue Length 50th (ft)	150	0	117	0	332	~534
Queue Length 95th (ft)	197	27	157	28	#613	#767
Internal Link Dist (ft)	970		693			1282
Turn Bay Length (ft)		175				
Base Capacity (vph)	1372	472	1372	964	955	886
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.17	0.66	0.33	0.97	1.18

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	1005	133	291	19	163	394	395	74
v/c Ratio	0.96	0.57	0.17	0.17	0.68	0.75	0.75	0.12
Control Delay	50.7	44.9	24.1	39.0	24.4	33.9	33.4	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.7	44.9	24.1	39.0	24.4	33.9	33.4	0.6
Queue Length 50th (ft)	~270	67	64	9	7	182	182	0
Queue Length 95th (ft)	#404	m#181	103	30	#86	256	255	3
Internal Link Dist (ft)	980		1139				1358	
Turn Bay Length (ft)		200				1000		255
Base Capacity (vph)	1042	232	1713	115	241	662	670	711
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.57	0.17	0.17	0.68	0.60	0.59	0.10

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	WBT	WBR	NBL	NBT
Lane Group Flow (vph)	1581	467	1015	768	141	398
v/c Ratio	0.58	0.44	0.37	0.63	0.28	0.82
Control Delay	12.1	2.6	10.0	3.7	18.2	33.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.1	2.6	10.0	3.7	18.2	33.7
Queue Length 50th (ft)	150	0	83	0	43	130
Queue Length 95th (ft)	205	42	118	51	81	#252
Internal Link Dist (ft)	693		840			1223
Turn Bay Length (ft)						
Base Capacity (vph)	2746	1055	2746	1216	585	557
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.44	0.37	0.63	0.24	0.71

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	1028	185	452	1285	157	1220
v/c Ratio	0.81	0.29	1.38	0.62	0.14	1.58
Control Delay	24.3	7.3	219.6	12.5	20.5	284.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.3	7.3	219.6	12.5	20.5	284.9
Queue Length 50th (ft)	206	17	~305	194	28	~761
Queue Length 95th (ft)	m246	m25	#452	225	49	#941
Internal Link Dist (ft)	1139			2865	1665	
Turn Bay Length (ft)		100	300			420
Base Capacity (vph)	1376	692	327	2188	1136	774
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.27	1.38	0.59	0.14	1.58

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	385	379	350	358	1152	1077	523
v/c Ratio	0.82	0.84	0.74	0.89	0.52	0.88	0.59
Control Delay	45.2	46.3	31.5	40.9	22.7	40.4	5.4
Queue Delay	0.0	0.0	0.0	0.0	1.5	0.0	0.0
Total Delay	45.2	46.3	31.5	40.9	24.3	40.4	5.4
Queue Length 50th (ft)	209	207	140	181	358	~328	0
Queue Length 95th (ft)	308	315	236	m#262	m434	#468	75
Internal Link Dist (ft)		1410			404	1540	
Turn Bay Length (ft)				285			400
Base Capacity (vph)	552	528	545	410	2202	1217	891
Starvation Cap Reductn	0	0	0	0	809	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.72	0.64	0.87	0.83	0.88	0.59

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	390	442	1047	638	391	1327
v/c Ratio	0.86	0.97	0.87	0.68	0.90	0.59
Control Delay	51.7	65.3	38.1	6.8	53.0	5.0
Queue Delay	10.4	31.6	0.0	0.0	0.0	0.6
Total Delay	62.1	96.9	38.1	6.8	53.0	5.6
Queue Length 50th (ft)	222	229	299	7	172	59
Queue Length 95th (ft)	#386	#433	#424	99	m#245	m103
Internal Link Dist (ft)		1071	1124			404
Turn Bay Length (ft)	900					
Base Capacity (vph)	457	459	1205	938	461	2233
Starvation Cap Reductn	0	0	0	0	0	485
Spillback Cap Reductn	51	48	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.96	1.08	0.87	0.68	0.85	0.76

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

APPENDIX 7.6:

OPENING YEAR CUMULATIVE (2022) WITH PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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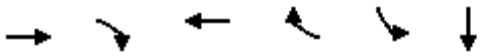
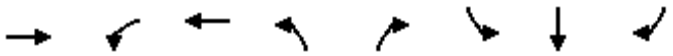


Lane Group	EBT	EBR	WBT	WBR	SBL	SBT
Lane Group Flow (vph)	1710	115	839	227	540	500
v/c Ratio	0.77	0.16	0.38	0.17	0.82	0.77
Control Delay	18.9	3.6	13.4	2.5	28.7	23.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.9	3.6	13.4	2.5	28.7	23.4
Queue Length 50th (ft)	212	0	83	0	183	143
Queue Length 95th (ft)	260	25	109	18	#297	246
Internal Link Dist (ft)	970		693			1282
Turn Bay Length (ft)		175				
Base Capacity (vph)	2210	737	2210	1307	758	736
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.16	0.38	0.17	0.71	0.68

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	786	210	305	20	311	357	358	43
v/c Ratio	0.93	0.65	0.18	0.13	0.94	0.73	0.73	0.08
Control Delay	48.9	43.7	18.2	36.6	52.2	34.4	34.1	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.9	43.7	18.2	36.6	52.2	34.4	34.1	0.3
Queue Length 50th (ft)	201	99	52	10	52	166	166	0
Queue Length 95th (ft)	#311	#261	88	30	#211	233	233	0
Internal Link Dist (ft)	980		1139				1358	
Turn Bay Length (ft)		200				1000		255
Base Capacity (vph)	857	323	1699	159	332	640	645	693
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.65	0.18	0.13	0.94	0.56	0.56	0.06

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBT	WBR	NBL	NBT
Lane Group Flow (vph)	1428	941	988	1219	70	481
v/c Ratio	0.60	0.77	0.42	0.92	0.11	0.82
Control Delay	15.7	6.8	13.6	16.2	12.1	28.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.7	6.8	13.6	16.2	12.1	28.0
Queue Length 50th (ft)	151	0	93	29	18	156
Queue Length 95th (ft)	219	62	140	#377	35	227
Internal Link Dist (ft)	693		840			1223
Turn Bay Length (ft)						
Base Capacity (vph)	2370	1229	2370	1330	778	722
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.77	0.42	0.92	0.09	0.67

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	761	326	852	1115	48	839
v/c Ratio	0.72	0.53	1.06	0.40	0.11	1.11
Control Delay	26.9	9.5	75.0	3.1	34.8	80.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.9	9.5	75.0	3.1	34.8	80.8
Queue Length 50th (ft)	165	51	~477	65	11	~181
Queue Length 95th (ft)	m193	m84	#693	54	28	#412
Internal Link Dist (ft)	1139			2865	1665	
Turn Bay Length (ft)		100	300			420
Base Capacity (vph)	1263	701	800	3023	418	753
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.47	1.06	0.37	0.11	1.11

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	417	409	373	431	1023	1081	530
v/c Ratio	0.87	0.89	0.74	0.93	0.47	1.01	0.62
Control Delay	50.7	52.2	30.0	40.6	19.4	63.6	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.7	0.0	0.0
Total Delay	50.7	52.2	30.0	40.6	20.1	63.6	6.2
Queue Length 50th (ft)	229	228	140	224	288	~371	0
Queue Length 95th (ft)	#388	#401	250	m#314	m345	#496	80
Internal Link Dist (ft)		1410			440	1540	
Turn Bay Length (ft)	400		400	285			
Base Capacity (vph)	514	494	535	477	2181	1072	852
Starvation Cap Reductn	0	0	0	0	743	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.83	0.70	0.90	0.71	1.01	0.62

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



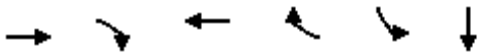
Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	406	473	989	759	405	1388
v/c Ratio	0.85	1.01	0.87	0.82	0.92	0.63
Control Delay	49.6	75.9	39.0	14.3	51.8	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.8
Total Delay	49.6	75.9	39.0	14.3	51.8	6.6
Queue Length 50th (ft)	229	~264	281	56	185	78
Queue Length 95th (ft)	#396	#477	#397	#307	m201	m103
Internal Link Dist (ft)		1071	1060			440
Turn Bay Length (ft)	900					
Base Capacity (vph)	476	467	1141	924	461	2186
Starvation Cap Reductn	0	0	0	0	0	446
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.85	1.01	0.87	0.82	0.88	0.80

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

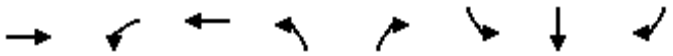


Lane Group	EBT	EBR	WBT	WBR	SBL	SBT
Lane Group Flow (vph)	1114	78	916	314	946	1050
v/c Ratio	0.81	0.17	0.67	0.33	0.99	1.19
Control Delay	28.3	6.3	24.2	3.7	44.2	113.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.3	6.3	24.2	3.7	44.2	113.1
Queue Length 50th (ft)	150	0	118	0	352	~536
Queue Length 95th (ft)	198	27	158	28	#636	#768
Internal Link Dist (ft)	970		693			1282
Turn Bay Length (ft)		175				
Base Capacity (vph)	1372	472	1372	964	955	886
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.17	0.67	0.33	0.99	1.19

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	1006	133	293	19	163	394	395	74
v/c Ratio	0.97	0.57	0.17	0.17	0.68	0.75	0.75	0.12
Control Delay	50.8	44.5	24.1	39.0	24.4	33.9	33.4	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.8	44.5	24.1	39.0	24.4	33.9	33.4	0.6
Queue Length 50th (ft)	~270	66	65	9	7	182	182	0
Queue Length 95th (ft)	#404	m#170	105	30	#86	256	255	3
Internal Link Dist (ft)	980		1139				1358	
Turn Bay Length (ft)		200				1000		255
Base Capacity (vph)	1042	232	1713	115	241	662	670	711
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.57	0.17	0.17	0.68	0.60	0.59	0.10

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	WBT	WBR	NBL	NBT
Lane Group Flow (vph)	1609	467	1024	832	141	398
v/c Ratio	0.59	0.44	0.37	0.67	0.28	0.82
Control Delay	12.2	2.6	10.1	4.0	18.2	33.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.2	2.6	10.1	4.0	18.2	33.7
Queue Length 50th (ft)	154	0	84	0	43	130
Queue Length 95th (ft)	210	42	119	53	81	#252
Internal Link Dist (ft)	693		840			1223
Turn Bay Length (ft)						
Base Capacity (vph)	2746	1055	2746	1246	585	557
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.44	0.37	0.67	0.24	0.71

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	1029	185	452	1348	157	1243
v/c Ratio	0.81	0.29	1.38	0.65	0.14	1.61
Control Delay	24.2	7.3	219.6	12.9	20.6	299.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.2	7.3	219.6	12.9	20.6	299.7
Queue Length 50th (ft)	206	17	~305	204	29	~789
Queue Length 95th (ft)	m246	m25	#452	241	49	#967
Internal Link Dist (ft)	1139			2865	1665	
Turn Bay Length (ft)		100	300			420
Base Capacity (vph)	1376	692	327	2188	1130	772
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.27	1.38	0.62	0.14	1.61

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	385	387	354	371	1158	1079	523
v/c Ratio	0.81	0.85	0.74	0.90	0.53	0.91	0.59
Control Delay	43.9	46.9	31.4	41.0	23.0	43.3	5.5
Queue Delay	0.0	0.0	0.0	0.0	1.6	0.0	0.0
Total Delay	43.9	46.9	31.4	41.0	24.6	43.3	5.5
Queue Length 50th (ft)	207	212	142	194	367	~331	0
Queue Length 95th (ft)	308	#328	238	m#273	m430	#470	75
Internal Link Dist (ft)		1410			404	1540	
Turn Bay Length (ft)				285			400
Base Capacity (vph)	552	528	545	414	2189	1184	881
Starvation Cap Reductn	0	0	0	0	793	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.73	0.65	0.90	0.83	0.91	0.59

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	390	447	1065	666	391	1340
v/c Ratio	0.85	0.98	0.89	0.71	0.90	0.60
Control Delay	50.8	66.8	39.9	8.1	53.0	5.0
Queue Delay	11.2	36.9	0.0	0.0	0.0	0.6
Total Delay	62.1	103.8	39.9	8.1	53.0	5.7
Queue Length 50th (ft)	222	234	306	18	173	61
Queue Length 95th (ft)	#386	#442	#436	127	m#227	m103
Internal Link Dist (ft)		1071	1124			404
Turn Bay Length (ft)	900					
Base Capacity (vph)	457	458	1198	936	461	2226
Starvation Cap Reductn	0	0	0	0	0	481
Spillback Cap Reductn	53	50	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.97	1.10	0.89	0.71	0.85	0.77

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

APPENDIX 7.7:

OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2022) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-71 SB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	17
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Southbound, N of Central	4275	3
2	Diverge	Diverge	Central SB Off-Ramp	1500	3
3	Basic	Basic	Cetnral SB Off-Ramp to Loop On-Ramp	1125	3
4	Merge	Merge	Central SB Loop On-Ramp	1500	3
5	Basic	Basic	Central SB Loop On-Ramp to On-Ramp	1025	3
6	Merge	Merge	Central SB On-Ramp	1500	3
7	Basic	Basic	Southbound, Central to Pine	5500	2
8	Diverge	Diverge	Pine SB Off-Ramp	1500	2
9	Basic	Basic	Pine SB Off-Ramp to On-Ramp	2315	2
10	Merge	Merge	Pine SB On-Ramp	1500	2
11	Basic	Basic	Southbound, Pine to Euclid	4500	2
12	Diverge	Diverge	Euclid SB Off-Ramp	1500	2
13	Basic	Basic	Euclid SB Off-Ramp to Loop On-Ramp	1460	2
14	Merge	Merge	Euclid SB Loop On-Ramp	1500	2
15	Basic	Basic	Euclid SB Loop On-Ramp to On-Ramp	1200	2
16	Merge	Merge	Euclid SB On-Ramp	1500	2
17	Basic	Basic	Southbound, S of Euclid	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.922	2011	7131	0.28	67.7	9.9	A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	

1	0.92	0.92	0.922	0.917	2011	872	7200	2100	0.28	0.42	62.1	59.5	10.8	16.7	B
Segment 3: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.931		1132		7116		0.16		67.2		5.6		A
Segment 4: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.931	0.847	1357	225	7200	1900	0.19	0.12	64.0	61.3	7.1	9.9	A
Segment 5: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.914		1362		7116		0.19		67.2		6.8		A
Segment 6: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.914	0.980	1473	111	7200	2100	0.20	0.05	64.5	61.6	7.6	10.4	B
Segment 7: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.922		1468		4726		0.31		66.3		11.1		B
Segment 8: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.922	0.943	1468	219	4800	2100	0.31	0.10	61.1	61.1	12.0	15.3	B
Segment 9: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.914		1255		4718		0.27		65.9		9.5		A
Segment 10: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.914	0.943	1298	43	4800	2100	0.27	0.02	61.6	61.6	10.5	13.1	B
Segment 11: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.914		1299		4726		0.27		66.3		9.8		A
Segment 12: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**

	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.914	0.917	1299	793	4800	2100	0.27	0.38	59.7	59.7	10.9	14.2	B

Segment 13: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.931	494	4744	0.10	67.2	3.7	A

Segment 14: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.931	0.885	1050	556	4800	1900	0.22	0.29	61.4	61.4	8.6	10.3	B

Segment 15: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.899	1059	4744	0.22	67.2	7.9	A

Segment 16: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.899	0.926	1835	776	4800	2100	0.38	0.37	61.5	61.5	14.9	16.7	B

Segment 17: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.907	1842	4554	0.40	57.7	16.0	B

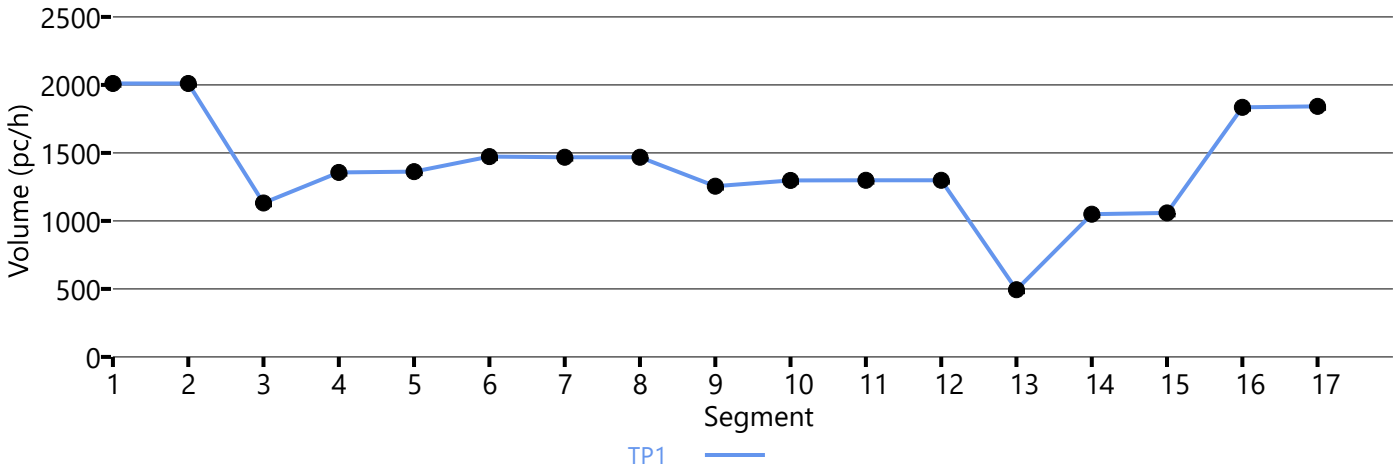
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	63.6	10.3	9.4	6.9	A

Facility Overall Results

Space Mean Speed, mi/h	63.6	Density, veh/mi/ln	9.4
Average Travel Time, min	6.9	Density, pc/mi/ln	10.3

Volume Distribution



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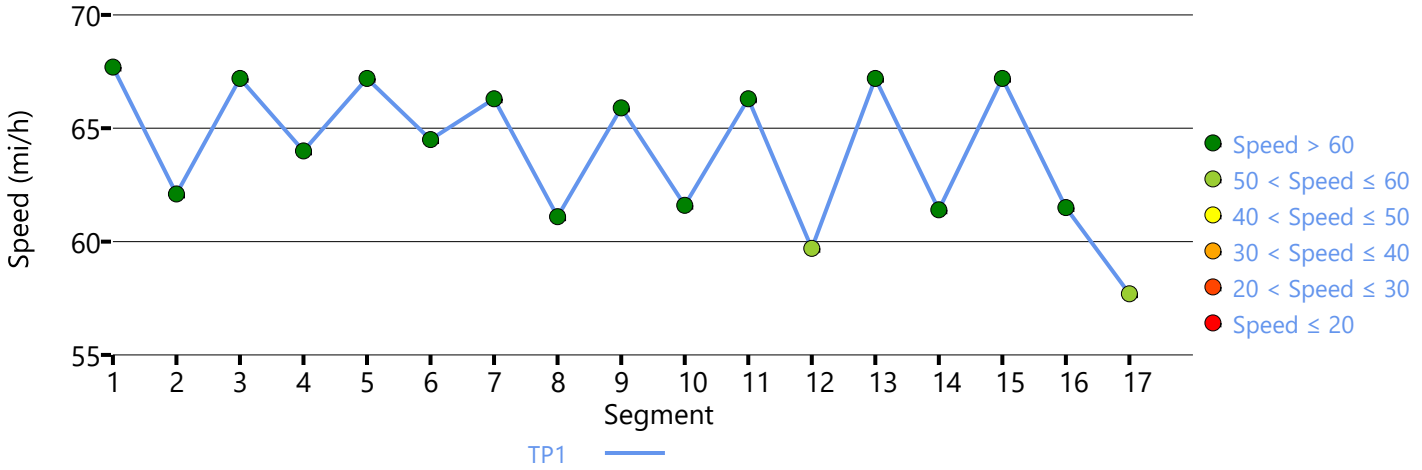
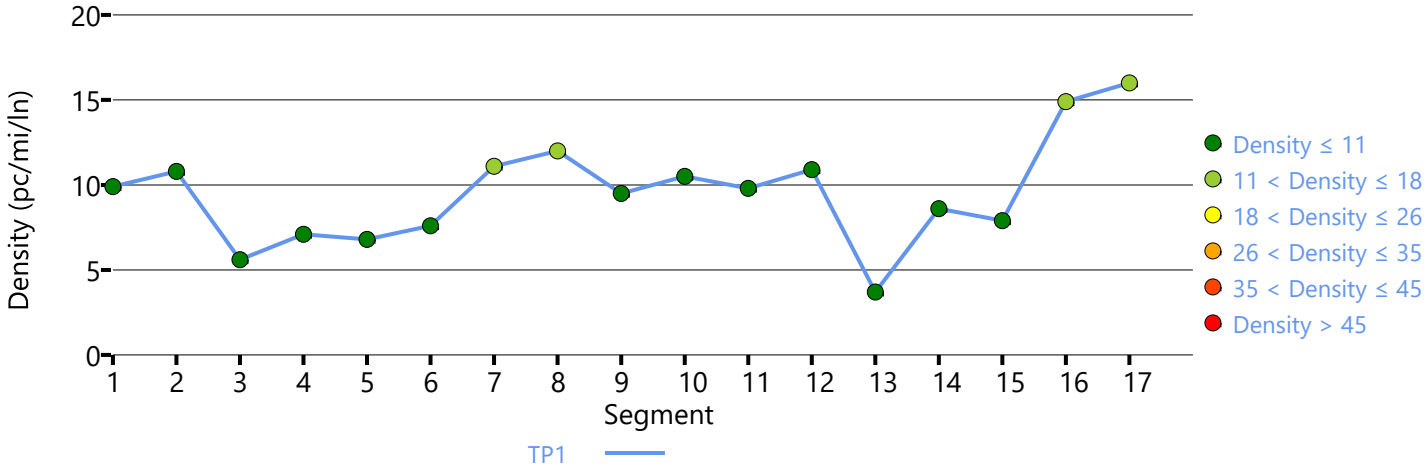


Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2022) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-71 NB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	15
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Northbound, S of Euclid	5280	3
2	Diverge	Basic	Euclid NB Off-Ramp	1500	3
3	Basic	Basic	Euclid NB Off-Ramp to On-Ramp	1500	2
4	Merge	Merge	Euclid NB On-Ramp	1500	2
5	Basic	Basic	Northbound, Euclid to Pine	4500	2
6	Diverge	Diverge	Pine NB Off-Ramp	1500	2
7	Basic	Basic	Pine NB Off-Ramp to On-Ramp	2225	2
8	Merge	Basic	Pine NB On-Ramp	1500	2
9	Basic	Basic	Northbound, Pine to Central	5500	3
10	Diverge	Diverge	Central NB Off-Ramp	1500	3
11	Basic	Basic	Central NB Off-Ramp to Loop On-Ramp	1050	3
12	Merge	Merge	Central NB Loop On-Ramp	1500	3
13	Basic	Basic	Central NB Loop On-Ramp to On-Ramp	1040	3
14	Merge	Merge	Central NB On-Ramp	1500	3
15	Basic	Basic	Northbound, N of Central	4275	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.763	2000	6831	0.29	57.7	11.6	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.763	0.901	2000	758	7200	4200	0.28	0.18	70.0	-	9.5	-	A

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.680		1240		4754		0.26		67.7		9.2		A
Segment 4: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.680	0.943	2430	1190	4800	1900	0.51	0.63	60.7	60.7	20.0	19.7	B
Segment 5: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.806		2438		4736		0.51		66.8		18.2		C
Segment 6: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.806	0.952	2438	78	4800	2100	0.51	0.04	61.5	61.5	19.8	24.0	C
Segment 7: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.806		2347		4726		0.50		66.3		17.7		B
Segment 8: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.806	0.980	2865	518	4800	2100	0.49	0.25	70.0	-	16.8	-	B
Segment 9: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.833		2880		7089		0.41		66.3		14.5		B
Segment 10: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.833	0.943	2880	529	7200	2100	0.40	0.25	64.1	60.3	15.0	21.3	C
Segment 11: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.813		2337		7116		0.33		67.2		11.6		B
Segment 12: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.813	0.971	3245	908	7200	1900	0.45	0.48	62.8	60.7	17.2	19.7	B

Segment 13: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.855	3253	7116	0.46	67.2	16.1	B

Segment 14: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.855	0.935	4366	1113	7200	2100	0.61	0.53	61.9	59.9	23.5	25.8	C

Segment 15: Basic

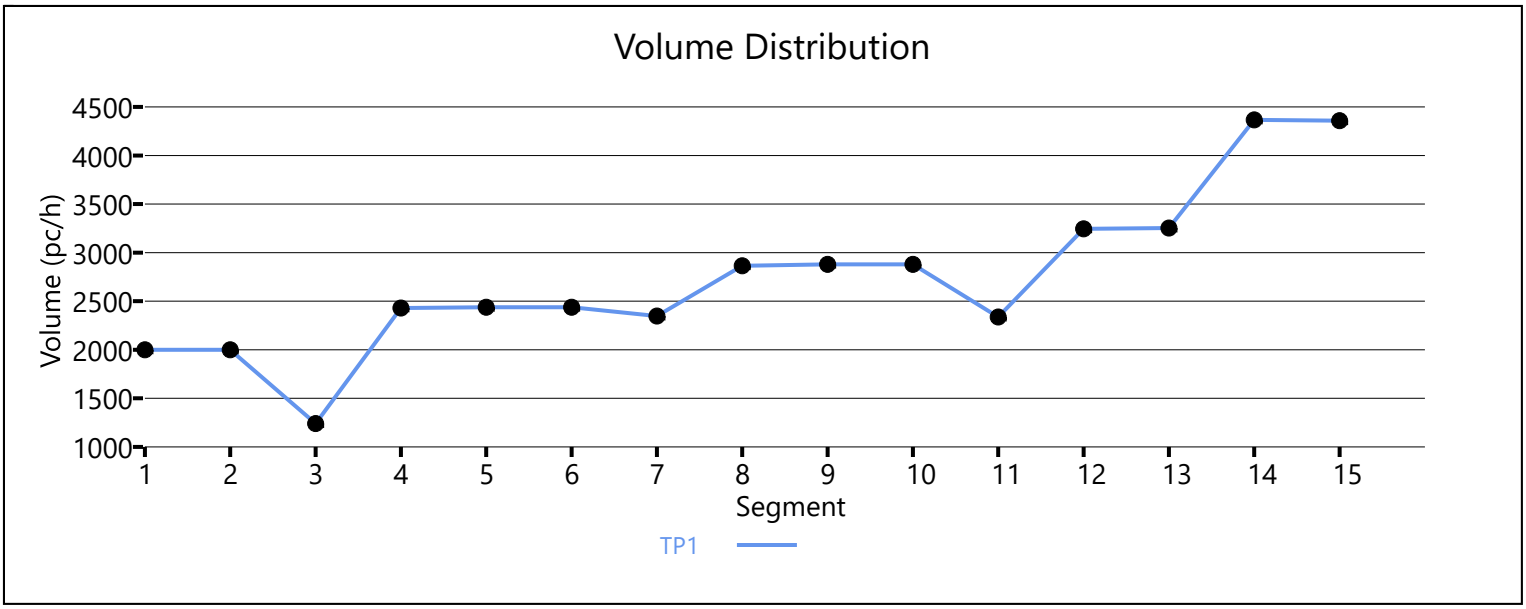
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.877	4358	7131	0.61	67.4	21.6	C

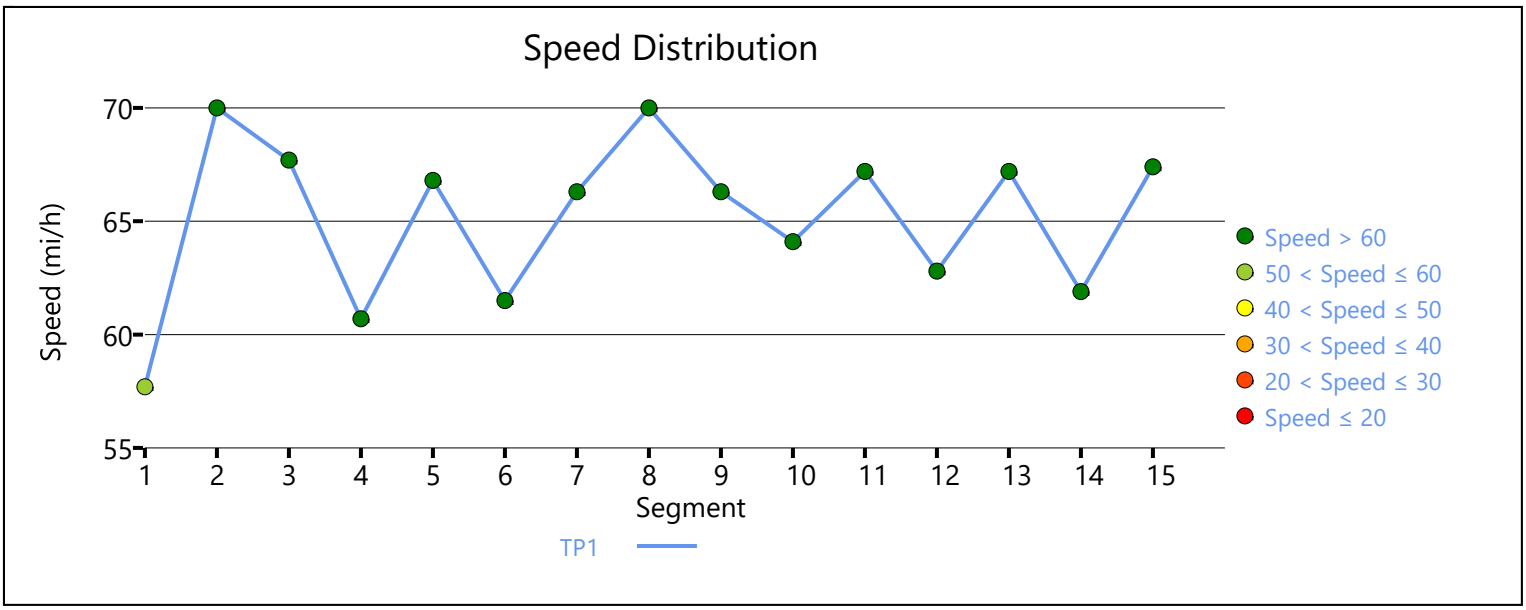
Facility Time Period Results

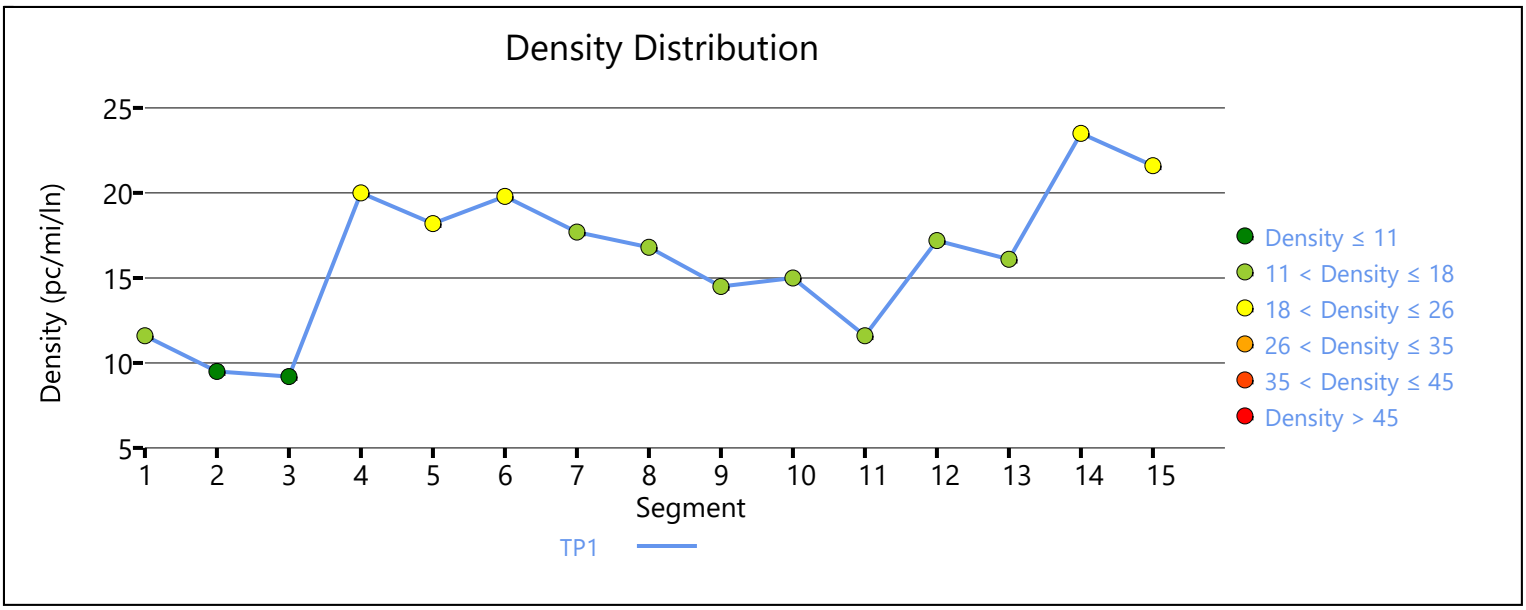
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.0	16.0	13.1	6.3	B

Facility Overall Results

Space Mean Speed, mi/h	65.0	Density, veh/mi/ln	13.1
Average Travel Time, min	6.3	Density, pc/mi/ln	16.0







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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2022) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-60 WB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Euclid	2500	4
2	Diverge	Diverge	Off-Ramp at Euclid	1500	4
3	Basic	Basic	Between	2200	4
4	Merge	Merge	On-Ramp at Euclid	1500	4
5	Basic	Basic	West of Euclid	1500	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	8865	9548	0.93	57.4	38.6	E

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.952	0.826	8865	1091	9600	2100	0.92	0.52	64.8	58.9	34.2	38.6	E

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	7763	9548	0.81	62.9	30.9	D

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.855	8737	974	9600	2100	0.91	0.46	60.2	57.1	36.3	30.7	D

Segment 5: Basic

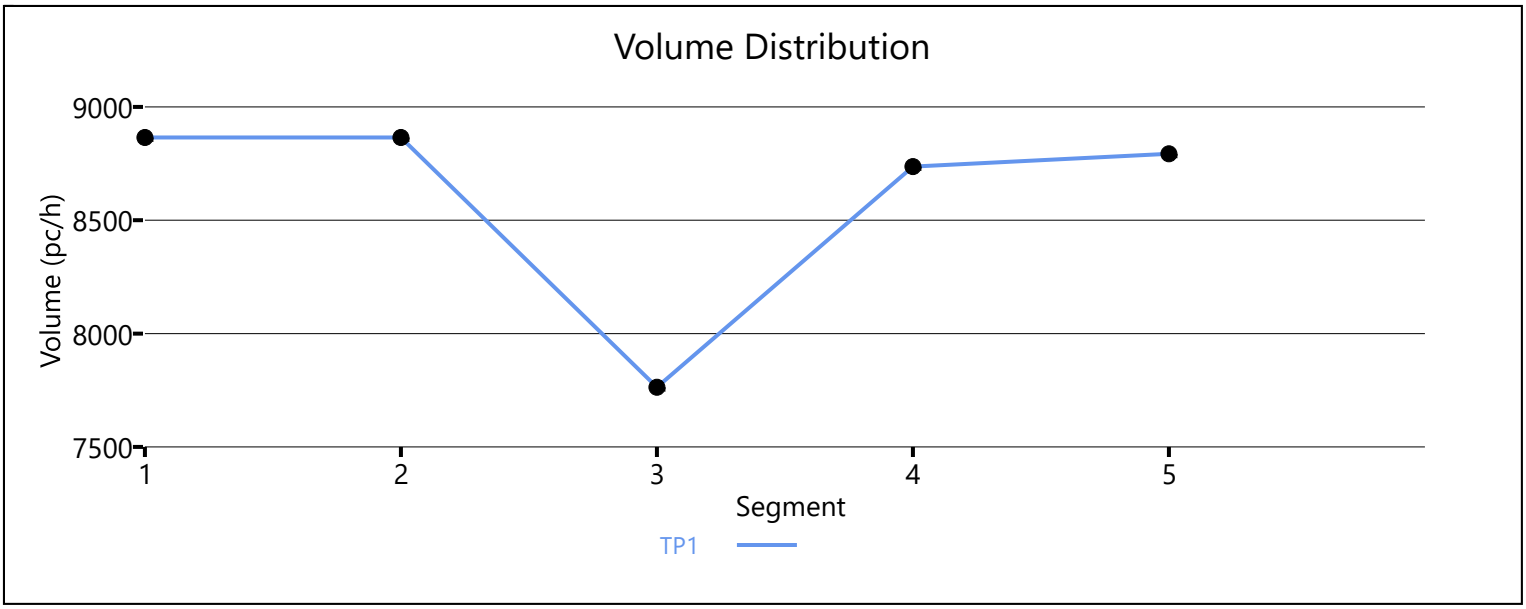
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	8793	9548	0.92	57.8	38.0	E

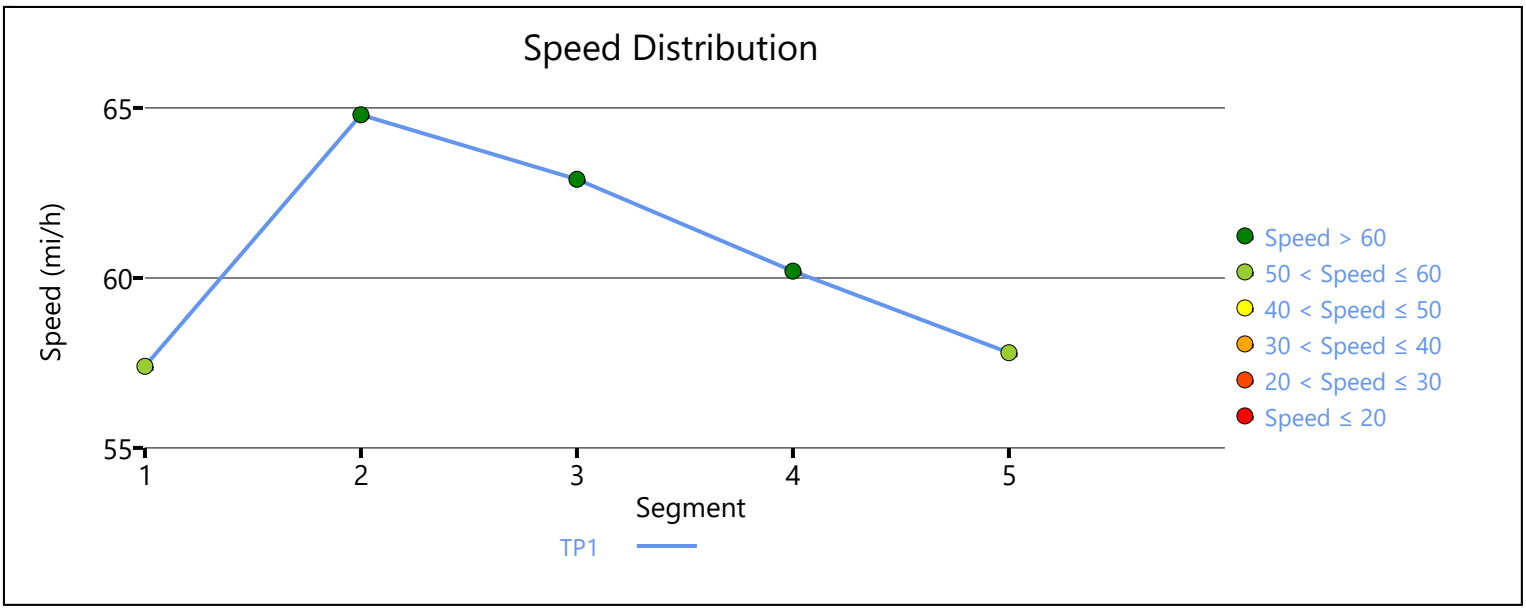
Facility Time Period Results

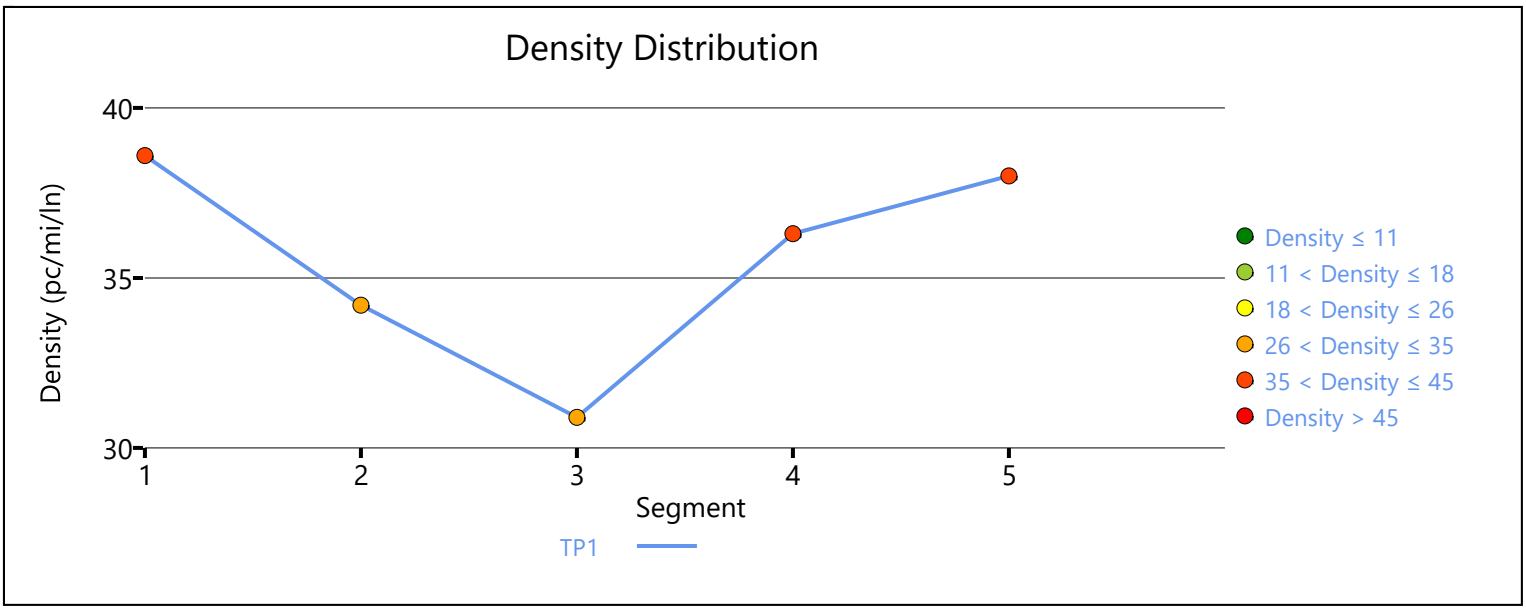
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	60.3	35.6	34.1	1.7	E

Facility Overall Results

Space Mean Speed, mi/h	60.3	Density, veh/mi/ln	34.1
Average Travel Time, min	1.7	Density, pc/mi/ln	35.6







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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2022) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-60 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Euclid	1370	4
2	Diverge	Diverge	Off-Ramp at Euclid	1500	4
3	Basic	Basic	Between	2100	4
4	Merge	Merge	On-Ramp at Euclid	1500	4
5	Basic	Basic	East of Euclid	3000	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	8368	9548	0.88	60.1	34.8	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.847	8368	862	9600	2100	0.87	0.41	65.4	59.5	32.0	34.9	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	7471	9548	0.78	64.1	29.1	D

Segment 4: Merge

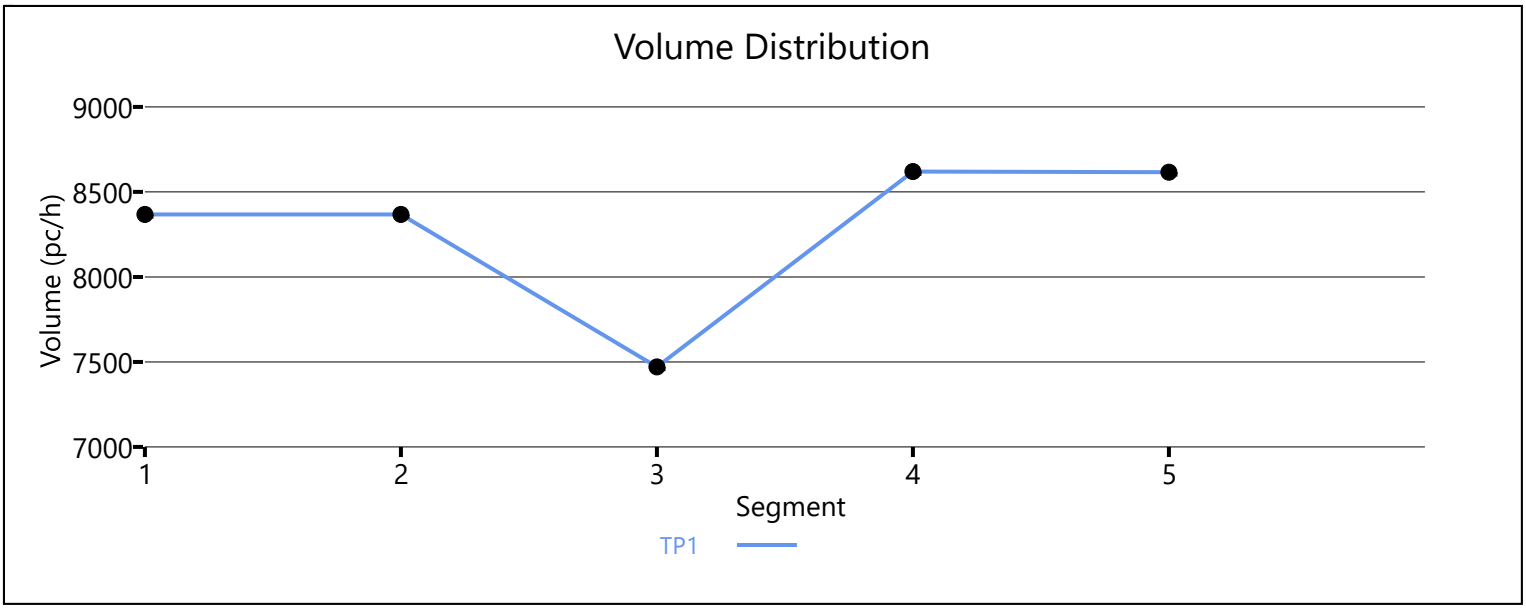
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.847	8620	1149	9600	2100	0.90	0.55	60.2	56.8	35.8	30.8	D

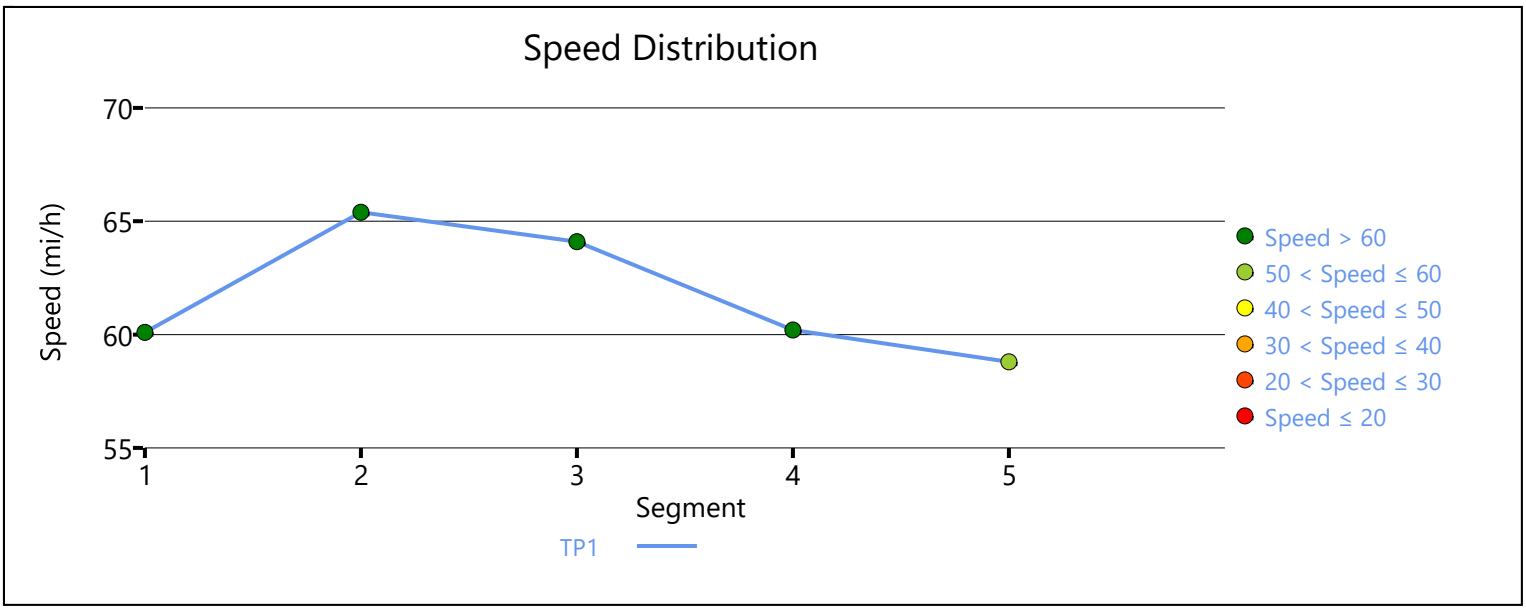
Segment 5: Basic

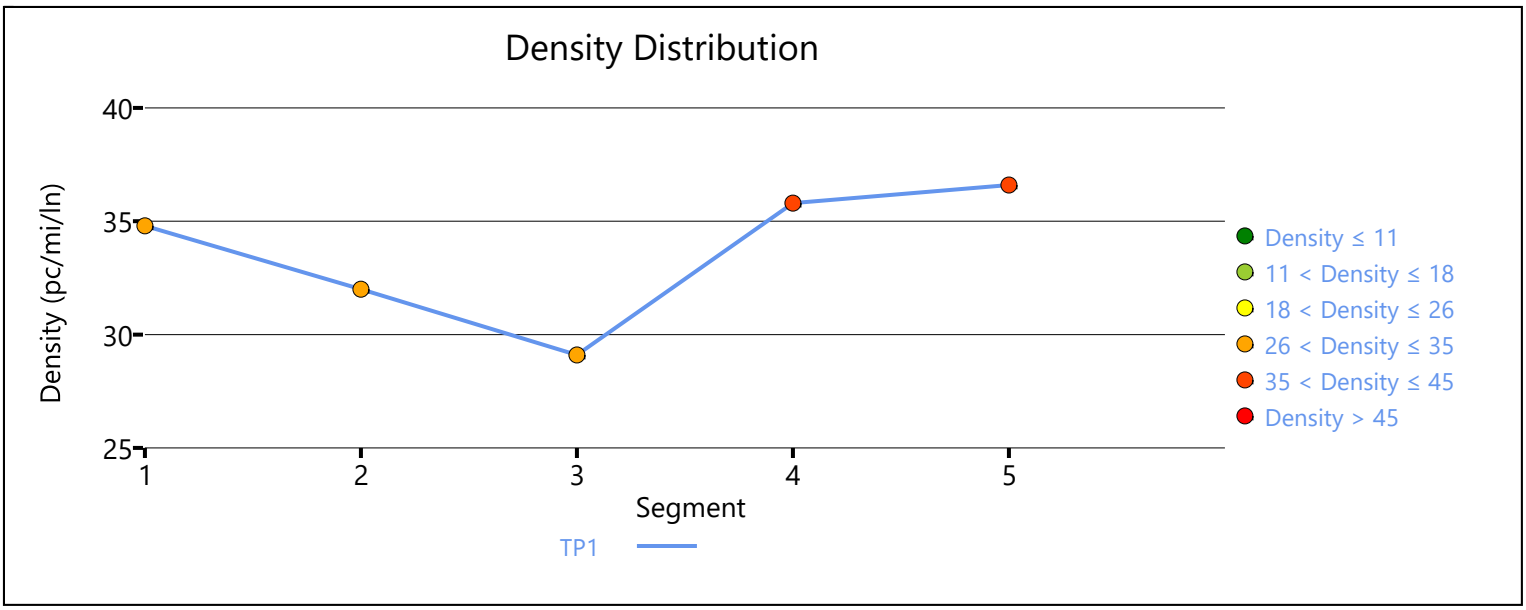
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	8616	9548	0.90	58.8	36.6	E

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	61.2	33.8	33.4	1.8	D

Facility Overall Results			
Space Mean Speed, mi/h	61.2	Density, veh/mi/ln	33.4
Average Travel Time, min	1.8	Density, pc/mi/ln	33.8







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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2022) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-71 SB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	17
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Southbound, N of Central	4275	3
2	Diverge	Diverge	Central SB Off-Ramp	1500	3
3	Basic	Basic	Cetnral SB Off-Ramp to Loop On-Ramp	1125	3
4	Merge	Merge	Central SB Loop On-Ramp	1500	3
5	Basic	Basic	Central SB Loop On-Ramp to On-Ramp	1025	3
6	Merge	Merge	Central SB On-Ramp	1500	3
7	Basic	Basic	Southbound, Central to Pine	5500	2
8	Diverge	Diverge	Pine SB Off-Ramp	1500	2
9	Basic	Basic	Pine SB Off-Ramp to On-Ramp	2315	2
10	Merge	Merge	Pine SB On-Ramp	1500	2
11	Basic	Basic	Southbound, Pine to Euclid	4500	2
12	Diverge	Diverge	Euclid SB Off-Ramp	1500	2
13	Basic	Basic	Euclid SB Off-Ramp to Loop On-Ramp	1460	2
14	Merge	Merge	Euclid SB Loop On-Ramp	1500	2
15	Basic	Basic	Euclid SB Loop On-Ramp to On-Ramp	1200	2
16	Merge	Merge	Euclid SB On-Ramp	1500	2
17	Basic	Basic	Southbound, S of Euclid	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.939	3946	7131	0.55	67.7	19.4	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	

1	0.92	0.92	0.939	0.952	3946	1906	7200	2100	0.55	0.91	60.3	56.8	21.8	29.1	D
Segment 3: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.939		2014		7116		0.28		67.2		10.0		A
Segment 4: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.939	0.952	2328	314	7200	1900	0.32	0.17	63.6	61.1	12.2	14.6	B
Segment 5: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.939		2332		7116		0.33		67.2		11.6		B
Segment 6: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.939	0.901	2412	80	7200	2100	0.34	0.04	64.0	61.4	12.6	14.6	B
Segment 7: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.939		2409		4726		0.51		66.3		18.2		C
Segment 8: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.939	0.962	2409	1198	4800	2100	0.50	0.57	58.6	58.6	20.6	23.4	C
Segment 9: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.922		1204		4718		0.26		65.9		9.1		A
Segment 10: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.922	0.926	1267	63	4800	2100	0.26	0.03	61.6	61.6	10.3	12.9	B
Segment 11: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.922		1267		4726		0.27		66.3		9.6		A
Segment 12: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**

	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.922	0.952	1267	878	4800	2100	0.26	0.42	59.4	59.4	10.7	13.9	B

Segment 13: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.892	373	4744	0.08	67.2	2.8	A

Segment 14: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.892	0.943	1146	773	4800	1900	0.24	0.41	61.4	61.4	9.3	10.9	B

Segment 15: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.922	1152	4744	0.24	67.2	8.6	A

Segment 16: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.922	0.971	1924	772	4800	2100	0.40	0.37	61.4	61.4	15.7	17.4	B

Segment 17: Basic

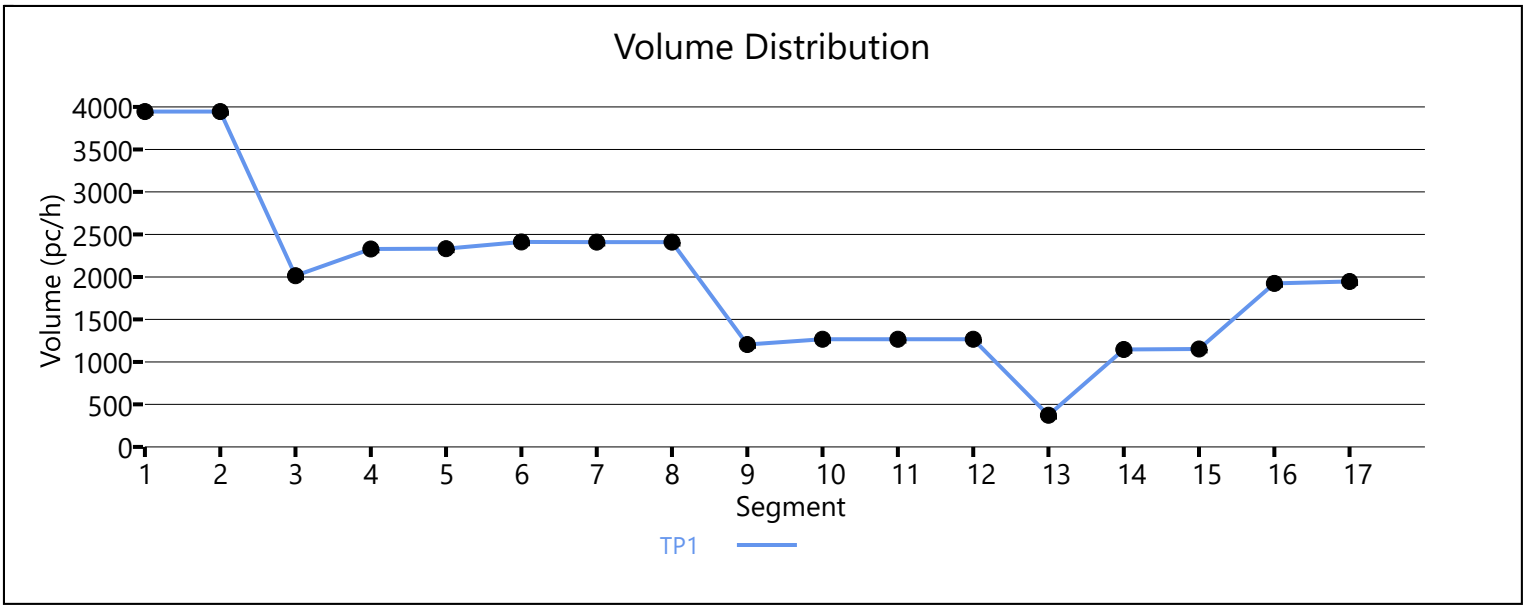
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.931	1946	4554	0.43	57.7	16.9	B

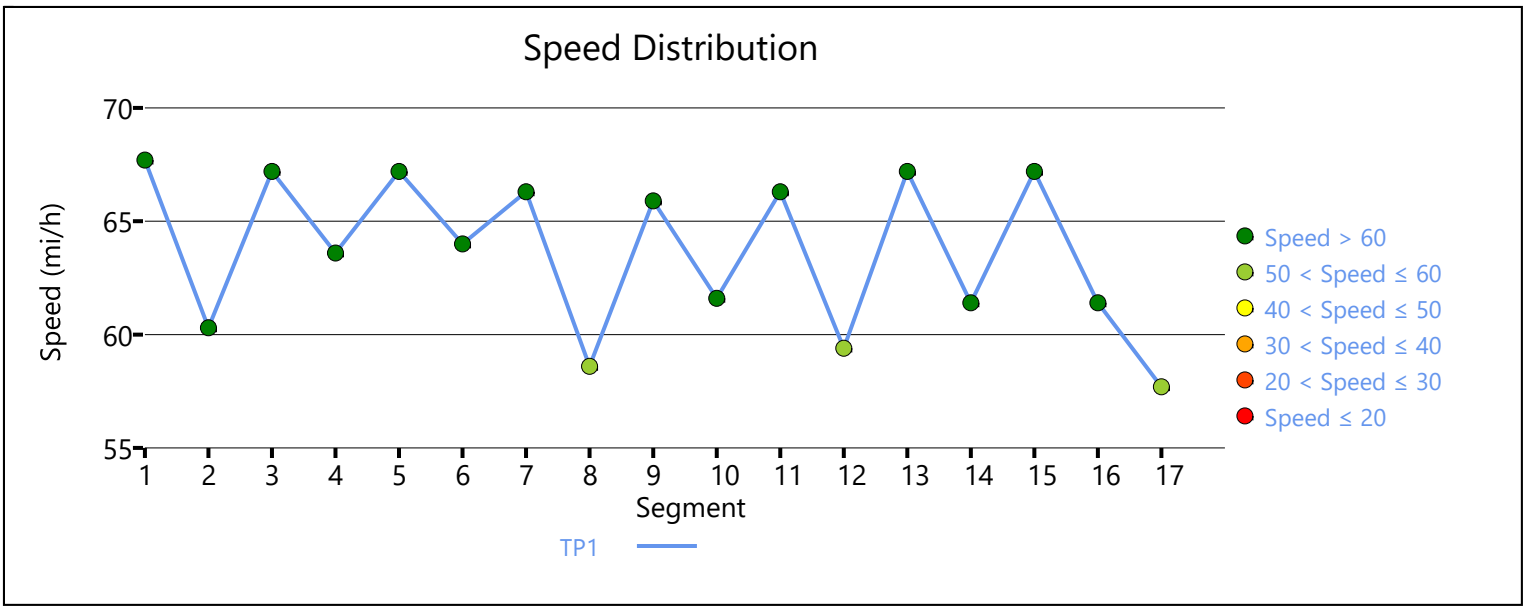
Facility Time Period Results

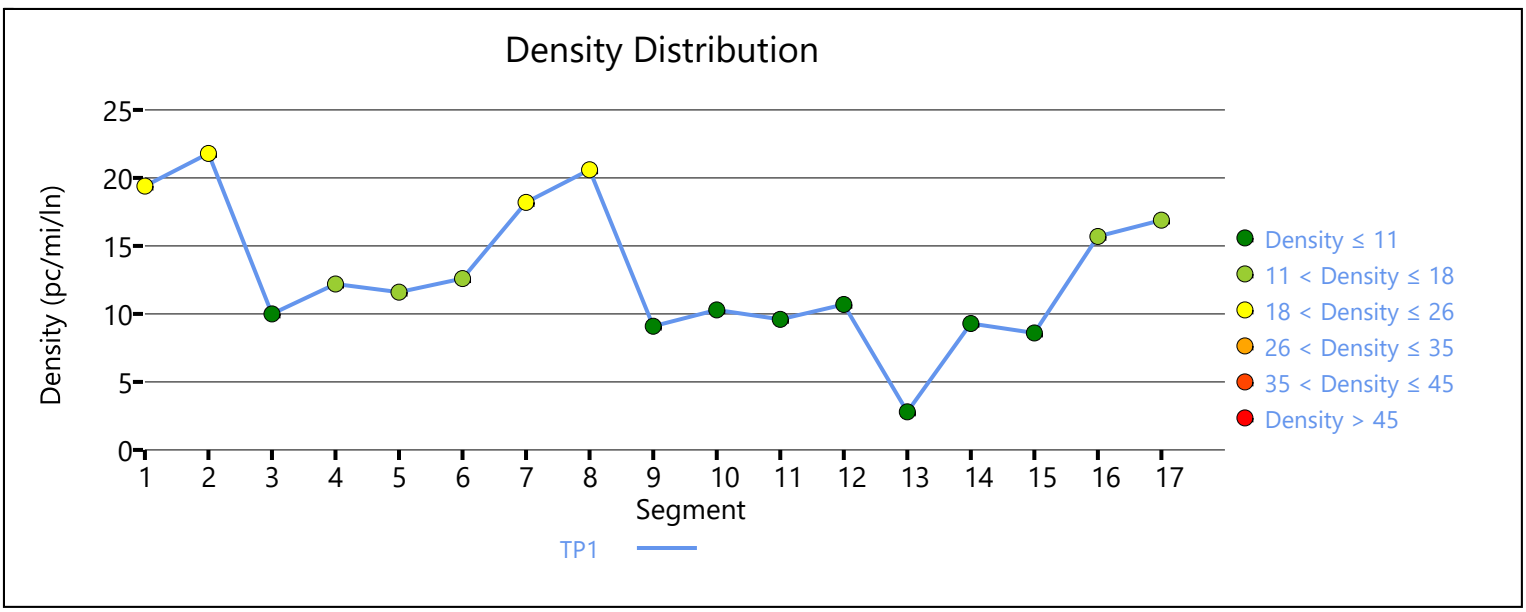
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	63.8	14.3	13.4	6.9	B

Facility Overall Results

Space Mean Speed, mi/h	63.8	Density, veh/mi/ln	13.4
Average Travel Time, min	6.9	Density, pc/mi/ln	14.3







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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2022) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-71 NB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	15
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Northbound, S of Euclid	5280	3
2	Diverge	Basic	Euclid NB Off-Ramp	1500	3
3	Basic	Basic	Euclid NB Off-Ramp to On-Ramp	1500	2
4	Merge	Merge	Euclid NB On-Ramp	1500	2
5	Basic	Basic	Northbound, Euclid to Pine	4500	2
6	Diverge	Diverge	Pine NB Off-Ramp	1500	2
7	Basic	Basic	Pine NB Off-Ramp to On-Ramp	2225	2
8	Merge	Basic	Pine NB On-Ramp	1500	2
9	Basic	Basic	Northbound, Pine to Central	5500	3
10	Diverge	Diverge	Central NB Off-Ramp	1500	3
11	Basic	Basic	Central NB Off-Ramp to Loop On-Ramp	1050	3
12	Merge	Merge	Central NB Loop On-Ramp	1500	3
13	Basic	Basic	Central NB Loop On-Ramp to On-Ramp	1040	3
14	Merge	Merge	Central NB On-Ramp	1500	3
15	Basic	Basic	Northbound, N of Central	4275	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.877	3527	6831	0.52	57.7	20.4	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.877	0.943	3527	1180	7207	4200	0.49	0.28	70.0	-	16.8	-	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.840		2358		4754		0.50		67.7		17.4		B
Segment 4: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.840	0.962	2929	571	4800	1900	0.61	0.30	59.9	59.9	24.4	23.9	C
Segment 5: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.862		2934		4736		0.62		66.5		22.1		C
Segment 6: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.862	0.952	2934	135	4800	2100	0.61	0.06	61.3	61.3	23.9	28.2	D
Segment 7: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.862		2785		4726		0.59		66.3		21.0		C
Segment 8: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.862	0.971	3168	383	4800	2100	0.58	0.18	69.6	-	20.0	-	C
Segment 9: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.877		3162		7089		0.45		66.3		15.9		B
Segment 10: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.877	0.909	3162	593	7200	2100	0.44	0.28	64.1	60.2	16.4	22.9	C
Segment 11: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.870		2567		7116		0.36		67.2		12.7		B
Segment 12: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.870	0.971	3066	499	7200	1900	0.43	0.26	63.2	60.9	16.2	17.8	B

Segment 13: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.885	3072	7116	0.43	67.2	15.2	B

Segment 14: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.885	0.952	3762	690	7200	2100	0.52	0.33	62.8	60.8	20.0	21.9	C

Segment 15: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.893	3779	7131	0.53	67.7	18.6	C

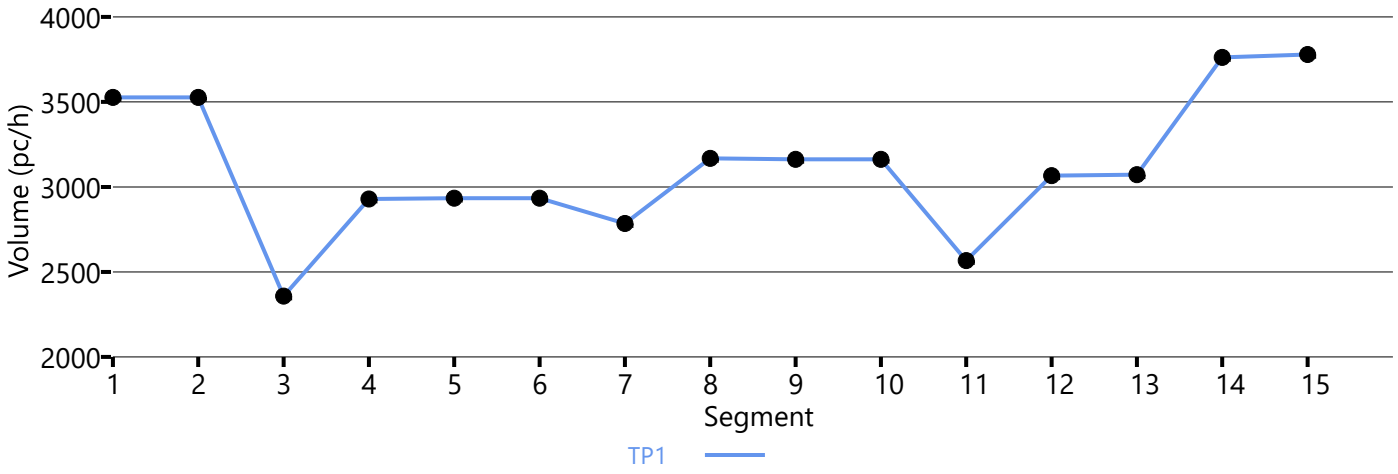
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	64.5	18.7	16.3	6.3	C

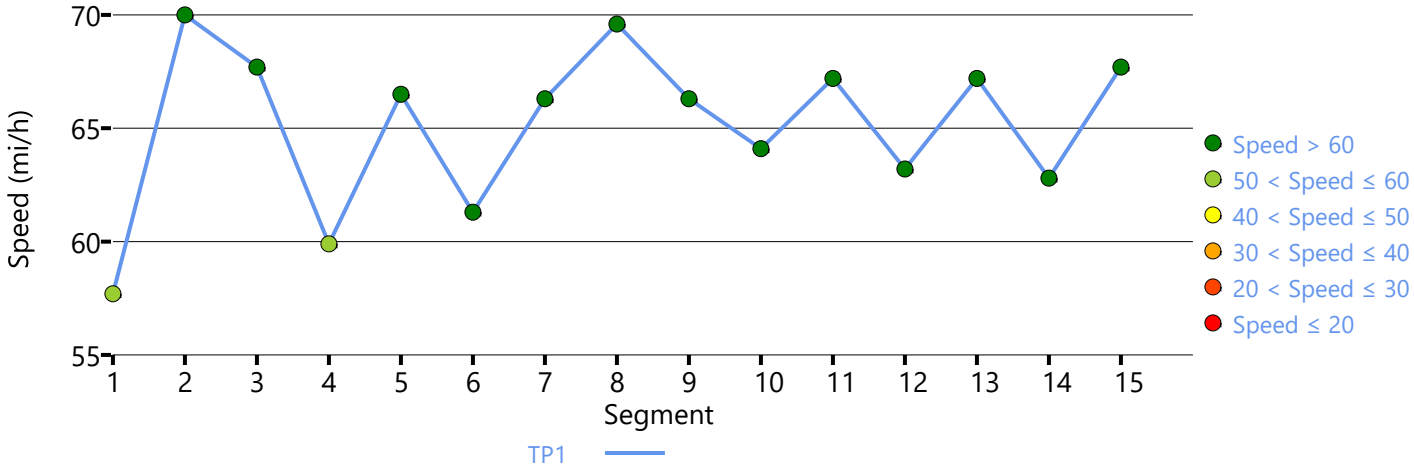
Facility Overall Results

Space Mean Speed, mi/h	64.5	Density, veh/mi/ln	16.3
Average Travel Time, min	6.3	Density, pc/mi/ln	18.7

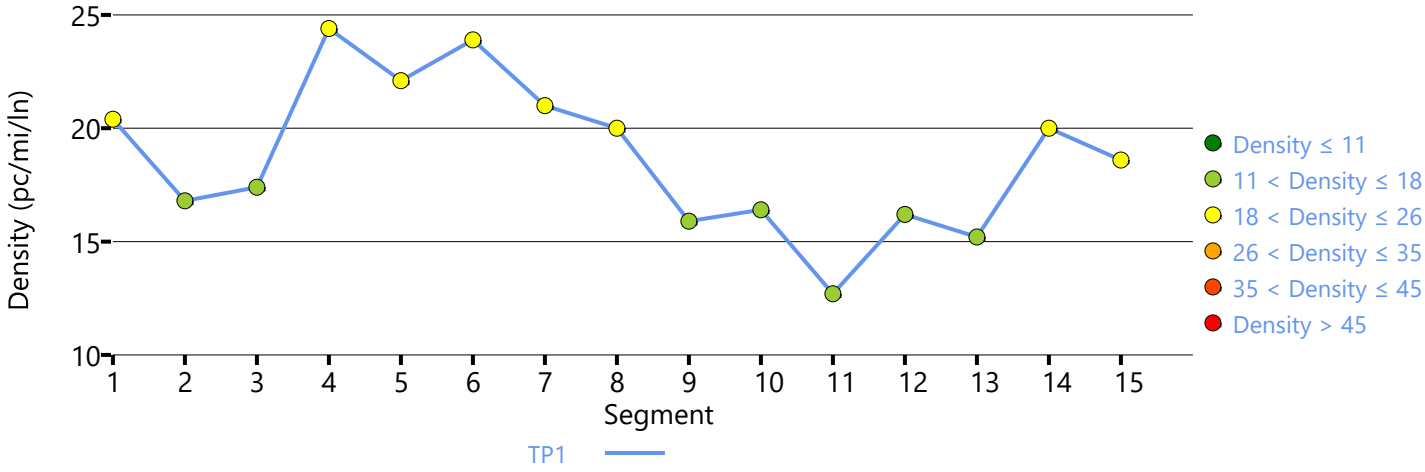
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2022) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-60 WB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Euclid	2500	4
2	Diverge	Diverge	Off-Ramp at Euclid	1500	4
3	Basic	Basic	Between	2200	4
4	Merge	Merge	On-Ramp at Euclid	1500	4
5	Basic	Basic	West of Euclid	1500	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	8689	9548	0.91	58.4	37.2	E

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.877	8689	1101	9600	2100	0.91	0.52	64.8	58.9	33.5	38.0	E

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	7614	9548	0.80	63.5	30.0	D

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.885	8519	905	9600	2100	0.89	0.43	60.8	57.8	35.0	29.7	D

Segment 5: Basic

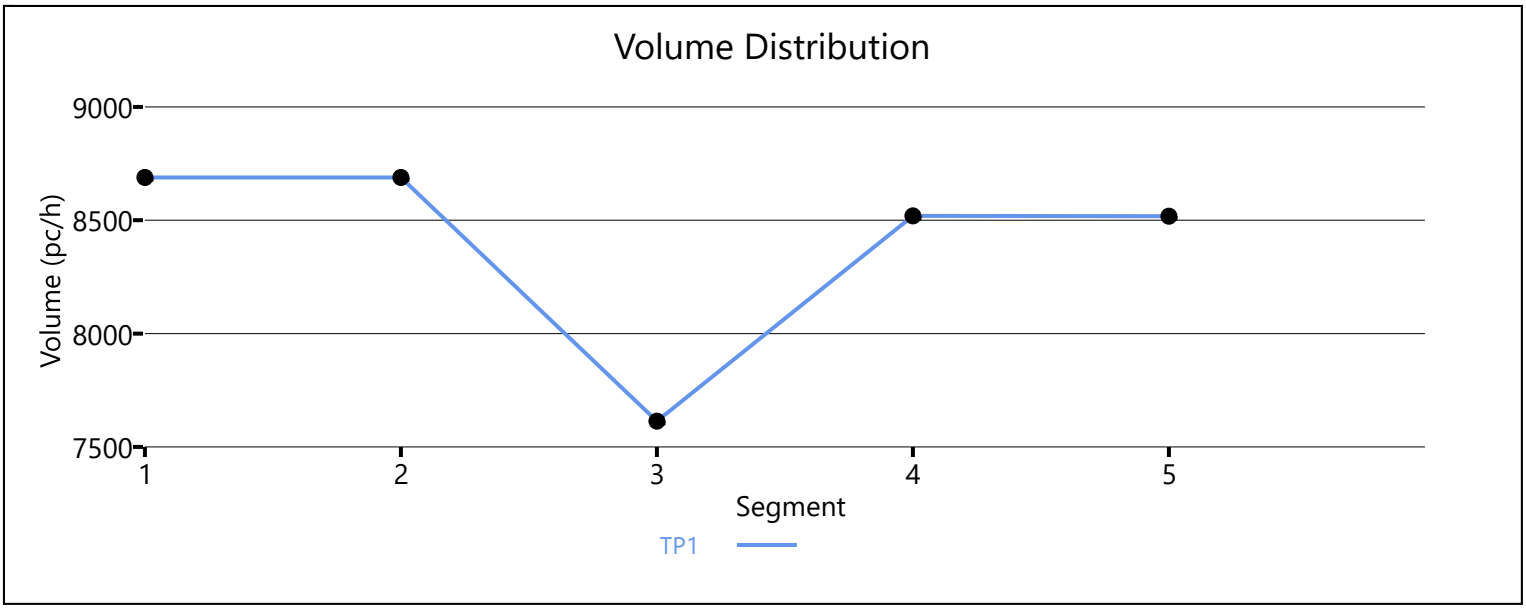
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	8518	9548	0.89	59.3	35.9	E

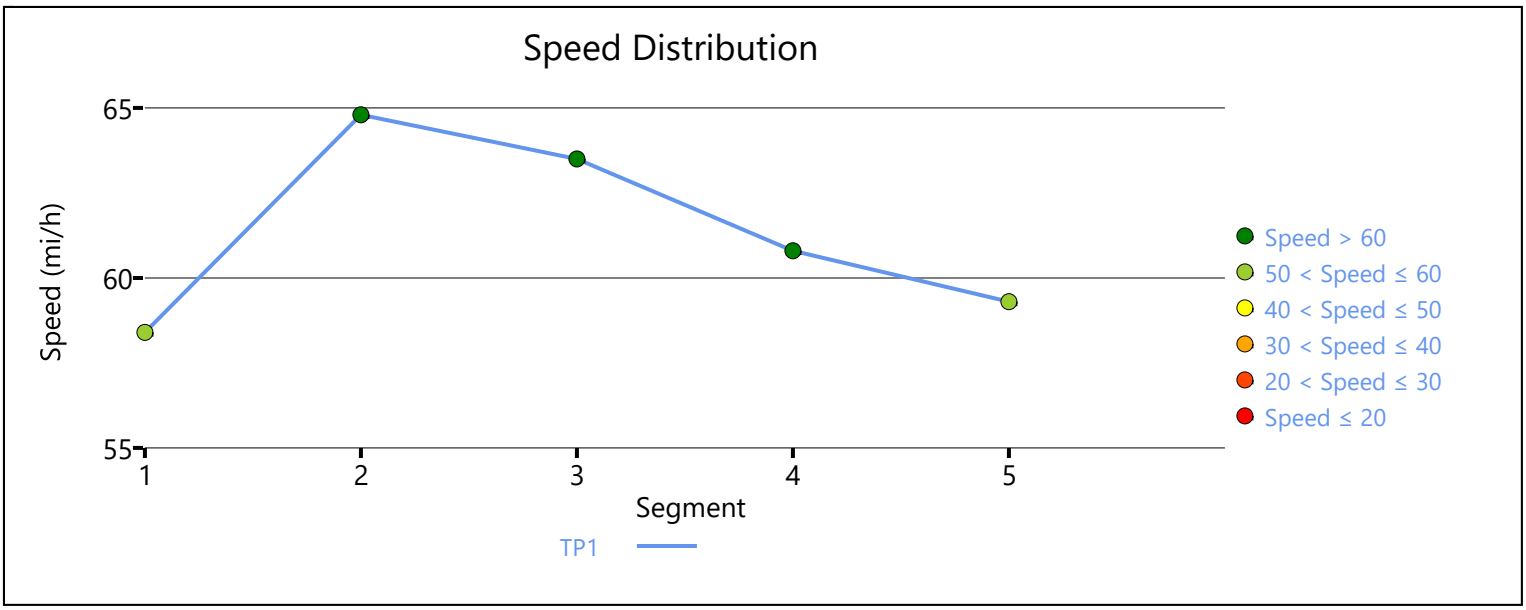
Facility Time Period Results

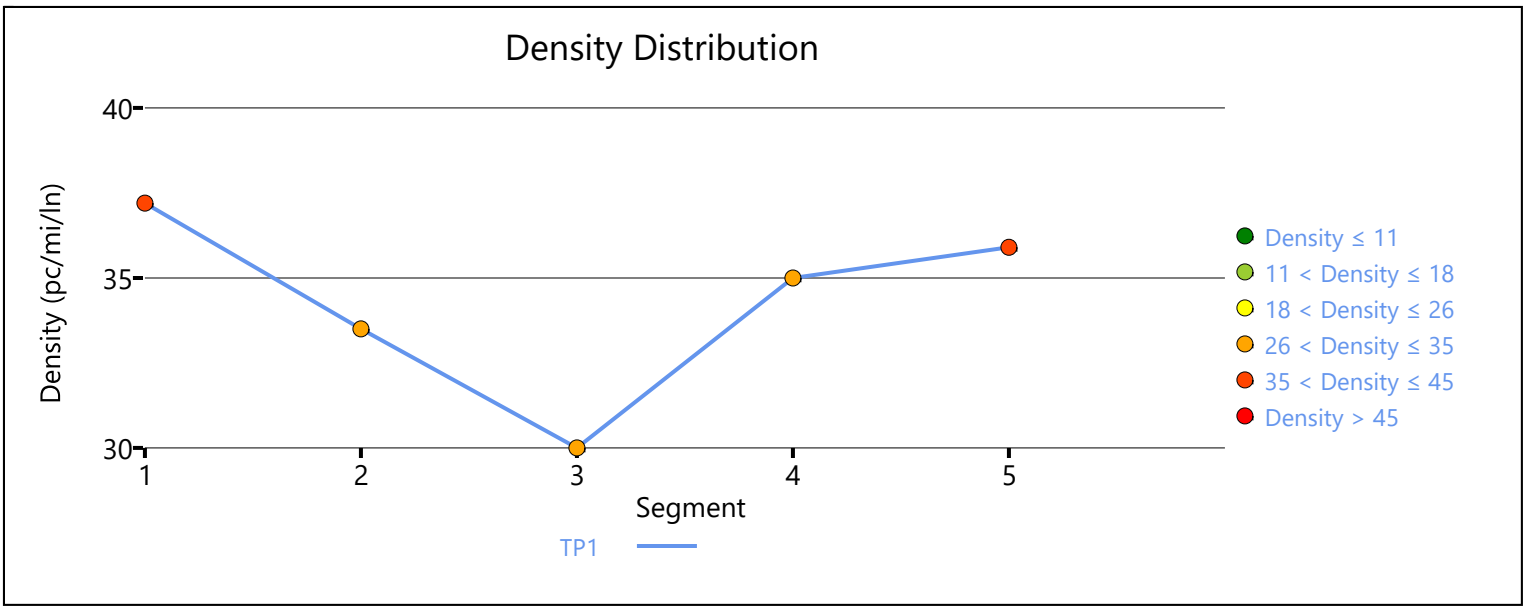
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	61.0	34.3	33.1	1.7	D

Facility Overall Results

Space Mean Speed, mi/h	61.0	Density, veh/mi/ln	33.1
Average Travel Time, min	1.7	Density, pc/mi/ln	34.3







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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2022) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-60 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Euclid	1370	4
2	Diverge	Diverge	Off-Ramp at Euclid	1500	4
3	Basic	Basic	Between	2100	4
4	Merge	Merge	On-Ramp at Euclid	1500	4
5	Basic	Basic	East of Euclid	3000	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	7283	9548	0.76	64.8	28.1	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.862	7283	864	9600	2100	0.76	0.41	65.8	59.5	27.7	30.8	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	6392	9548	0.67	67.2	23.8	C

Segment 4: Merge

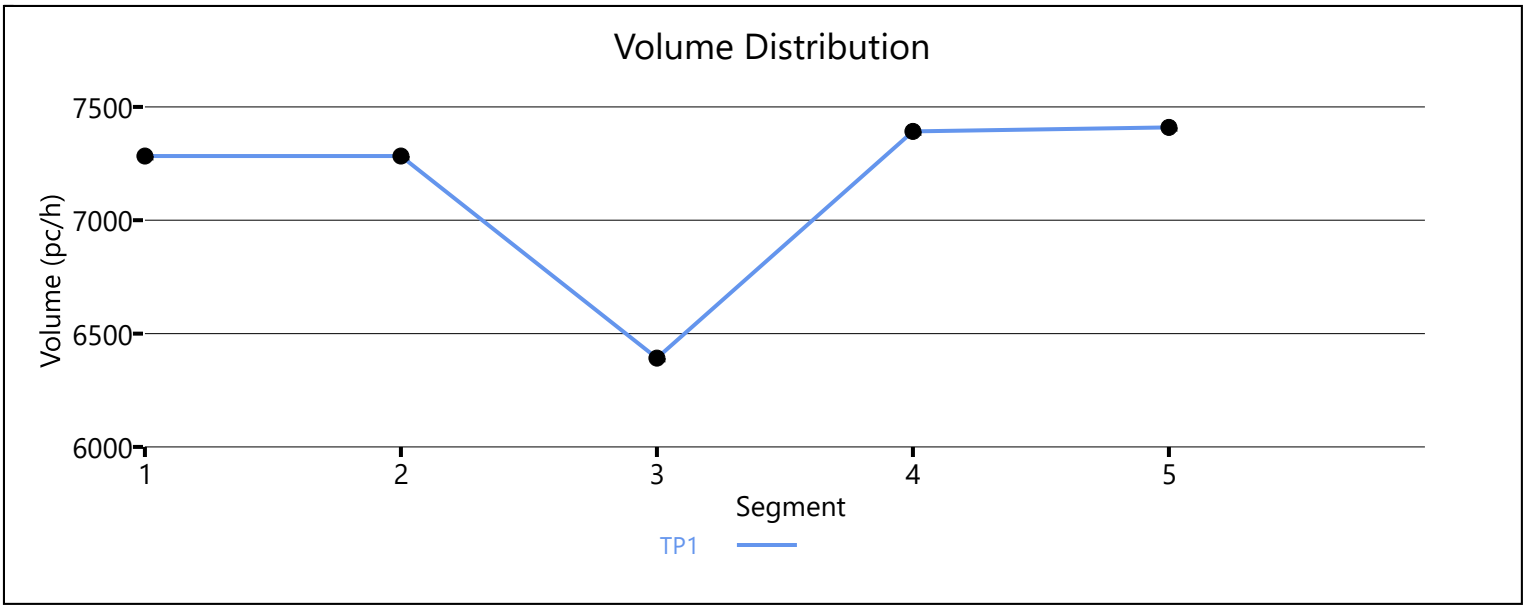
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.870	7392	1000	9600	2100	0.77	0.48	62.3	59.8	29.7	26.4	C

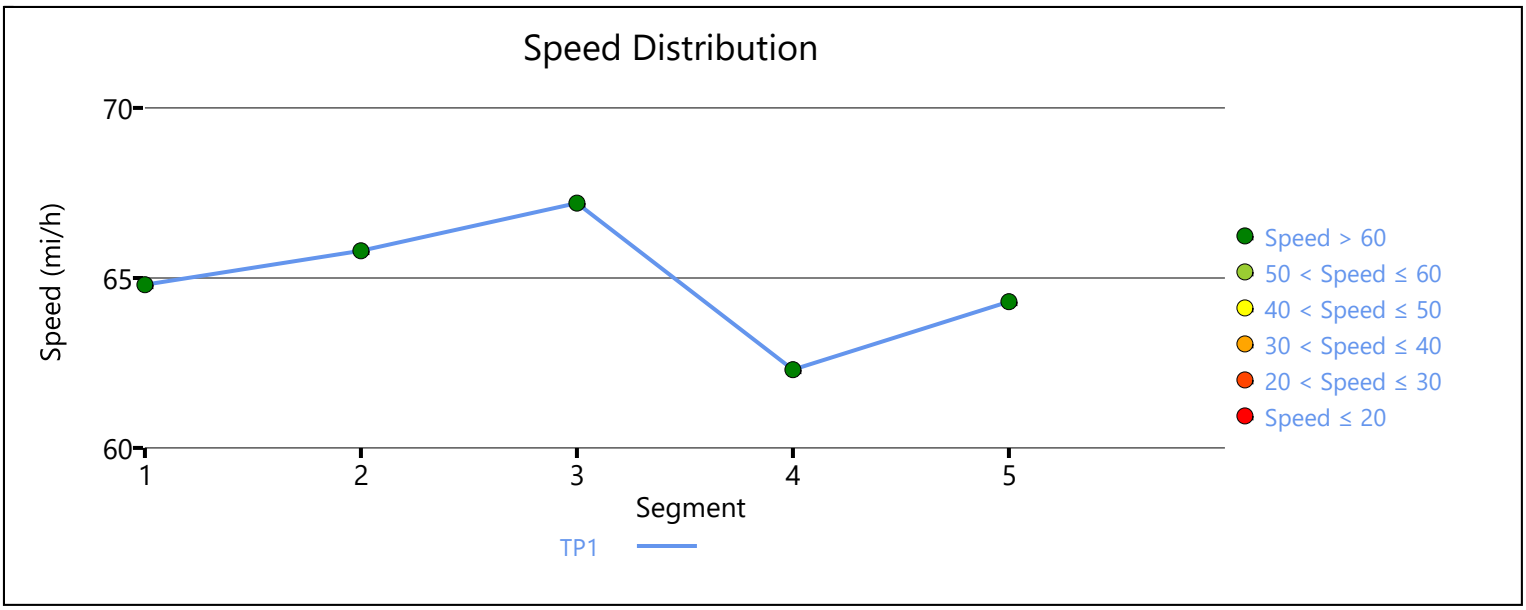
Segment 5: Basic

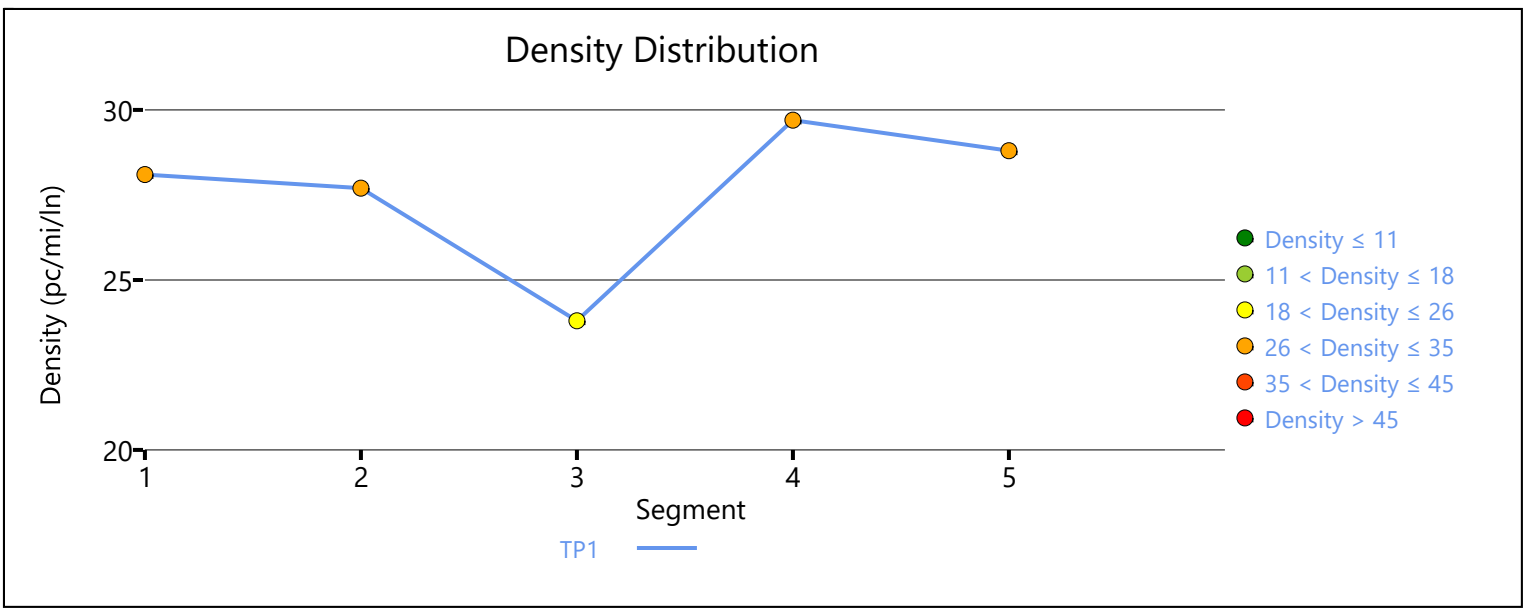
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	7410	9548	0.78	64.3	28.8	D

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	64.8	27.6	27.2	1.7	D

Facility Overall Results			
Space Mean Speed, mi/h	64.8	Density, veh/mi/ln	27.2
Average Travel Time, min	1.7	Density, pc/mi/ln	27.6







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APPENDIX 7.8:

OPENING YEAR CUMULATIVE (2022) WITH PROJECT CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2022) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-71 SB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	17
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Southbound, N of Central	4275	3
2	Diverge	Diverge	Central SB Off-Ramp	1500	3
3	Basic	Basic	Cetnral SB Off-Ramp to Loop On-Ramp	1125	3
4	Merge	Merge	Central SB Loop On-Ramp	1500	3
5	Basic	Basic	Central SB Loop On-Ramp to On-Ramp	1025	3
6	Merge	Merge	Central SB On-Ramp	1500	3
7	Basic	Basic	Southbound, Central to Pine	5500	2
8	Diverge	Diverge	Pine SB Off-Ramp	1500	2
9	Basic	Basic	Pine SB Off-Ramp to On-Ramp	2315	2
10	Merge	Merge	Pine SB On-Ramp	1500	2
11	Basic	Basic	Southbound, Pine to Euclid	4500	2
12	Diverge	Diverge	Euclid SB Off-Ramp	1500	2
13	Basic	Basic	Euclid SB Off-Ramp to Loop On-Ramp	1460	2
14	Merge	Merge	Euclid SB Loop On-Ramp	1500	2
15	Basic	Basic	Euclid SB Loop On-Ramp to On-Ramp	1200	2
16	Merge	Merge	Euclid SB On-Ramp	1500	2
17	Basic	Basic	Southbound, S of Euclid	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.914	2078	7131	0.29	67.7	10.2	A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	

1	0.92	0.92	0.914	0.909	2078	929	7200	2100	0.29	0.44	61.9	59.3	11.2	17.2	B
Segment 3: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.931		1132		7116		0.16		67.2		5.6		A
Segment 4: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.931	0.847	1357	225	7200	1900	0.19	0.12	64.0	61.3	7.1	9.9	A
Segment 5: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.914		1362		7116		0.19		67.2		6.8		A
Segment 6: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.914	0.980	1473	111	7200	2100	0.20	0.05	64.5	61.6	7.6	10.4	B
Segment 7: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.922		1468		4726		0.31		66.3		11.1		B
Segment 8: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.922	0.943	1468	219	4800	2100	0.31	0.10	61.1	61.1	12.0	15.3	B
Segment 9: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.914		1255		4718		0.27		65.9		9.5		A
Segment 10: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.914	0.943	1298	43	4800	2100	0.27	0.02	61.6	61.6	10.5	13.1	B
Segment 11: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.914		1299		4726		0.27		66.3		9.8		A
Segment 12: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**

	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.914	0.917	1299	793	4800	2100	0.27	0.38	59.7	59.7	10.9	14.2	B

Segment 13: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.931	494	4744	0.10	67.2	3.7	A

Segment 14: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.931	0.885	1061	567	4800	1900	0.22	0.30	61.4	61.4	8.6	10.3	B

Segment 15: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.899	1070	4744	0.23	67.2	8.0	A

Segment 16: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.899	0.926	1846	776	4800	2100	0.38	0.37	61.5	61.5	15.0	16.8	B

Segment 17: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.907	1853	4554	0.41	57.7	16.0	B

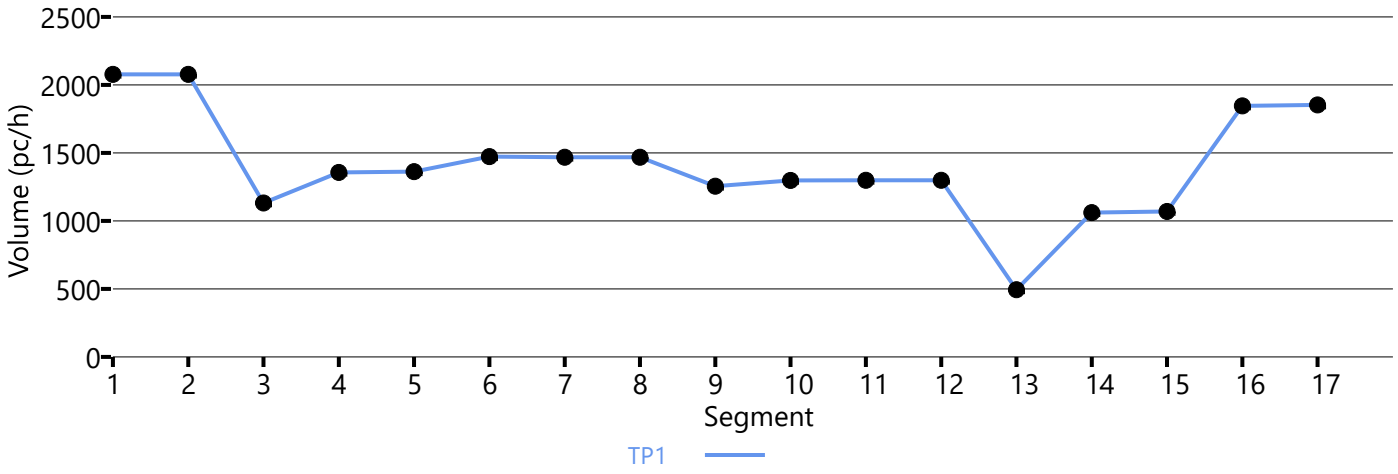
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	63.6	10.3	9.4	6.9	A

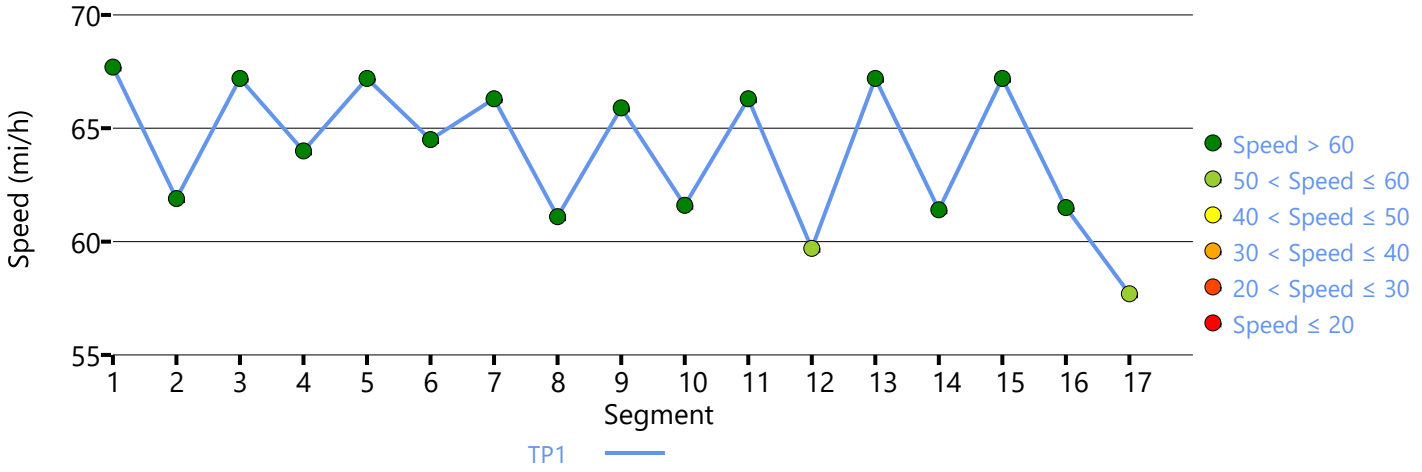
Facility Overall Results

Space Mean Speed, mi/h	63.6	Density, veh/mi/ln	9.4
Average Travel Time, min	6.9	Density, pc/mi/ln	10.3

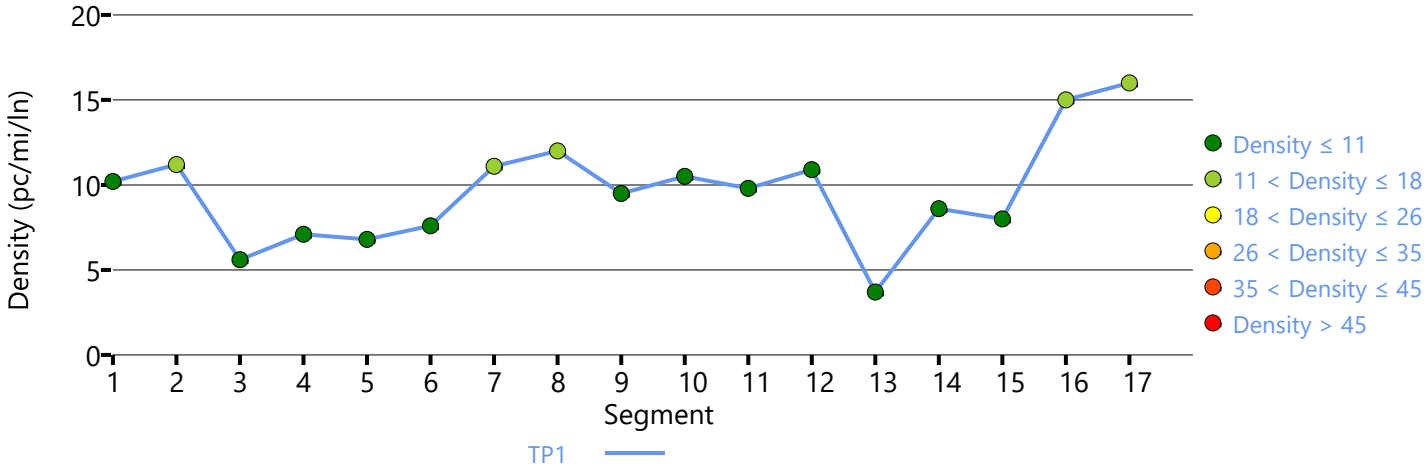
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2022) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-71 NB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	15
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Northbound, S of Euclid	5280	3
2	Diverge	Basic	Euclid NB Off-Ramp	1500	3
3	Basic	Basic	Euclid NB Off-Ramp to On-Ramp	1500	2
4	Merge	Merge	Euclid NB On-Ramp	1500	2
5	Basic	Basic	Northbound, Euclid to Pine	4500	2
6	Diverge	Diverge	Pine NB Off-Ramp	1500	2
7	Basic	Basic	Pine NB Off-Ramp to On-Ramp	2225	2
8	Merge	Basic	Pine NB On-Ramp	1500	2
9	Basic	Basic	Northbound, Pine to Central	5500	3
10	Diverge	Diverge	Central NB Off-Ramp	1500	3
11	Basic	Basic	Central NB Off-Ramp to Loop On-Ramp	1050	3
12	Merge	Merge	Central NB Loop On-Ramp	1500	3
13	Basic	Basic	Central NB Loop On-Ramp to On-Ramp	1040	3
14	Merge	Merge	Central NB On-Ramp	1500	3
15	Basic	Basic	Northbound, N of Central	4275	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.763	2046	6831	0.30	57.7	11.8	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.763	0.901	2046	796	7200	4200	0.28	0.19	70.0	-	9.7	-	A

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.680		1240		4754		0.26		67.7		9.2		A
Segment 4: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.680	0.943	2430	1190	4800	1900	0.51	0.63	60.7	60.7	20.0	19.7	B
Segment 5: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.806		2438		4736		0.51		66.8		18.2		C
Segment 6: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.806	0.952	2438	78	4800	2100	0.51	0.04	61.5	61.5	19.8	24.0	C
Segment 7: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.806		2347		4726		0.50		66.3		17.7		B
Segment 8: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.806	0.980	2865	518	4800	2100	0.49	0.25	70.0	-	16.8	-	B
Segment 9: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.833		2880		7089		0.41		66.3		14.5		B
Segment 10: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.833	0.943	2880	529	7200	2100	0.40	0.25	64.1	60.3	15.0	21.3	C
Segment 11: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.813		2337		7116		0.33		67.2		11.6		B
Segment 12: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.813	0.971	3245	908	7200	1900	0.45	0.48	62.8	60.7	17.2	19.7	B

Segment 13: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.855	3253	7116	0.46	67.2	16.1	B

Segment 14: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.855	0.935	4379	1126	7200	2100	0.61	0.54	61.9	59.9	23.6	25.9	C

Segment 15: Basic

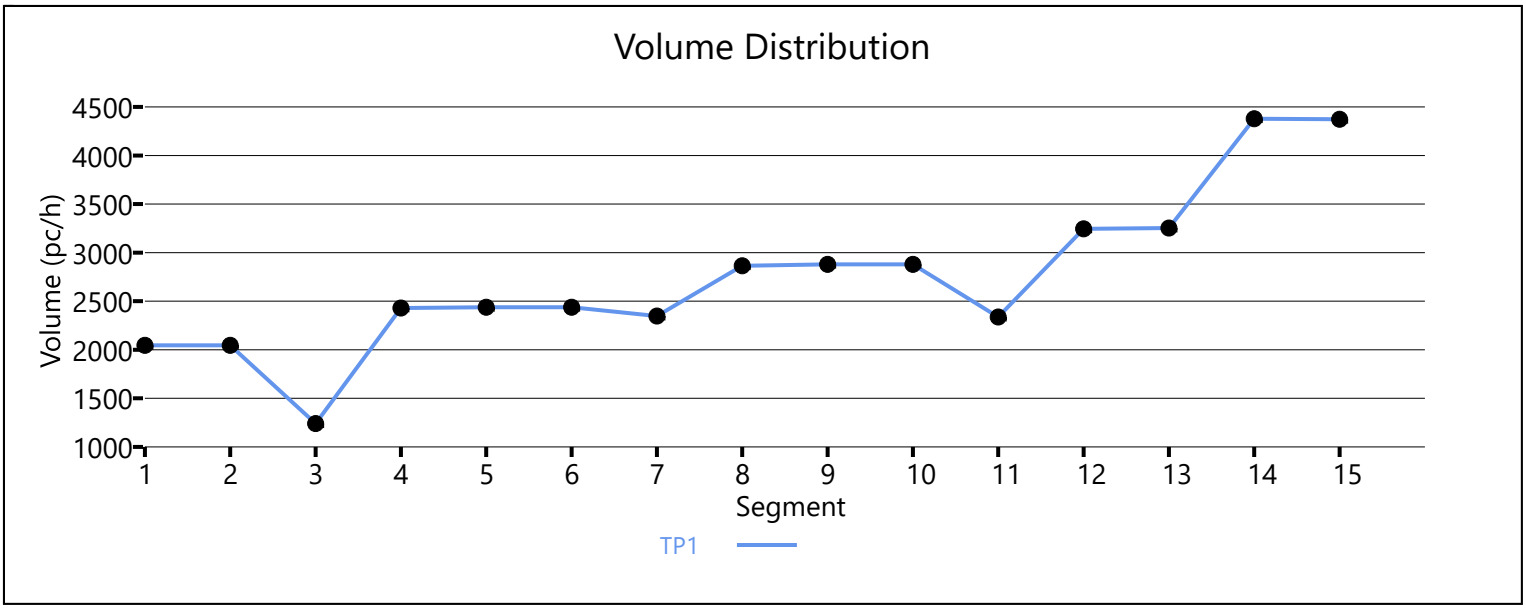
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.877	4373	7131	0.61	67.4	21.6	C

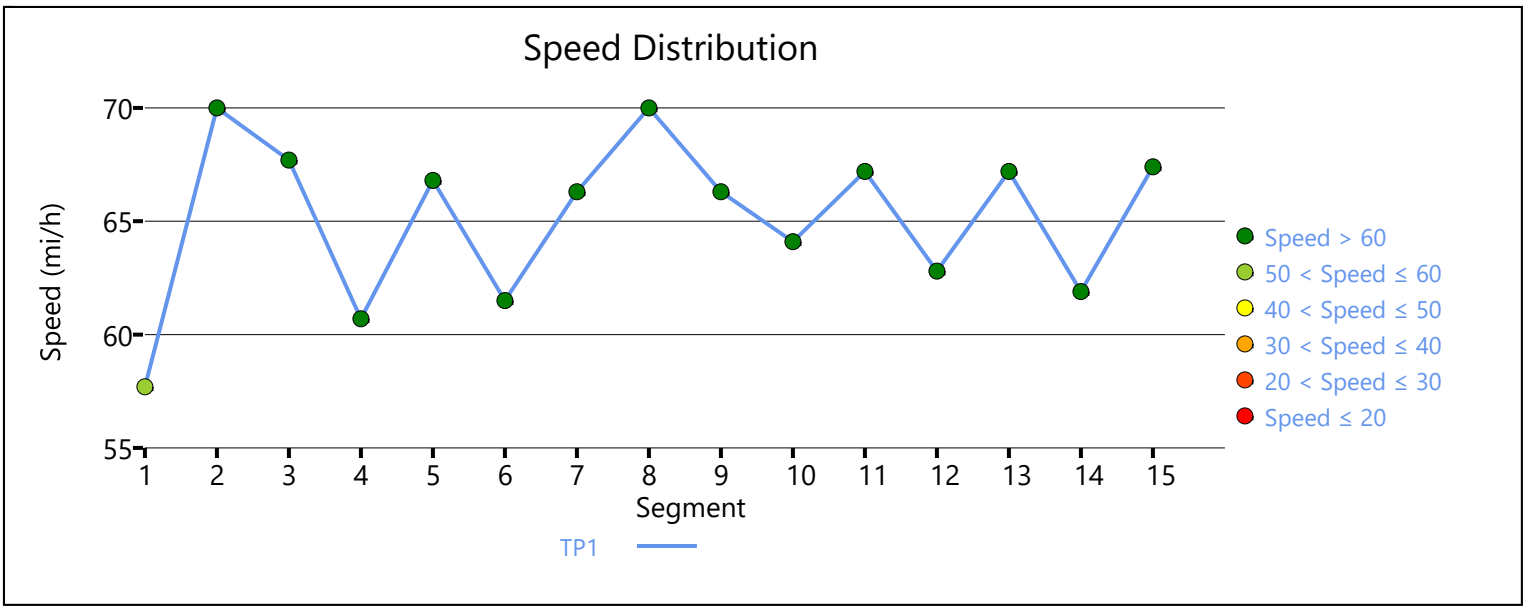
Facility Time Period Results

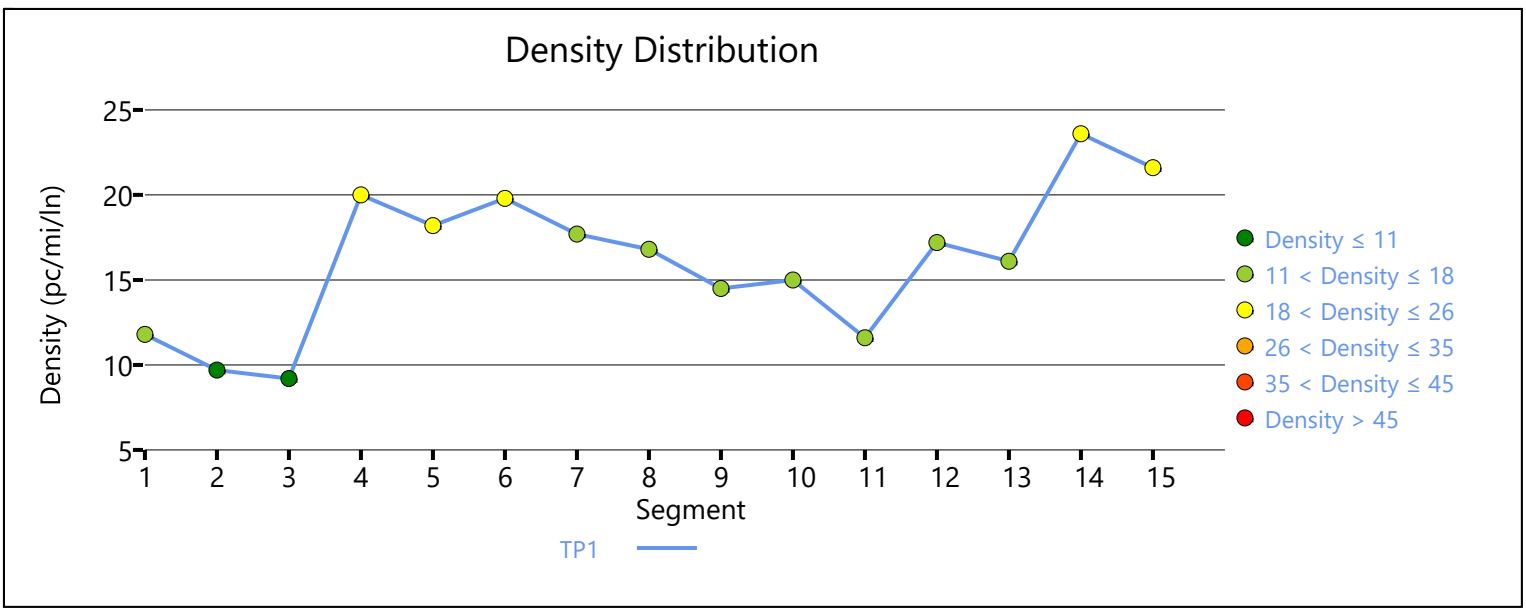
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.0	16.1	13.1	6.3	B

Facility Overall Results

Space Mean Speed, mi/h	65.0	Density, veh/mi/ln	13.1
Average Travel Time, min	6.3	Density, pc/mi/ln	16.1







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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2022) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-60 WB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Euclid	2500	4
2	Diverge	Diverge	Off-Ramp at Euclid	1500	4
3	Basic	Basic	Between	2200	4
4	Merge	Merge	On-Ramp at Euclid	1500	4
5	Basic	Basic	West of Euclid	1500	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	8881	9548	0.93	57.3	38.7	E

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.952	0.820	8881	1117	9600	2100	0.93	0.53	64.7	58.8	34.3	38.8	E

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	7763	9548	0.81	62.9	30.9	D

Segment 4: Merge

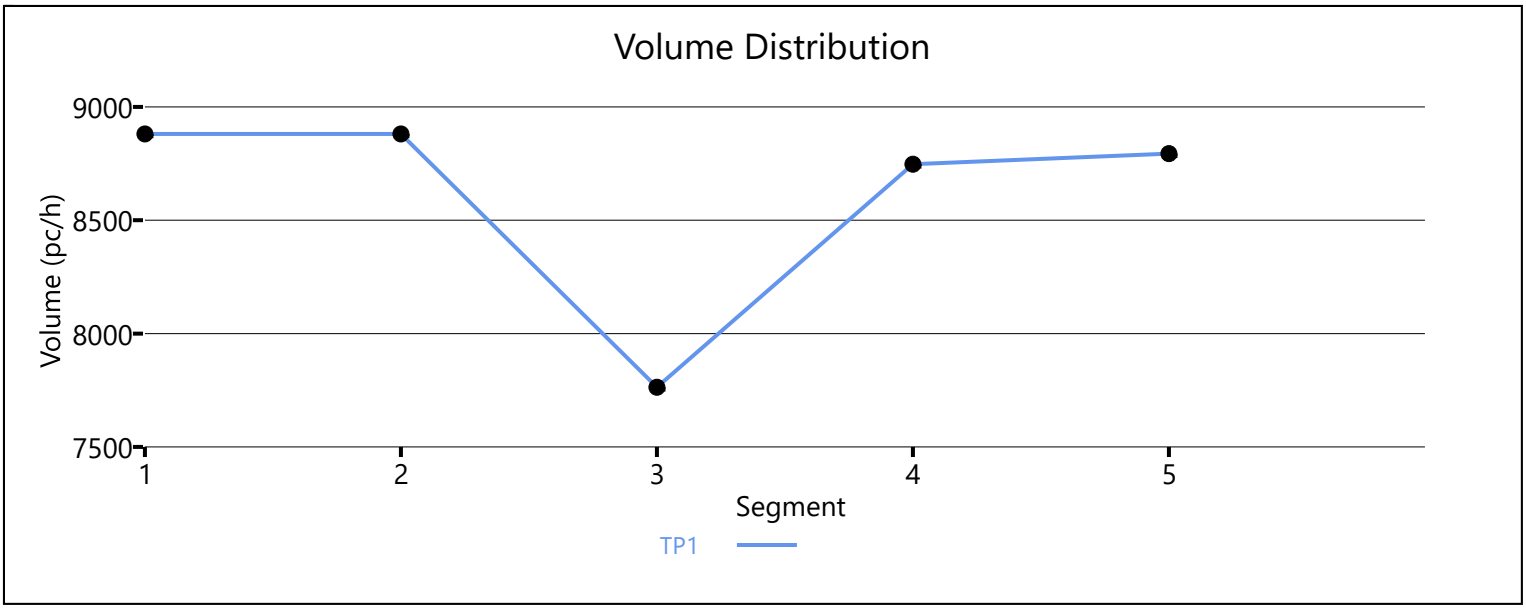
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.847	8747	984	9600	2100	0.91	0.47	60.2	57.0	36.3	30.8	D

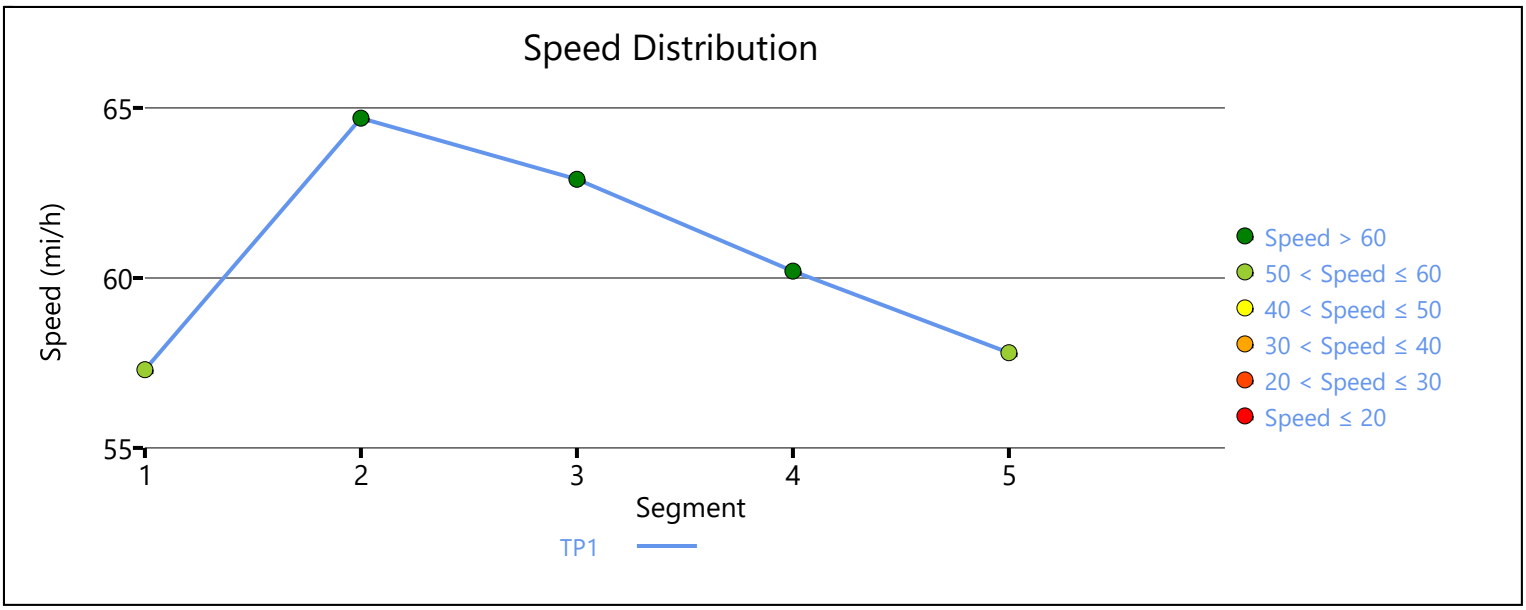
Segment 5: Basic

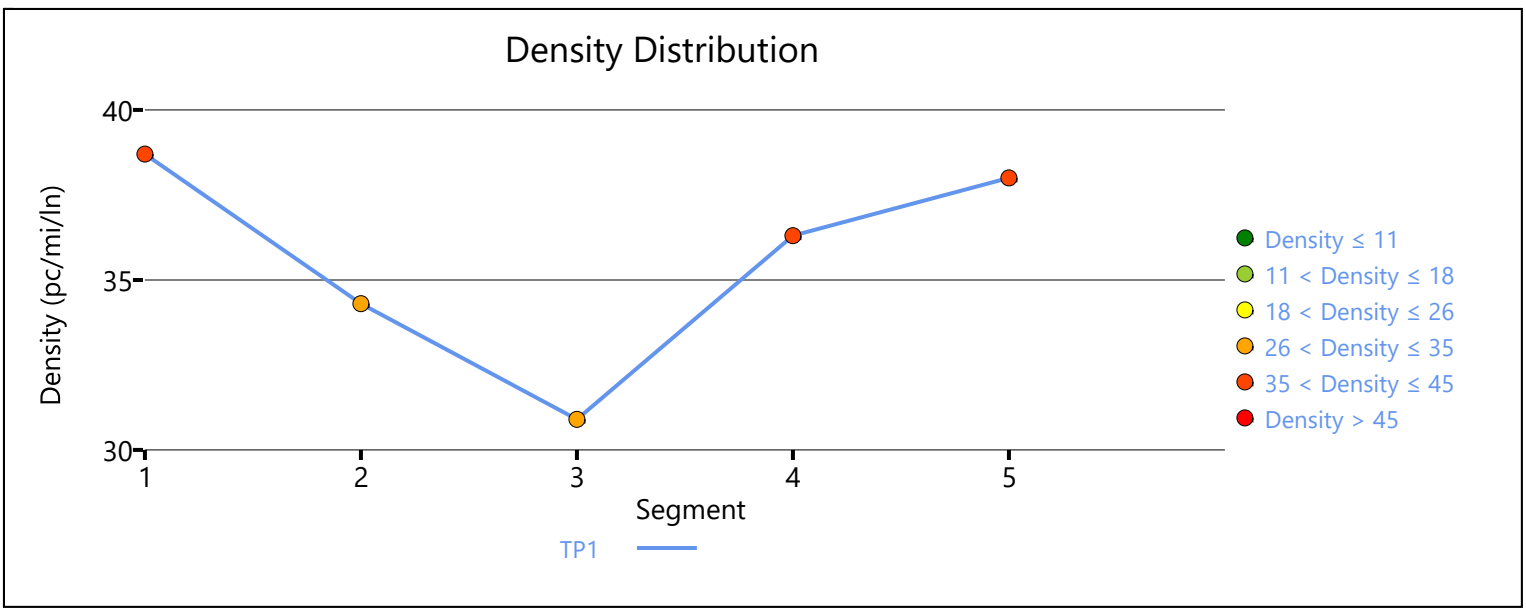
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	8794	9548	0.92	57.8	38.0	E

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	60.2	35.6	34.2	1.7	E

Facility Overall Results			
Space Mean Speed, mi/h	60.2	Density, veh/mi/ln	34.2
Average Travel Time, min	1.7	Density, pc/mi/ln	35.6







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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2022) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-60 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Euclid	1370	4
2	Diverge	Diverge	Off-Ramp at Euclid	1500	4
3	Basic	Basic	Between	2100	4
4	Merge	Merge	On-Ramp at Euclid	1500	4
5	Basic	Basic	East of Euclid	3000	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	8374	9548	0.88	60.1	34.8	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.840	8374	876	9600	2100	0.87	0.42	65.3	59.4	32.1	34.9	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	7471	9548	0.78	64.1	29.1	D

Segment 4: Merge

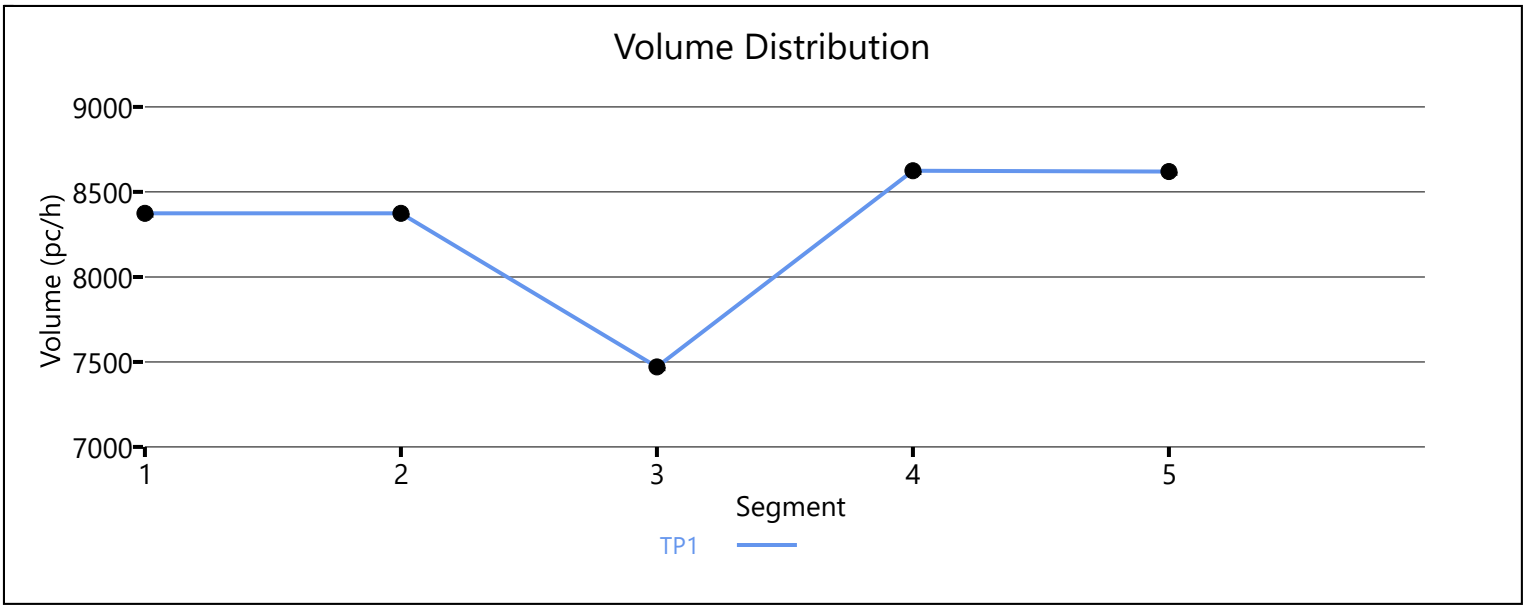
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.847	8625	1154	9600	2100	0.90	0.55	60.1	56.7	35.9	30.9	D

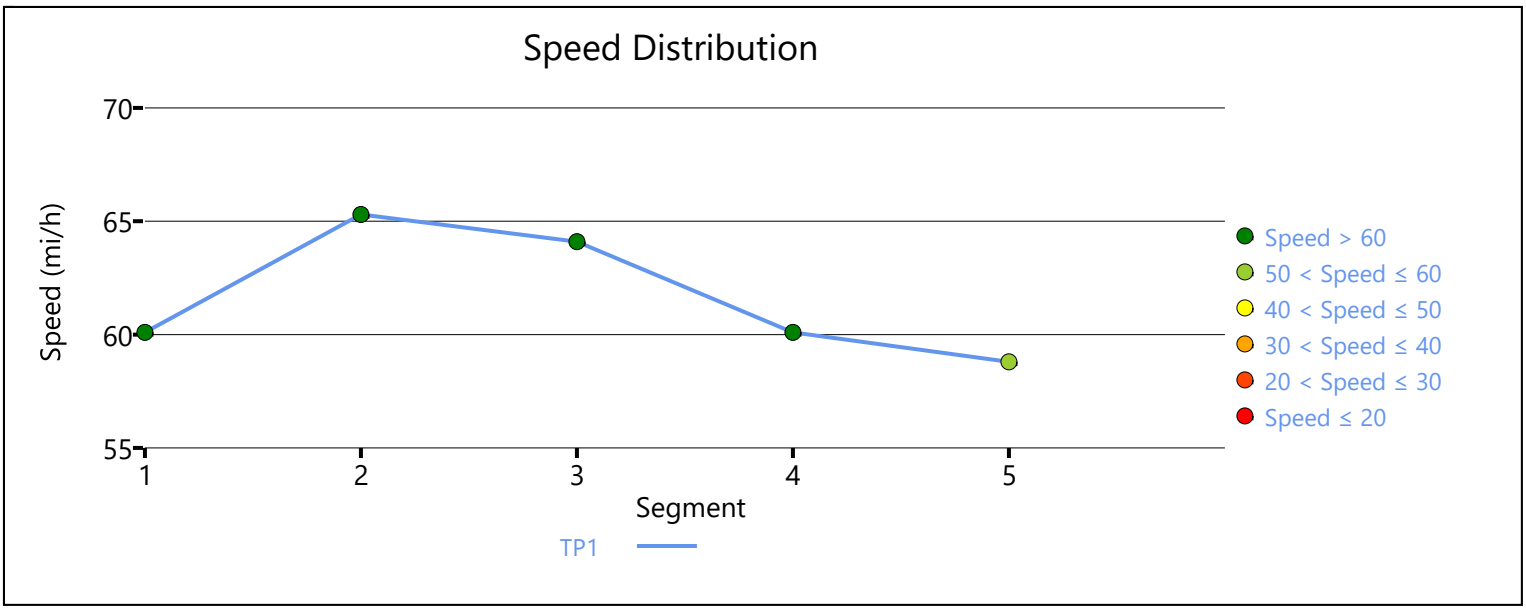
Segment 5: Basic

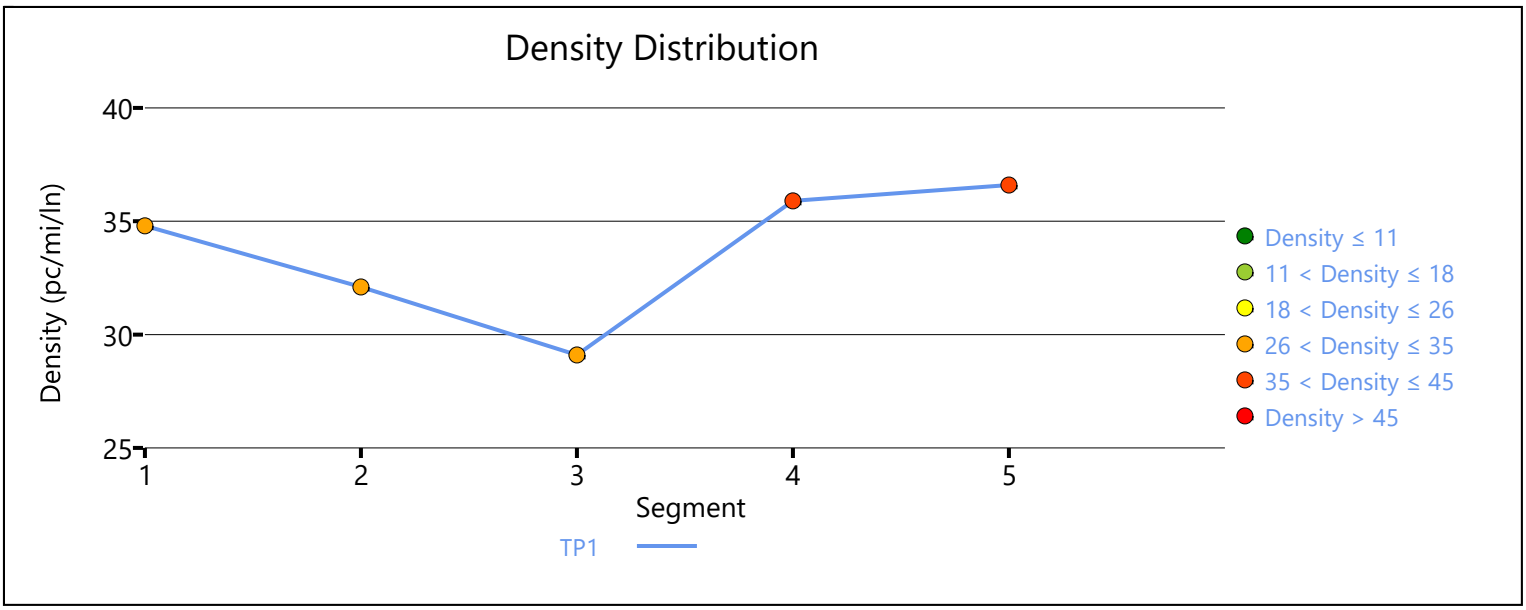
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	8620	9548	0.90	58.8	36.6	E

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	61.2	33.9	33.4	1.8	D

Facility Overall Results			
Space Mean Speed, mi/h	61.2	Density, veh/mi/ln	33.4
Average Travel Time, min	1.8	Density, pc/mi/ln	33.9







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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2022) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-71 SB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	17
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Southbound, N of Central	4275	3
2	Diverge	Diverge	Central SB Off-Ramp	1500	3
3	Basic	Basic	Cetnral SB Off-Ramp to Loop On-Ramp	1125	3
4	Merge	Merge	Central SB Loop On-Ramp	1500	3
5	Basic	Basic	Central SB Loop On-Ramp to On-Ramp	1025	3
6	Merge	Merge	Central SB On-Ramp	1500	3
7	Basic	Basic	Southbound, Central to Pine	5500	2
8	Diverge	Diverge	Pine SB Off-Ramp	1500	2
9	Basic	Basic	Pine SB Off-Ramp to On-Ramp	2315	2
10	Merge	Merge	Pine SB On-Ramp	1500	2
11	Basic	Basic	Southbound, Pine to Euclid	4500	2
12	Diverge	Diverge	Euclid SB Off-Ramp	1500	2
13	Basic	Basic	Euclid SB Off-Ramp to Loop On-Ramp	1460	2
14	Merge	Merge	Euclid SB Loop On-Ramp	1500	2
15	Basic	Basic	Euclid SB Loop On-Ramp to On-Ramp	1200	2
16	Merge	Merge	Euclid SB On-Ramp	1500	2
17	Basic	Basic	Southbound, S of Euclid	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.939	3969	7131	0.56	67.7	19.5	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	

1	0.92	0.92	0.939	0.952	3969	1928	7200	2100	0.55	0.92	60.3	56.8	21.9	29.3	D
Segment 3: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.939		2014		7116		0.28		67.2		10.0		A
Segment 4: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.939	0.952	2328	314	7200	1900	0.32	0.17	63.6	61.1	12.2	14.6	B
Segment 5: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.939		2332		7116		0.33		67.2		11.6		B
Segment 6: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.939	0.901	2412	80	7200	2100	0.34	0.04	64.0	61.4	12.6	14.6	B
Segment 7: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.939		2409		4726		0.51		66.3		18.2		C
Segment 8: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.939	0.962	2409	1198	4800	2100	0.50	0.57	58.6	58.6	20.6	23.4	C
Segment 9: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.922		1204		4718		0.26		65.9		9.1		A
Segment 10: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.922	0.926	1267	63	4800	2100	0.26	0.03	61.6	61.6	10.3	12.9	B
Segment 11: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.922		1267		4726		0.27		66.3		9.6		A
Segment 12: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**

	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.922	0.952	1267	878	4800	2100	0.26	0.42	59.4	59.4	10.7	13.9	B

Segment 13: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.892	373	4744	0.08	67.2	2.8	A

Segment 14: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.892	0.935	1200	827	4800	1900	0.25	0.44	61.4	61.4	9.8	11.3	B

Segment 15: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.914	1209	4744	0.25	67.2	9.0	A

Segment 16: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.914	0.971	1981	772	4800	2100	0.41	0.37	61.3	61.3	16.2	17.8	B

Segment 17: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.931	1993	4554	0.44	57.7	17.3	B

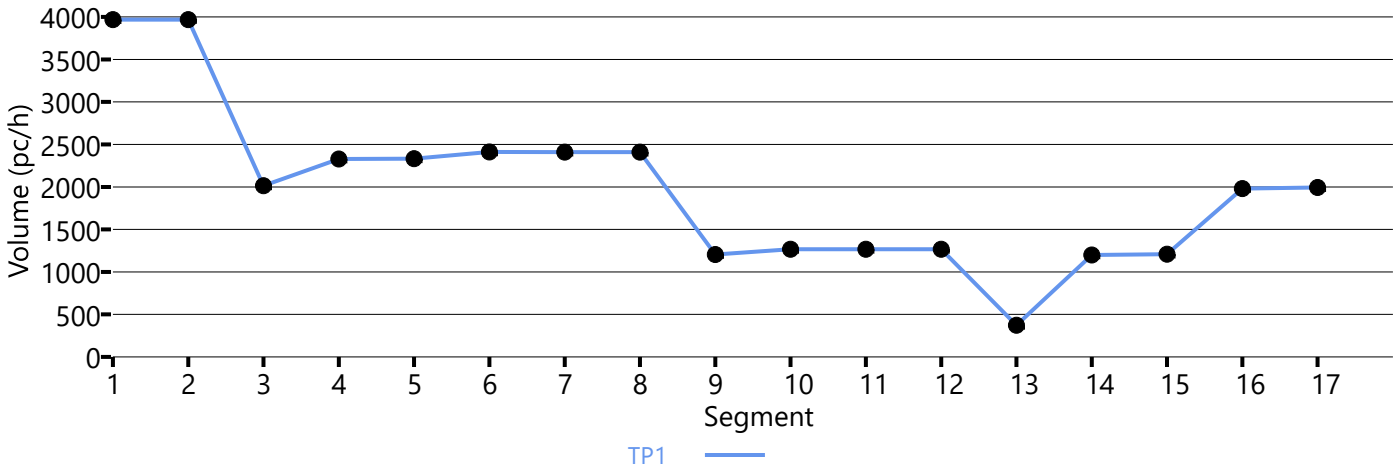
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	63.8	14.4	13.5	6.9	B

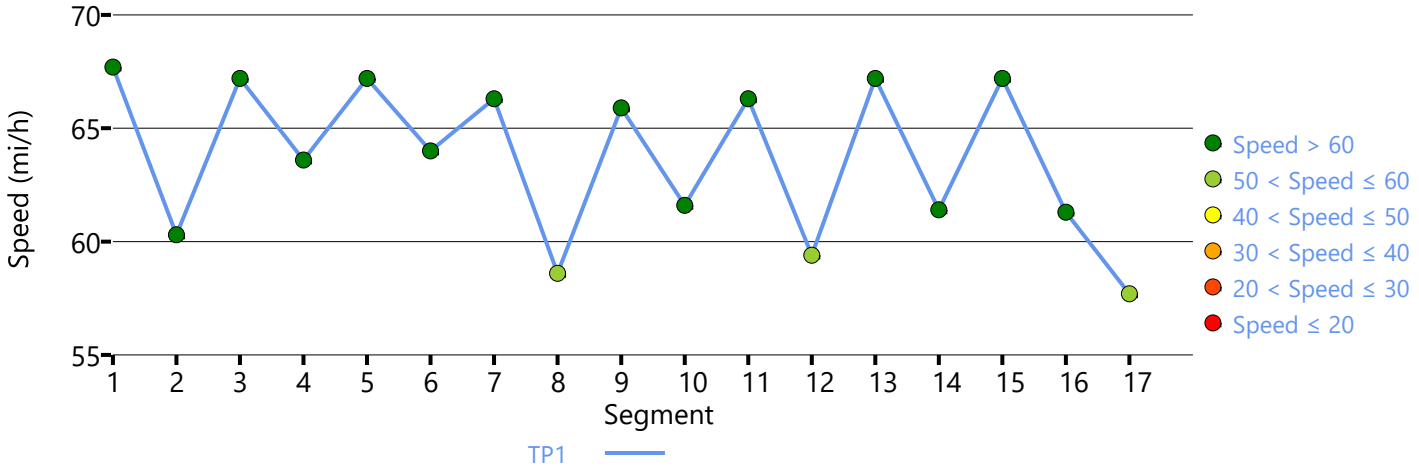
Facility Overall Results

Space Mean Speed, mi/h	63.8	Density, veh/mi/ln	13.5
Average Travel Time, min	6.9	Density, pc/mi/ln	14.4

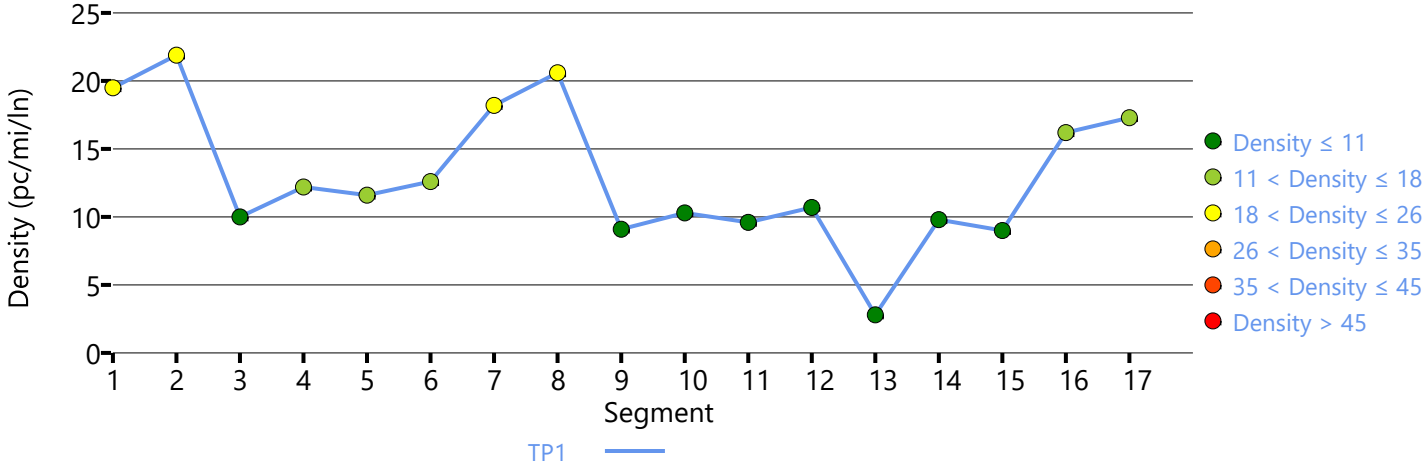
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2022) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-71 NB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	15
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Northbound, S of Euclid	5280	3
2	Diverge	Basic	Euclid NB Off-Ramp	1500	3
3	Basic	Basic	Euclid NB Off-Ramp to On-Ramp	1500	2
4	Merge	Merge	Euclid NB On-Ramp	1500	2
5	Basic	Basic	Northbound, Euclid to Pine	4500	2
6	Diverge	Diverge	Pine NB Off-Ramp	1500	2
7	Basic	Basic	Pine NB Off-Ramp to On-Ramp	2225	2
8	Merge	Basic	Pine NB On-Ramp	1500	2
9	Basic	Basic	Northbound, Pine to Central	5500	3
10	Diverge	Diverge	Central NB Off-Ramp	1500	3
11	Basic	Basic	Central NB Off-Ramp to Loop On-Ramp	1050	3
12	Merge	Merge	Central NB Loop On-Ramp	1500	3
13	Basic	Basic	Central NB Loop On-Ramp to On-Ramp	1040	3
14	Merge	Merge	Central NB On-Ramp	1500	3
15	Basic	Basic	Northbound, N of Central	4275	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.877	3527	6831	0.52	57.7	20.4	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.877	0.943	3527	1180	7207	4200	0.49	0.28	70.0	-	16.8	-	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.840		2358		4754		0.50		67.7		17.4		B
Segment 4: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.840	0.962	2929	571	4800	1900	0.61	0.30	59.9	59.9	24.4	23.9	C
Segment 5: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.862		2934		4736		0.62		66.5		22.1		C
Segment 6: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.862	0.952	2934	135	4800	2100	0.61	0.06	61.3	61.3	23.9	28.2	D
Segment 7: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.862		2785		4726		0.59		66.3		21.0		C
Segment 8: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.862	0.971	3168	383	4800	2100	0.58	0.18	69.6	-	20.0	-	C
Segment 9: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.877		3162		7089		0.45		66.3		15.9		B
Segment 10: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.877	0.909	3162	593	7200	2100	0.44	0.28	64.1	60.2	16.4	22.9	C
Segment 11: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.870		2567		7116		0.36		67.2		12.7		B
Segment 12: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.870	0.971	3066	499	7200	1900	0.43	0.26	63.2	60.9	16.2	17.8	B

Segment 13: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.885	3072	7116	0.43	67.2	15.2	B

Segment 14: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.885	0.952	3762	690	7200	2100	0.52	0.33	62.8	60.8	20.0	21.9	C

Segment 15: Basic

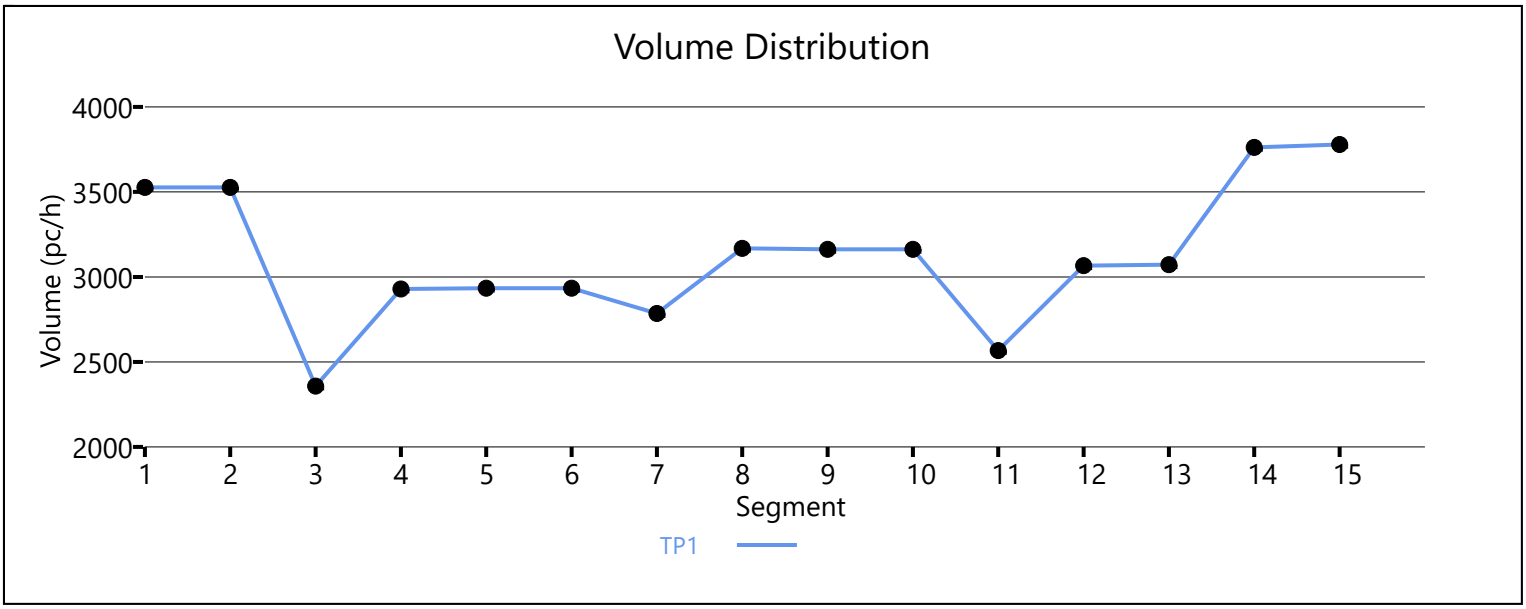
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.893	3779	7131	0.53	67.7	18.6	C

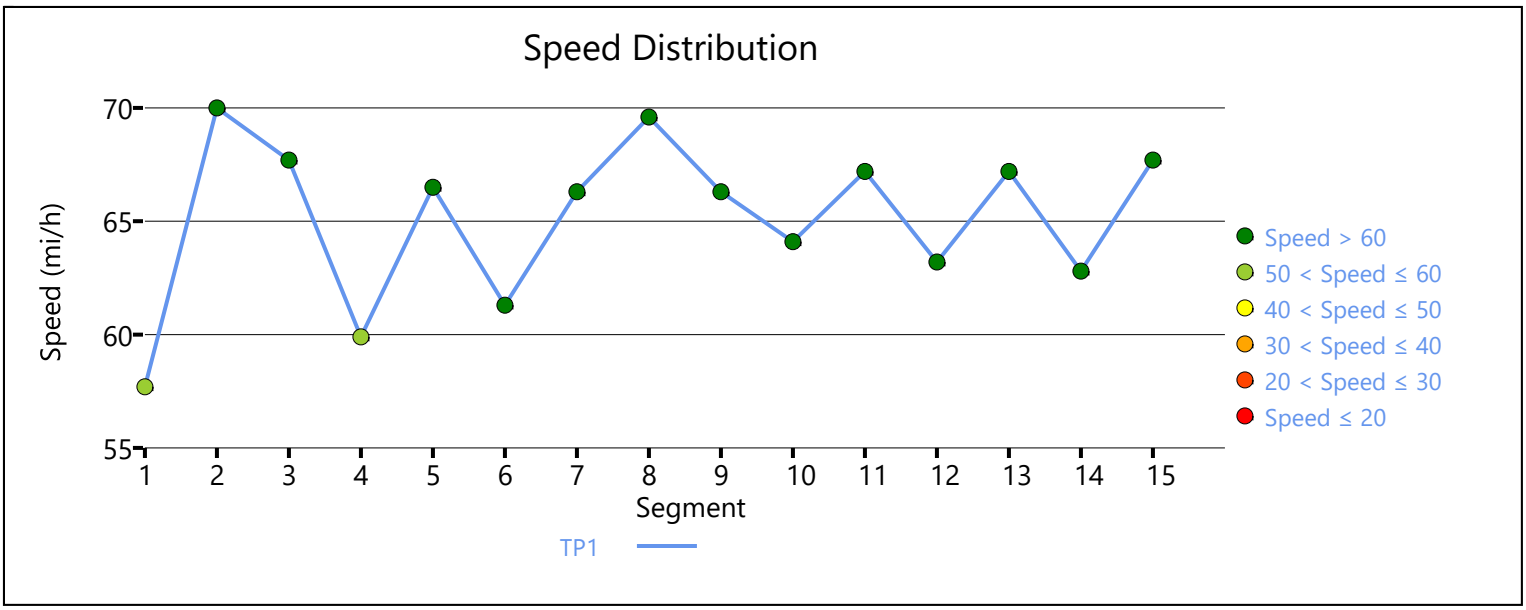
Facility Time Period Results

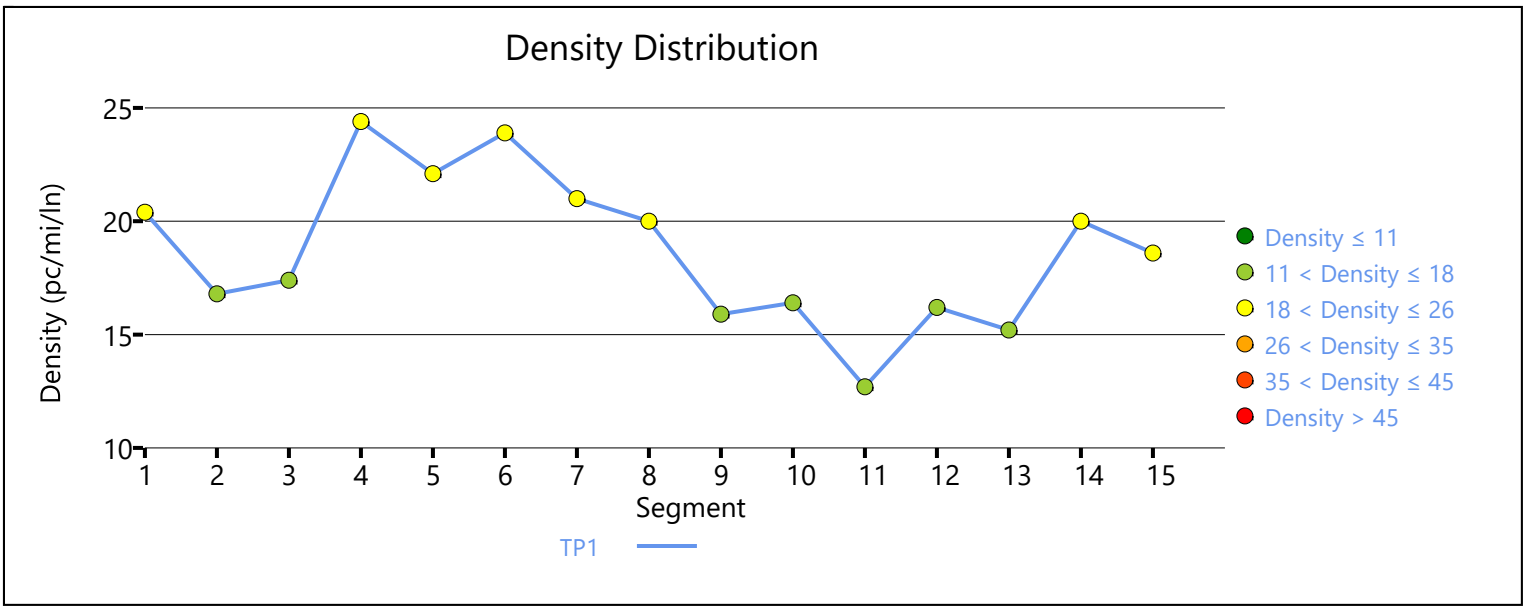
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	64.5	18.7	16.3	6.3	C

Facility Overall Results

Space Mean Speed, mi/h	64.5	Density, veh/mi/ln	16.3
Average Travel Time, min	6.3	Density, pc/mi/ln	18.7







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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2022) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-71 NB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	15
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Northbound, S of Euclid	5280	3
2	Diverge	Basic	Euclid NB Off-Ramp	1500	3
3	Basic	Basic	Euclid NB Off-Ramp to On-Ramp	1500	2
4	Merge	Merge	Euclid NB On-Ramp	1500	2
5	Basic	Basic	Northbound, Euclid to Pine	4500	2
6	Diverge	Diverge	Pine NB Off-Ramp	1500	2
7	Basic	Basic	Pine NB Off-Ramp to On-Ramp	2225	2
8	Merge	Basic	Pine NB On-Ramp	1500	2
9	Basic	Basic	Northbound, Pine to Central	5500	3
10	Diverge	Diverge	Central NB Off-Ramp	1500	3
11	Basic	Basic	Central NB Off-Ramp to Loop On-Ramp	1050	3
12	Merge	Merge	Central NB Loop On-Ramp	1500	3
13	Basic	Basic	Central NB Loop On-Ramp to On-Ramp	1040	3
14	Merge	Merge	Central NB On-Ramp	1500	3
15	Basic	Basic	Northbound, N of Central	4275	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.877	3546	6831	0.52	57.7	20.5	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.877	0.943	3546	1198	7207	4200	0.49	0.29	70.0	-	16.9	-	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.840		2358		4754		0.50		67.7		17.4		B
Segment 4: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.840	0.962	2929	571	4800	1900	0.61	0.30	59.9	59.9	24.4	23.9	C
Segment 5: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.862		2934		4736		0.62		66.5		22.1		C
Segment 6: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.862	0.952	2934	135	4800	2100	0.61	0.06	61.3	61.3	23.9	28.2	D
Segment 7: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.862		2785		4726		0.59		66.3		21.0		C
Segment 8: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.862	0.971	3168	383	4800	2100	0.58	0.18	69.6	-	20.0	-	C
Segment 9: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.877		3162		7089		0.45		66.3		15.9		B
Segment 10: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.877	0.909	3162	593	7200	2100	0.44	0.28	64.1	60.2	16.4	22.9	C
Segment 11: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.870		2567		7116		0.36		67.2		12.7		B
Segment 12: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.870	0.971	3066	499	7200	1900	0.43	0.26	63.2	60.9	16.2	17.8	B

Segment 13: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.885	3072	7116	0.43	67.2	15.2	B

Segment 14: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.885	0.943	3826	754	7200	2100	0.53	0.36	62.8	60.8	20.3	22.3	C

Segment 15: Basic

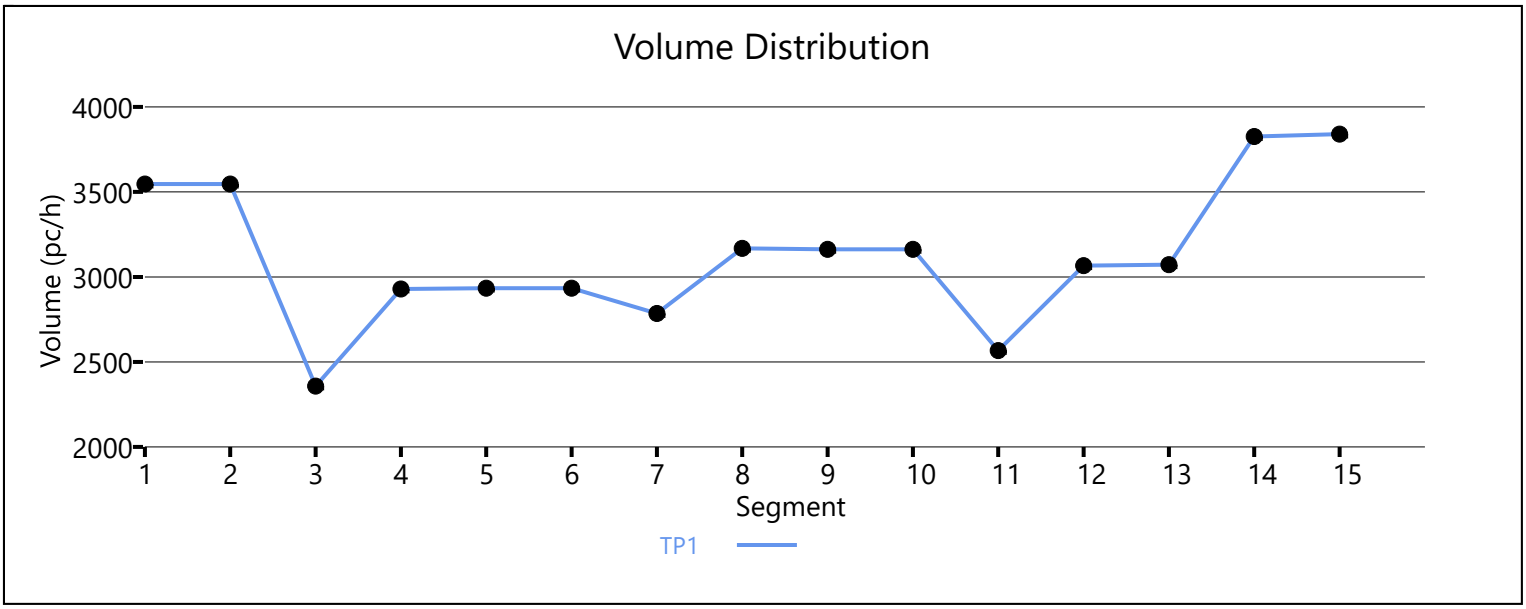
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.893	3840	7131	0.54	67.7	18.9	C

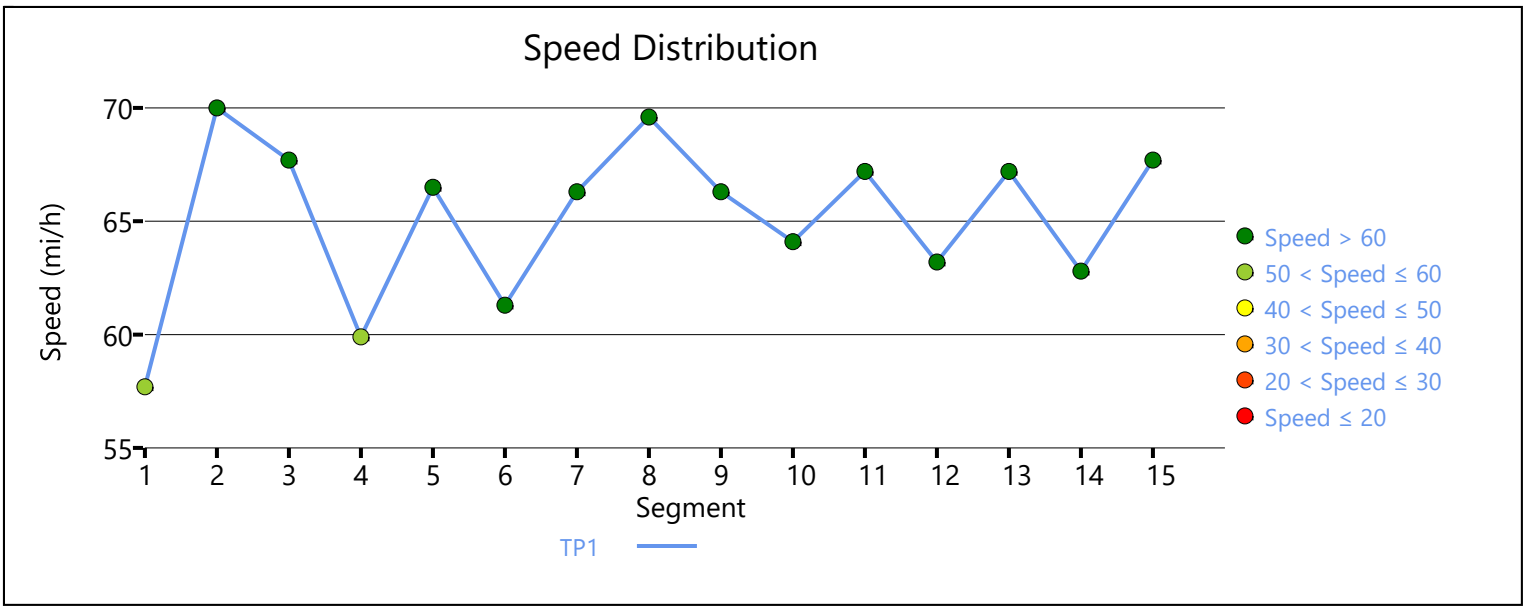
Facility Time Period Results

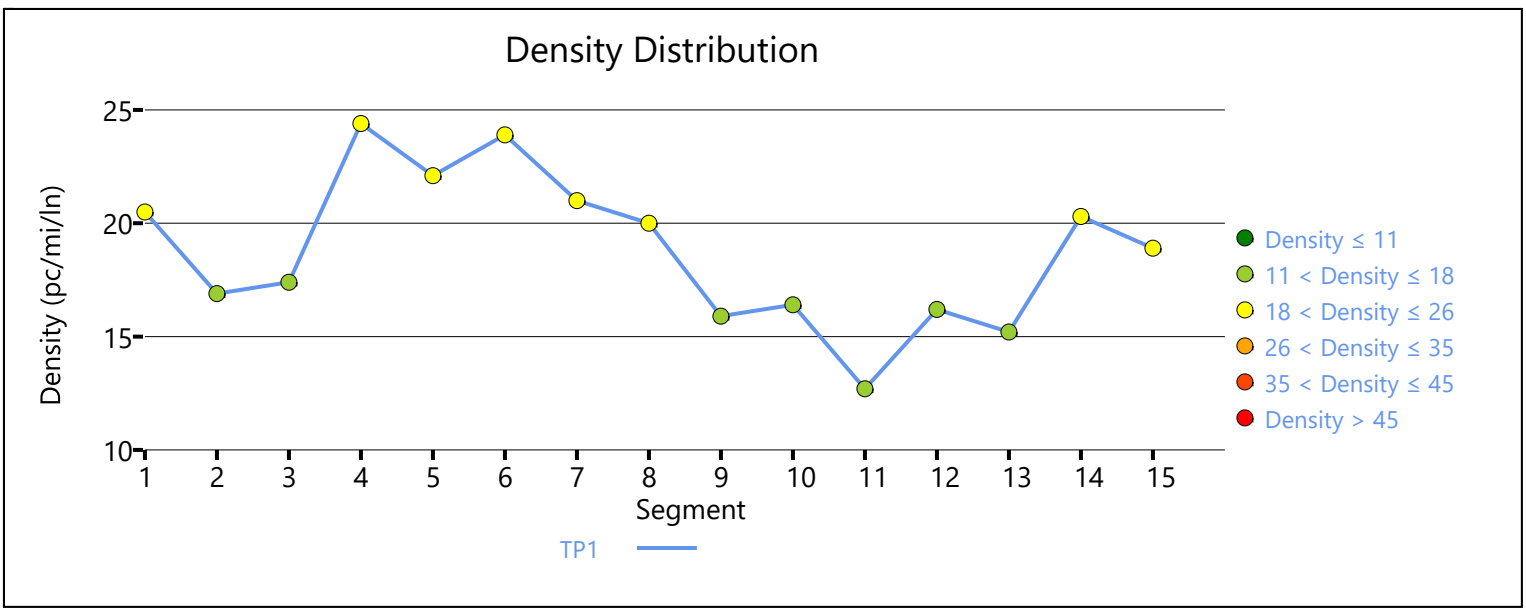
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	64.5	18.8	16.4	6.3	C

Facility Overall Results

Space Mean Speed, mi/h	64.5	Density, veh/mi/ln	16.4
Average Travel Time, min	6.3	Density, pc/mi/ln	18.8







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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2022) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-60 WB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Euclid	2500	4
2	Diverge	Diverge	Off-Ramp at Euclid	1500	4
3	Basic	Basic	Between	2200	4
4	Merge	Merge	On-Ramp at Euclid	1500	4
5	Basic	Basic	West of Euclid	1500	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	8696	9548	0.91	58.4	37.2	E

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.870	8696	1117	9600	2100	0.91	0.53	64.8	58.8	33.5	38.1	E

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	7614	9548	0.80	63.5	30.0	D

Segment 4: Merge

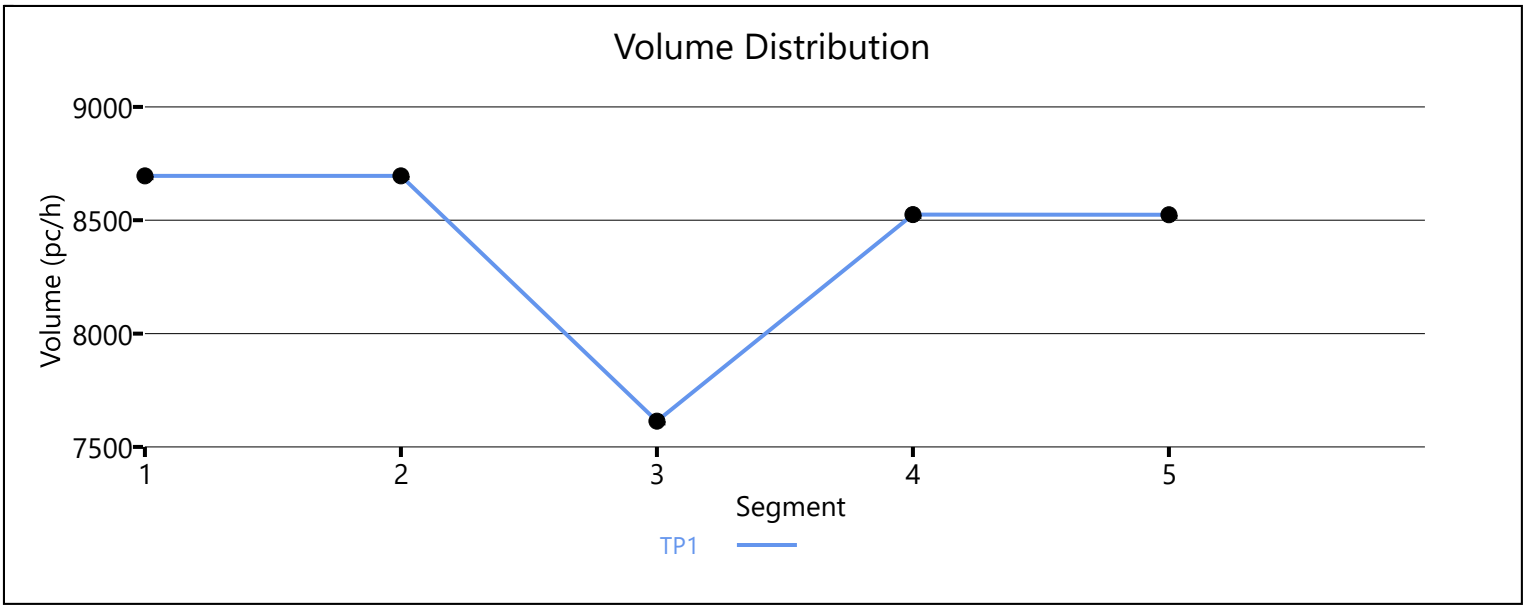
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.885	8525	911	9600	2100	0.89	0.43	60.8	57.8	35.1	29.8	D

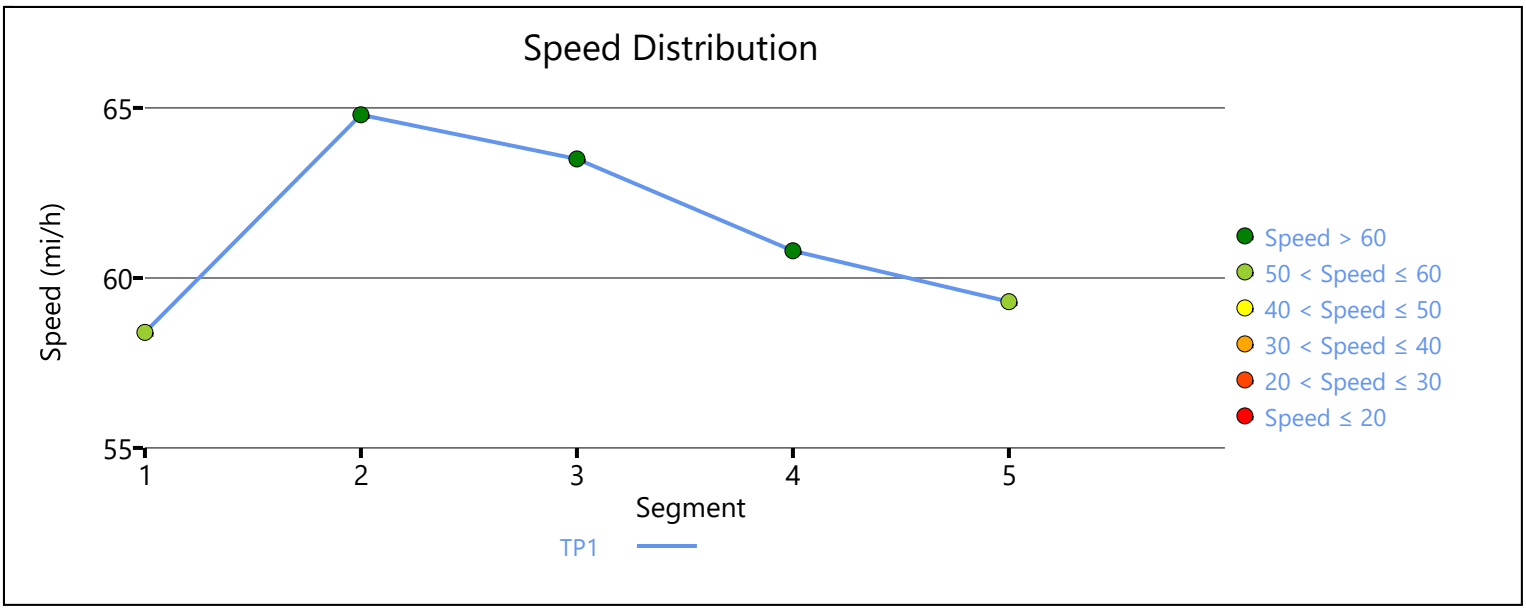
Segment 5: Basic

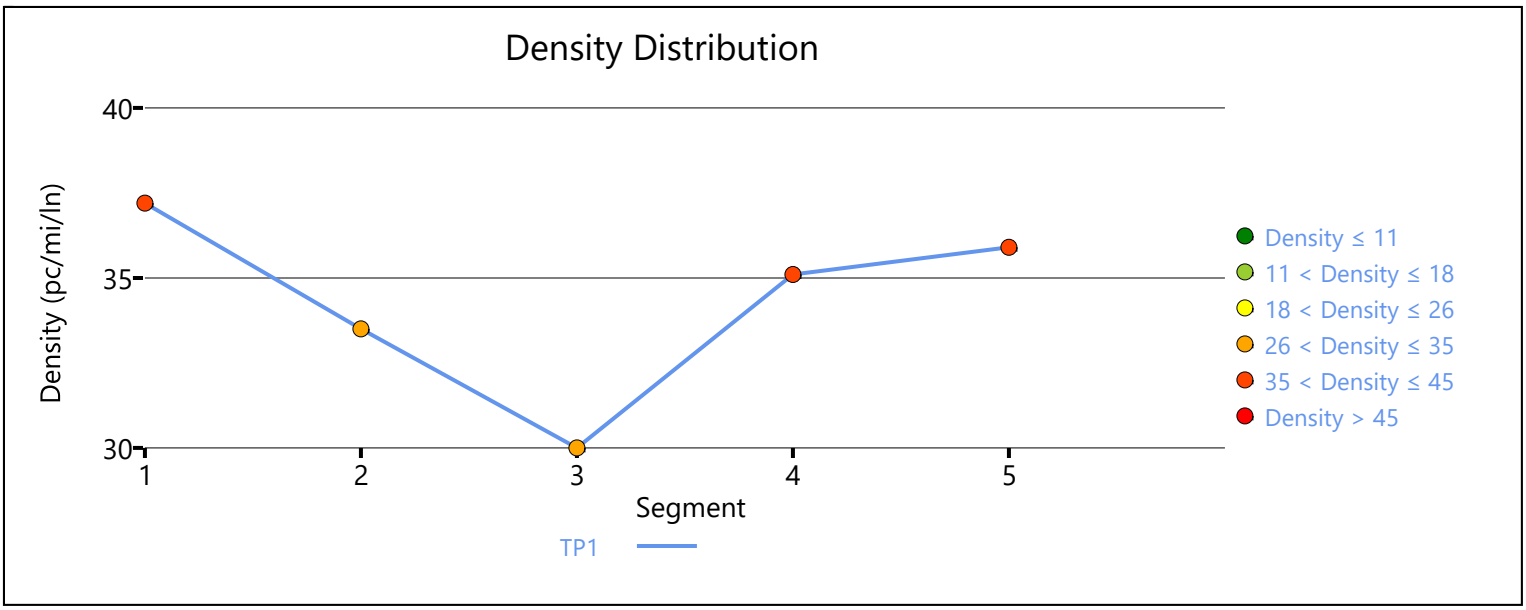
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	8524	9548	0.89	59.3	35.9	E

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	61.0	34.3	33.1	1.7	D

Facility Overall Results			
Space Mean Speed, mi/h	61.0	Density, veh/mi/ln	33.1
Average Travel Time, min	1.7	Density, pc/mi/ln	34.3







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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/01/19
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2022) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-60 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Euclid	1370	4
2	Diverge	Diverge	Off-Ramp at Euclid	1500	4
3	Basic	Basic	Between	2100	4
4	Merge	Merge	On-Ramp at Euclid	1500	4
5	Basic	Basic	East of Euclid	3000	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	7285	9548	0.76	64.8	28.1	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.862	7285	866	9600	2100	0.76	0.41	65.8	59.5	27.7	30.8	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	6392	9548	0.67	67.2	23.8	C

Segment 4: Merge

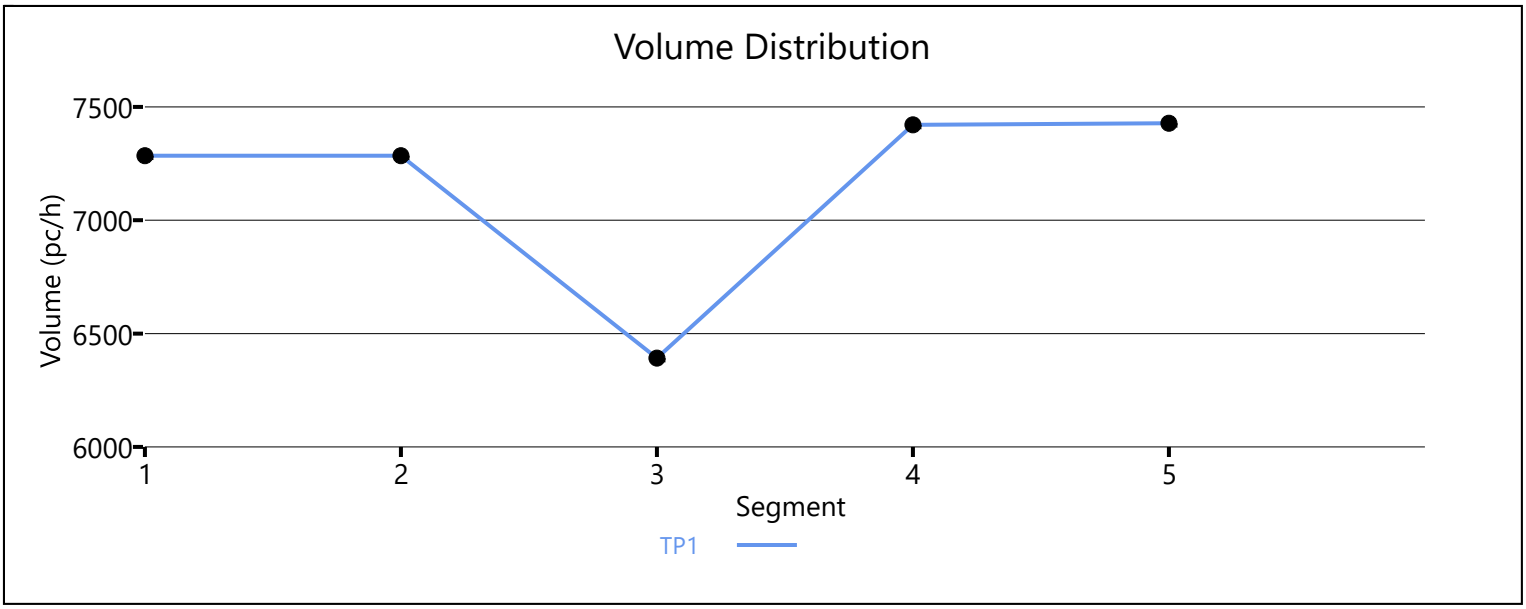
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.862	7421	1029	9600	2100	0.77	0.49	62.3	59.7	29.8	26.6	C

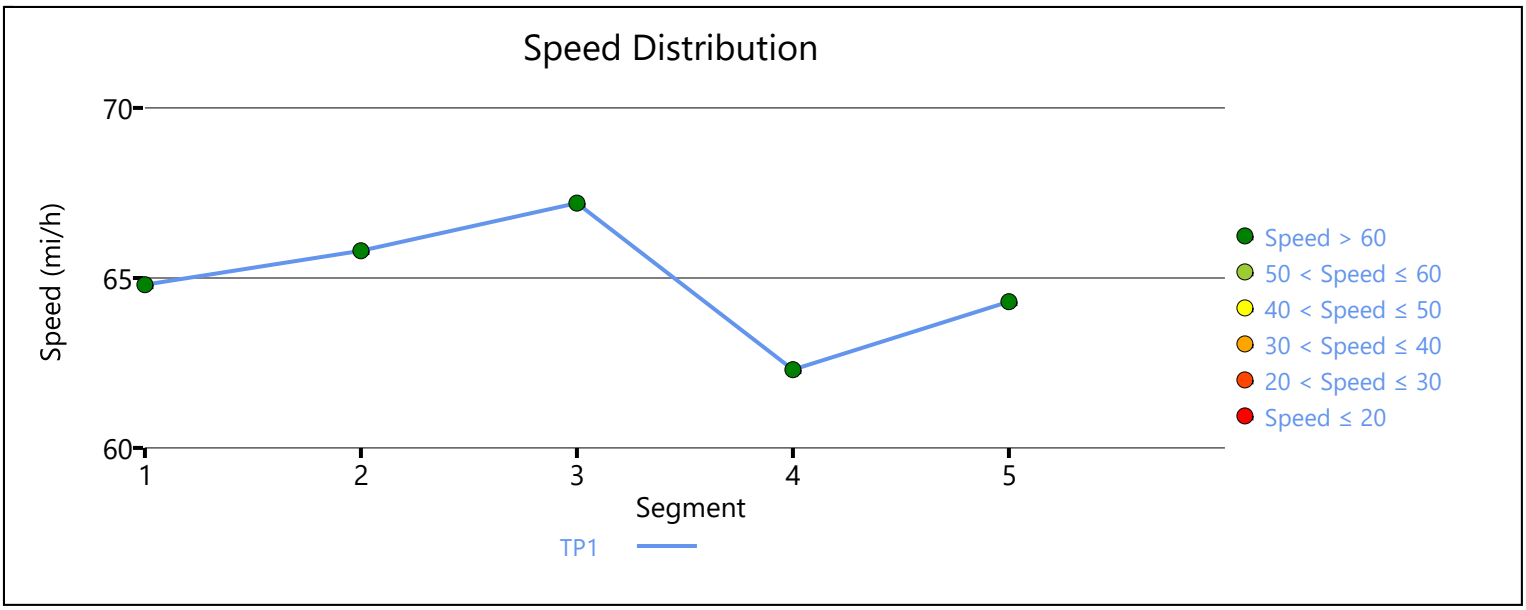
Segment 5: Basic

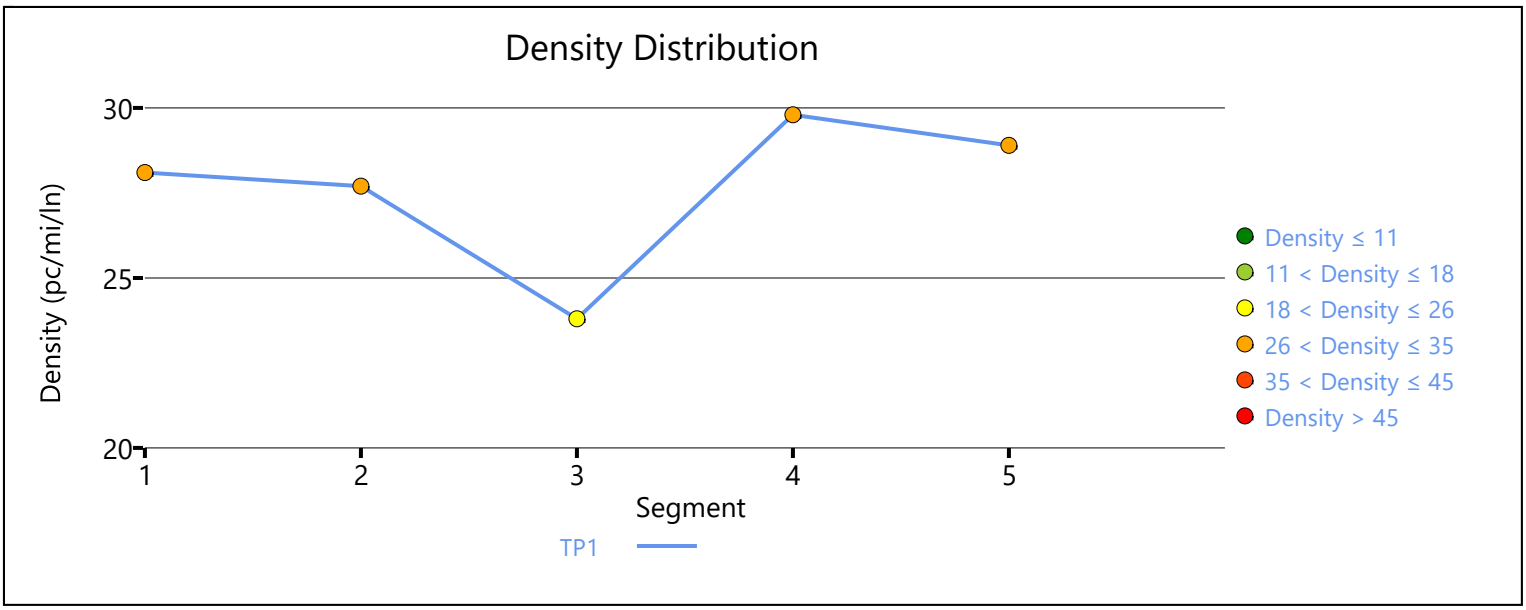
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	7428	9548	0.78	64.3	28.9	D

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	64.8	27.6	27.2	1.7	D

Facility Overall Results			
Space Mean Speed, mi/h	64.8	Density, veh/mi/ln	27.2
Average Travel Time, min	1.7	Density, pc/mi/ln	27.6







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APPENDIX 7.9:

OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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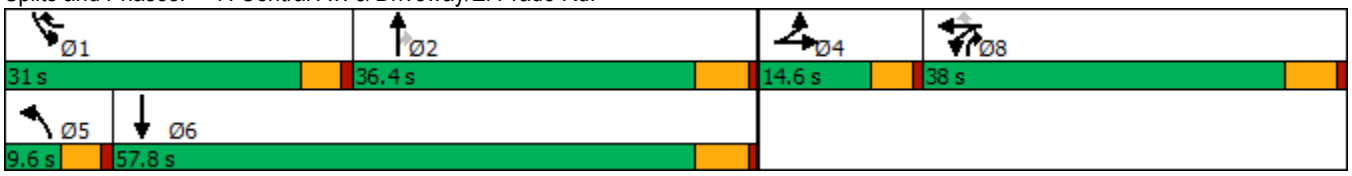
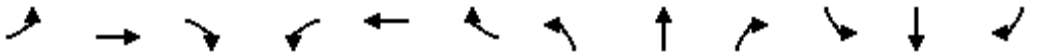
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	2	6	829	4	552	2	865	562	275	739
Future Volume (vph)	2	6	829	4	552	2	865	562	275	739
Turn Type	Split	NA	Split	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	4	4	8	8	1	5	2	8	1	6
Permitted Phases					8			2		
Detector Phase	4	4	8	8	1	5	2	8	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	34.8	34.8	9.6	9.6	27.8	34.8	9.6	24.8
Total Split (s)	14.6	14.6	38.0	38.0	31.0	9.6	36.4	38.0	31.0	57.8
Total Split (%)	12.2%	12.2%	31.7%	31.7%	25.8%	8.0%	30.3%	31.7%	25.8%	48.2%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	5.8	4.6	4.6	5.8	5.8	4.6	5.8
Lead/Lag					Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	None	Max
Act Effct Green (s)	10.1	10.1	32.4	32.4	51.7	5.0	35.9	68.4	13.4	52.4
Actuated g/C Ratio	0.10	0.10	0.32	0.32	0.51	0.05	0.36	0.68	0.13	0.52
v/c Ratio	0.01	0.04	0.86	0.81	0.61	0.02	0.72	0.49	0.67	0.30
Control Delay	45.5	43.1	51.1	46.4	12.1	51.0	33.5	2.7	50.2	15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.5	43.1	51.1	46.4	12.1	51.0	33.5	2.7	50.2	15.1
LOS	D	D	D	D	B	D	C	A	D	B
Approach Delay		43.7		34.1			21.4			24.5
Approach LOS		D		C			C			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 100.6	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 26.9	Intersection LOS: C
Intersection Capacity Utilization 82.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 7: Central Av. & Driveway/El Prado Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	6	1	829	4	552	2	865	562	275	739	11
Future Volume (veh/h)	2	6	1	829	4	552	2	865	562	275	739	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	2	6	0	849	0	346	2	883	399	281	754	8
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	32	36	0	919	0	602	4	1326	1016	347	2483	26
Arrive On Green	0.02	0.02	0.00	0.28	0.00	0.28	0.00	0.39	0.39	0.11	0.50	0.50
Sat Flow, veh/h	1619	1800	0	3238	0	1525	1619	3420	1505	3141	5012	53
Grp Volume(v), veh/h	2	6	0	849	0	346	2	883	399	281	493	269
Grp Sat Flow(s),veh/h/ln	1619	1800	0	1619	0	1525	1619	1710	1505	1570	1638	1789
Q Serve(g_s), s	0.1	0.3	0.0	26.7	0.0	18.6	0.1	22.4	12.4	9.2	9.4	9.4
Cycle Q Clear(g_c), s	0.1	0.3	0.0	26.7	0.0	18.6	0.1	22.4	12.4	9.2	9.4	9.4
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	32	36	0	919	0	602	4	1326	1016	347	1623	886
V/C Ratio(X)	0.06	0.17	0.00	0.92	0.00	0.58	0.46	0.67	0.39	0.81	0.30	0.30
Avail Cap(c_a), veh/h	154	171	0	993	0	637	77	1326	1016	790	1623	886
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.5	50.6	0.0	36.5	0.0	24.9	52.3	26.5	7.7	45.6	15.7	15.7
Incr Delay (d2), s/veh	0.3	0.8	0.0	12.7	0.0	0.6	25.3	2.7	1.1	1.7	0.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.2	0.0	11.4	0.0	6.3	0.1	9.0	8.1	3.5	3.3	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.8	51.4	0.0	49.2	0.0	25.5	77.6	29.2	8.8	47.3	16.2	16.6
LnGrp LOS	D	D	A	D	A	C	E	C	A	D	B	B
Approach Vol, veh/h		8			1195			1284			1043	
Approach Delay, s/veh		51.2			42.3			22.9			24.7	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.2	46.5		6.7	4.9	57.8		35.6				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		5.8				
Max Green Setting (Gmax), s	26.4	30.6		10.0	5.0	52.0		32.2				
Max Q Clear Time (g_c+I1), s	11.2	24.4		2.3	2.1	11.4		28.7				
Green Ext Time (p_c), s	0.4	3.5		0.0	0.0	5.0		1.1				

Intersection Summary			
HCM 6th Ctrl Delay		30.1	
HCM 6th LOS		C	

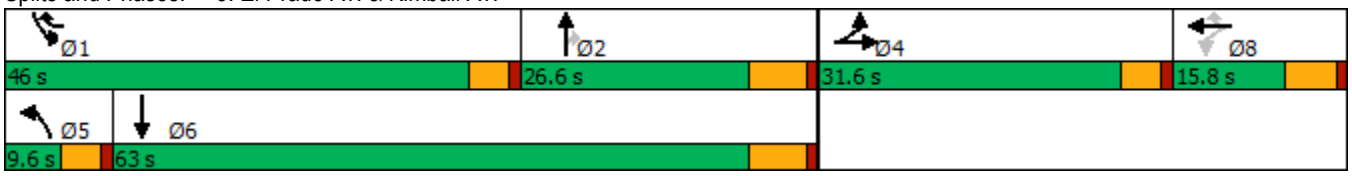
Notes

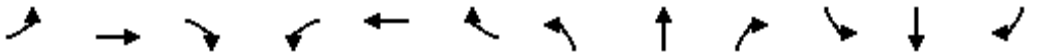
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	23	4	32	16	843	6	290	31	445	249
Future Volume (vph)	23	4	32	16	843	6	290	31	445	249
Turn Type	Split	NA	Perm	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	4	4		8	1	5	2		1	6
Permitted Phases			8		8			2		
Detector Phase	4	4	8	8	1	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	15.8	15.8	9.6	9.6	16.2	16.2	9.6	24.2
Total Split (s)	31.6	31.6	15.8	15.8	46.0	9.6	26.6	26.6	46.0	63.0
Total Split (%)	26.3%	26.3%	13.2%	13.2%	38.3%	8.0%	22.2%	22.2%	38.3%	52.5%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		5.8	4.6	4.6	6.2	6.2	4.6	6.2
Lead/Lag					Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Max	None	None	None	Max	Max
Act Effct Green (s)	13.1	13.1		10.4	51.4	5.2	21.3	21.3	43.1	70.9
Actuated g/C Ratio	0.14	0.14		0.11	0.55	0.06	0.23	0.23	0.46	0.75
v/c Ratio	0.11	0.03		0.32	0.81	0.07	0.75	0.07	0.33	0.23
Control Delay	40.6	31.9		51.8	13.4	53.2	51.2	0.3	21.1	10.1
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.6	31.9		51.8	13.4	53.2	51.2	0.3	21.1	10.1
LOS	D	C		D	B	D	D	A	C	B
Approach Delay		38.6		15.5			46.4			16.8
Approach LOS		D		B			D			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 94.2	
Natural Cycle: 85	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 21.4	Intersection LOS: C
Intersection Capacity Utilization 92.4%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 8: El Prado Av. & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	4	3	32	16	843	6	290	31	445	249	40
Future Volume (veh/h)	23	4	3	32	16	843	6	290	31	445	249	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	24	4	2	34	17	490	6	305	33	468	262	39
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	93	65	32	120	60	813	12	342	290	1348	933	139
Arrive On Green	0.06	0.06	0.06	0.10	0.10	0.10	0.01	0.19	0.19	0.43	0.61	0.61
Sat Flow, veh/h	1619	1132	566	1161	581	1525	1619	1800	1525	3141	1526	227
Grp Volume(v), veh/h	24	0	6	51	0	490	6	305	33	468	0	301
Grp Sat Flow(s),veh/h/ln	1619	0	1698	1742	0	1525	1619	1800	1525	1570	0	1753
Q Serve(g_s), s	1.4	0.0	0.3	2.6	0.0	10.0	0.4	15.9	1.7	9.6	0.0	7.8
Cycle Q Clear(g_c), s	1.4	0.0	0.3	2.6	0.0	10.0	0.4	15.9	1.7	9.6	0.0	7.8
Prop In Lane	1.00		0.33	0.67		1.00	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	93	0	97	181	0	813	12	342	290	1348	0	1072
V/C Ratio(X)	0.26	0.00	0.06	0.28	0.00	0.60	0.48	0.89	0.11	0.35	0.00	0.28
Avail Cap(c_a), veh/h	453	0	475	181	0	813	84	381	323	1348	0	1072
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.5	0.0	43.0	39.9	0.0	15.5	47.7	38.1	32.3	18.5	0.0	8.8
Incr Delay (d2), s/veh	1.5	0.0	0.3	0.8	0.0	1.3	10.3	20.8	0.2	0.7	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.1	1.1	0.0	6.7	0.2	8.6	0.6	3.3	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.0	0.0	43.3	40.8	0.0	16.8	58.0	58.9	32.5	19.2	0.0	9.4
LnGrp LOS	D	A	D	D	A	B	E	E	C	B	A	A
Approach Vol, veh/h		30			541			344			769	
Approach Delay, s/veh		44.6			19.0			56.4			15.4	
Approach LOS		D			B			E			B	

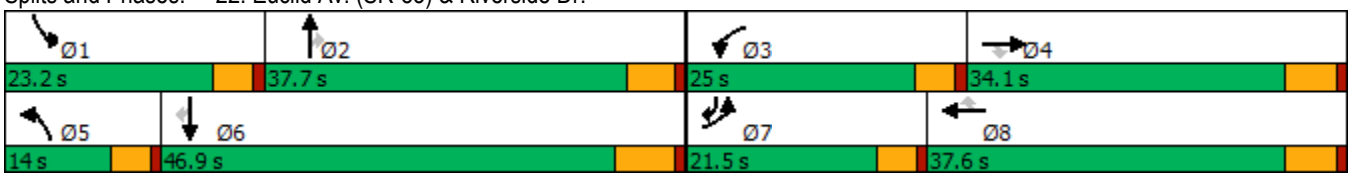
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	46.0	24.5		10.1	5.3	65.2		15.8				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		5.8				
Max Green Setting (Gmax), s	41.4	20.4		27.0	5.0	56.8		10.0				
Max Q Clear Time (g_c+I1), s	11.6	17.9		3.4	2.4	9.8		12.0				
Green Ext Time (p_c), s	0.8	0.4		0.1	0.0	1.7		0.0				

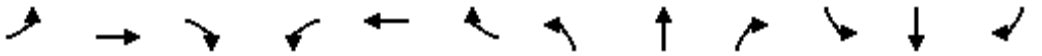
Intersection Summary			
HCM 6th Ctrl Delay		25.4	
HCM 6th LOS		C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	162	330	63	200	517	122	75	1035	166	184	1128	161
Future Volume (vph)	162	330	63	200	517	122	75	1035	166	184	1128	161
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	25.8	25.8	9.6	31.8	31.8	9.6	30.4	30.4	9.6	34.5	9.6
Total Split (s)	21.5	34.1	34.1	25.0	37.6	37.6	14.0	37.7	37.7	23.2	46.9	21.5
Total Split (%)	17.9%	28.4%	28.4%	20.8%	31.3%	31.3%	11.7%	31.4%	31.4%	19.3%	39.1%	17.9%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	None
Act Effct Green (s)	14.8	25.1	25.1	17.7	28.0	28.0	8.4	33.0	33.0	16.3	42.3	59.0
Actuated g/C Ratio	0.13	0.22	0.22	0.16	0.25	0.25	0.07	0.29	0.29	0.14	0.38	0.52
v/c Ratio	0.81	0.87	0.14	0.83	0.64	0.26	0.66	0.76	0.31	0.83	0.64	0.20
Control Delay	76.9	65.0	0.7	74.0	42.0	4.1	79.0	41.7	6.6	76.5	33.0	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.9	65.0	0.7	74.0	42.0	4.1	79.0	41.7	6.6	76.5	33.0	5.0
LOS	E	E	A	E	D	A	E	D	A	E	C	A
Approach Delay		61.2			44.2			39.3			35.4	
Approach LOS		E			D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 112.7	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 41.8	Intersection LOS: D
Intersection Capacity Utilization 80.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 22: Euclid Av. (SR-83) & Riverside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	162	330	63	200	517	122	75	1035	166	184	1128	161
Future Volume (veh/h)	162	330	63	200	517	122	75	1035	166	184	1128	161
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	171	347	50	211	544	99	79	1089	135	194	1187	110
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	198	388	329	238	823	367	98	1477	458	221	1850	760
Arrive On Green	0.12	0.22	0.22	0.15	0.24	0.24	0.06	0.30	0.30	0.14	0.38	0.38
Sat Flow, veh/h	1619	1800	1525	1619	3420	1525	1619	4914	1525	1619	4914	1524
Grp Volume(v), veh/h	171	347	50	211	544	99	79	1089	135	194	1187	110
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1619	1710	1525	1619	1638	1525	1619	1638	1524
Q Serve(g_s), s	11.1	20.1	2.9	13.7	15.4	5.7	5.2	21.4	7.3	12.6	21.3	4.2
Cycle Q Clear(g_c), s	11.1	20.1	2.9	13.7	15.4	5.7	5.2	21.4	7.3	12.6	21.3	4.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	198	388	329	238	823	367	98	1477	458	221	1850	760
V/C Ratio(X)	0.86	0.89	0.15	0.89	0.66	0.27	0.81	0.74	0.29	0.88	0.64	0.14
Avail Cap(c_a), veh/h	255	474	402	307	1012	451	142	1477	458	280	1850	760
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.3	41.0	34.2	44.9	36.9	33.1	49.9	33.8	28.8	45.5	27.5	14.6
Incr Delay (d2), s/veh	17.8	16.8	0.2	18.2	1.2	0.4	12.4	3.3	1.6	18.8	1.7	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	10.3	1.0	6.5	6.3	2.1	2.3	8.3	2.8	6.1	8.3	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.1	57.8	34.4	63.2	38.0	33.5	62.3	37.1	30.5	64.3	29.3	15.0
LnGrp LOS	E	E	C	E	D	C	E	D	C	E	C	B
Approach Vol, veh/h		568			854			1303			1491	
Approach Delay, s/veh		57.6			43.7			37.9			32.8	
Approach LOS		E			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.3	38.8	20.4	29.0	11.1	47.0	17.7	31.7
Change Period (Y+Rc), s	4.6	* 6.5	4.6	5.8	4.6	6.5	4.6	5.8
Max Green Setting (Gmax), s	18.6	* 32	20.4	28.3	9.4	40.4	16.9	31.8
Max Q Clear Time (g_c+I1), s	14.6	23.4	15.7	22.1	7.2	23.3	13.1	17.4
Green Ext Time (p_c), s	0.1	4.5	0.1	1.0	0.0	7.8	0.1	3.1

Intersection Summary	
HCM 6th Ctrl Delay	39.9
HCM 6th LOS	D

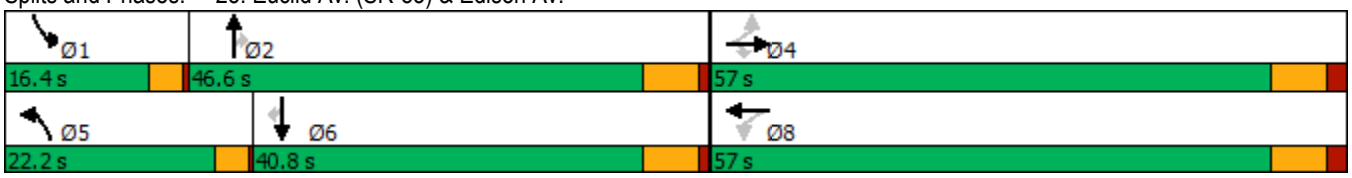
Notes

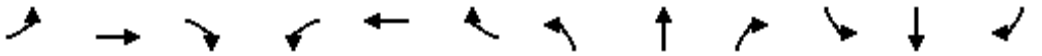
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	165	284	125	35	451	231	1002	40	79	989	177
Future Volume (vph)	165	284	125	35	451	231	1002	40	79	989	177
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	46.0	46.0	46.0	49.0	49.0	8.5	29.0	29.0	8.5	40.0	40.0
Total Split (s)	57.0	57.0	57.0	57.0	57.0	22.2	46.6	46.6	16.4	40.8	40.8
Total Split (%)	47.5%	47.5%	47.5%	47.5%	47.5%	18.5%	38.8%	38.8%	13.7%	34.0%	34.0%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	49.7	49.7	49.7	49.7	49.7	18.7	41.9	41.9	9.8	31.1	31.1
Actuated g/C Ratio	0.43	0.43	0.43	0.43	0.43	0.16	0.36	0.36	0.08	0.27	0.27
v/c Ratio	0.91	0.38	0.18	0.10	0.72	0.93	0.59	0.07	0.60	0.78	0.34
Control Delay	81.8	25.2	4.3	22.0	34.0	89.6	32.6	2.7	69.9	44.0	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.8	25.2	4.3	22.0	34.0	89.6	32.6	2.7	69.9	44.0	6.5
LOS	F	C	A	C	C	F	C	A	E	D	A
Approach Delay		36.9			33.2		42.0			40.3	
Approach LOS		D			C		D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 116	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 39.3	Intersection LOS: D
Intersection Capacity Utilization 94.7%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 25: Euclid Av. (SR-83) & Edison Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	284	125	35	451	70	231	1002	40	79	989	177
Future Volume (veh/h)	165	284	125	35	451	70	231	1002	40	79	989	177
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	172	296	75	36	470	68	241	1044	34	82	1030	133
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	219	785	665	378	671	97	264	1754	545	102	1260	382
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.16	0.36	0.36	0.06	0.26	0.26
Sat Flow, veh/h	832	1800	1524	970	1537	222	1619	4914	1525	1619	4914	1488
Grp Volume(v), veh/h	172	296	75	36	0	538	241	1044	34	82	1030	133
Grp Sat Flow(s),veh/h/ln	832	1800	1524	970	0	1760	1619	1638	1525	1619	1638	1488
Q Serve(g_s), s	21.6	12.7	3.3	3.0	0.0	28.4	16.8	19.9	1.7	5.7	22.6	8.4
Cycle Q Clear(g_c), s	50.0	12.7	3.3	15.7	0.0	28.4	16.8	19.9	1.7	5.7	22.6	8.4
Prop In Lane	1.00		1.00	1.00		0.13	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	219	785	665	378	0	768	264	1754	545	102	1260	382
V/C Ratio(X)	0.78	0.38	0.11	0.10	0.00	0.70	0.91	0.60	0.06	0.81	0.82	0.35
Avail Cap(c_a), veh/h	219	785	665	378	0	768	264	1754	545	182	1492	452
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.5	21.8	19.1	27.1	0.0	26.2	47.1	30.1	24.2	53.0	40.1	34.8
Incr Delay (d2), s/veh	16.8	0.3	0.1	0.1	0.0	2.9	32.5	0.5	0.0	5.6	3.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	5.2	1.1	0.7	0.0	11.8	8.8	7.4	0.6	2.4	8.9	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.3	22.1	19.2	27.2	0.0	29.1	79.7	30.6	24.3	58.6	43.2	35.3
LnGrp LOS	E	C	B	C	A	C	E	C	C	E	D	D
Approach Vol, veh/h		543			574			1319			1245	
Approach Delay, s/veh		35.1			29.0			39.4			43.4	
Approach LOS		D			C			D			D	

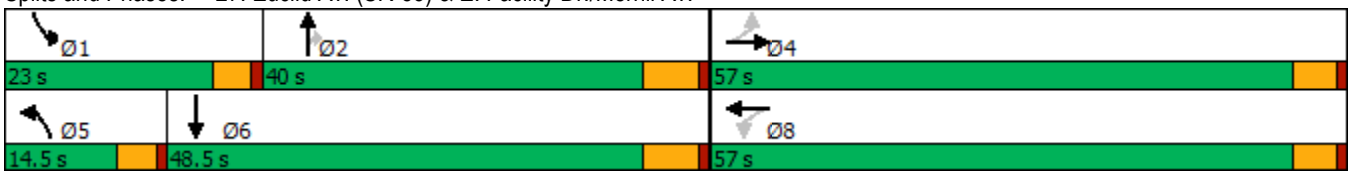
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.7	46.9		57.0	22.2	35.4		57.0				
Change Period (Y+Rc), s	3.5	6.0		7.0	3.5	6.0		7.0				
Max Green Setting (Gmax), s	12.9	40.6		50.0	18.7	34.8		50.0				
Max Q Clear Time (g_c+I1), s	7.7	21.9		52.0	18.8	24.6		30.4				
Green Ext Time (p_c), s	0.0	6.3		0.0	0.0	4.7		3.2				

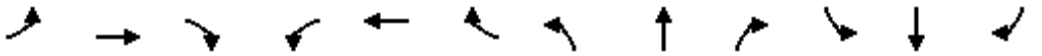
Intersection Summary												
HCM 6th Ctrl Delay			38.5									
HCM 6th LOS			D									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	4	8	254	50	11	1135	203	187	1090
Future Volume (vph)	4	8	254	50	11	1135	203	187	1090
Turn Type	Perm	NA	Perm	NA	Prot	NA	Perm	Prot	NA
Protected Phases		4		8	5	2		1	6
Permitted Phases	4		8				2		
Detector Phase	4	4	8	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	15.0	15.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	10.0	10.0	46.0	46.0	14.5	28.0	28.0	14.5	28.0
Total Split (s)	57.0	57.0	57.0	57.0	14.5	40.0	40.0	23.0	48.5
Total Split (%)	47.5%	47.5%	47.5%	47.5%	12.1%	33.3%	33.3%	19.2%	40.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.5	5.0	5.0	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	4.5	6.0	6.0	4.5	6.0
Lead/Lag					Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min
Act Effct Green (s)		46.1		46.1	10.2	31.6	31.6	16.2	49.7
Actuated g/C Ratio		0.42		0.42	0.09	0.29	0.29	0.15	0.45
v/c Ratio		0.05		0.94	0.07	0.83	0.41	0.81	0.53
Control Delay		11.2		52.8	52.1	43.4	20.3	73.5	24.0
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		11.2		52.8	52.1	43.4	20.3	73.5	24.0
LOS		B		D	D	D	C	E	C
Approach Delay		11.2		52.8		40.0			31.0
Approach LOS		B		D		D			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 109.7	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 38.3	Intersection LOS: D
Intersection Capacity Utilization 88.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 27: Euclid Av. (SR-83) & E. Facility Dr./Merrill Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	8	18	254	50	259	11	1135	203	187	1090	41
Future Volume (veh/h)	4	8	18	254	50	259	11	1135	203	187	1090	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	4	8	18	262	52	240	11	1170	166	193	1124	28
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	99	195	377	336	56	257	43	1478	459	224	2032	51
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.03	0.30	0.30	0.14	0.41	0.41
Sat Flow, veh/h	141	493	951	705	142	648	1619	4914	1525	1619	4928	123
Grp Volume(v), veh/h	30	0	0	554	0	0	11	1170	166	193	747	405
Grp Sat Flow(s),veh/h/ln	1585	0	0	1495	0	0	1619	1638	1525	1619	1638	1775
Q Serve(g_s), s	0.0	0.0	0.0	32.4	0.0	0.0	0.6	20.6	8.0	11.0	16.4	16.4
Cycle Q Clear(g_c), s	1.1	0.0	0.0	33.5	0.0	0.0	0.6	20.6	8.0	11.0	16.4	16.4
Prop In Lane	0.13		0.60	0.47		0.43	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	672	0	0	649	0	0	43	1478	459	224	1351	732
V/C Ratio(X)	0.04	0.00	0.00	0.85	0.00	0.00	0.26	0.79	0.36	0.86	0.55	0.55
Avail Cap(c_a), veh/h	906	0	0	880	0	0	172	1772	550	318	1477	800
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.5	0.0	0.0	27.2	0.0	0.0	45.0	30.2	25.9	39.7	21.1	21.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	4.8	0.0	0.0	1.2	2.1	0.5	11.8	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	11.4	0.0	0.0	0.3	7.6	2.7	4.8	5.6	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.5	0.0	0.0	32.0	0.0	0.0	46.1	32.4	26.3	51.5	21.4	21.8
LnGrp LOS	B	A	A	C	A	A	D	C	C	D	C	C
Approach Vol, veh/h		30			554			1347			1345	
Approach Delay, s/veh		17.5			32.0			31.7			25.9	
Approach LOS		B			C			C			C	

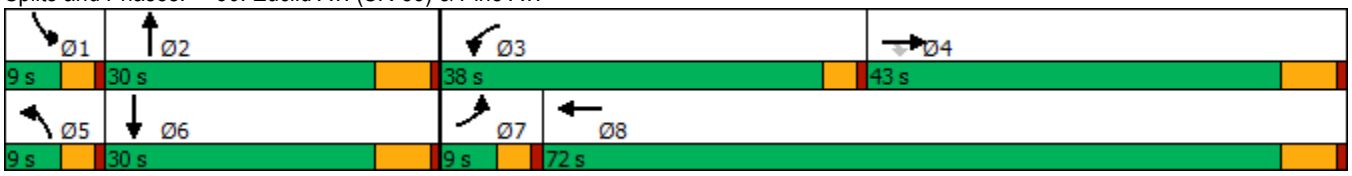
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.5	34.4		42.4	7.0	44.9		42.4				
Change Period (Y+Rc), s	4.5	6.0		5.0	4.5	6.0		5.0				
Max Green Setting (Gmax), s	18.5	34.0		52.0	10.0	42.5		52.0				
Max Q Clear Time (g_c+I1), s	13.0	22.6		3.1	2.6	18.4		35.5				
Green Ext Time (p_c), s	0.1	5.8		0.1	0.0	7.1		1.9				

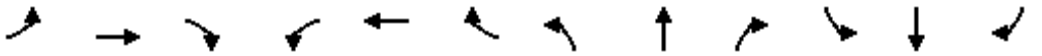
Intersection Summary			
HCM 6th Ctrl Delay		29.2	
HCM 6th LOS		C	

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	8	184	49	1080	326	54	726	707	51	695
Future Volume (vph)	8	184	49	1080	326	54	726	707	51	695
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Free	Prot	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases			4					Free		
Detector Phase	7	4	4	3	8	5	2		1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	9.0	43.0	43.0	9.0	45.0	9.0	11.0		9.0	29.0
Total Split (s)	9.0	43.0	43.0	38.0	72.0	9.0	30.0		9.0	30.0
Total Split (%)	7.5%	35.8%	35.8%	31.7%	60.0%	7.5%	25.0%		7.5%	25.0%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0		3.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	4.0	6.0		4.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Min		None	Min
Act Effct Green (s)	5.1	18.6	18.6	34.5	55.7	5.1	20.8	97.2	5.1	18.7
Actuated g/C Ratio	0.05	0.19	0.19	0.35	0.57	0.05	0.21	1.00	0.05	0.19
v/c Ratio	0.10	0.55	0.13	1.06	0.40	0.67	0.71	0.48	0.63	0.78
Control Delay	52.9	41.5	0.7	78.6	13.2	85.0	41.3	1.1	81.0	44.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.9	41.5	0.7	78.6	13.2	85.0	41.3	1.1	81.0	44.3
LOS	D	D	A	E	B	F	D	A	F	D
Approach Delay		33.5			61.3		23.8			46.8
Approach LOS		C			E		C			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 97.2	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay: 42.7	Intersection LOS: D
Intersection Capacity Utilization 82.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 30: Euclid Av. (SR-83) & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	184	49	1080	326	63	54	726	707	51	695	17
Future Volume (veh/h)	8	184	49	1080	326	63	54	726	707	51	695	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1600	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	8	190	0	1113	336	63	56	748	0	53	716	14
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	16	253		1160	770	144	69	948		68	952	19
Arrive On Green	0.01	0.14	0.00	0.39	0.52	0.52	0.04	0.19	0.00	0.04	0.19	0.19
Sat Flow, veh/h	1619	1800	1525	2956	1474	276	1619	4914	1525	1619	4962	97
Grp Volume(v), veh/h	8	190	0	1113	0	399	56	748	0	53	472	258
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1478	0	1750	1619	1638	1525	1619	1638	1783
Q Serve(g_s), s	0.4	8.7	0.0	31.5	0.0	12.1	2.9	12.5	0.0	2.8	11.7	11.7
Cycle Q Clear(g_c), s	0.4	8.7	0.0	31.5	0.0	12.1	2.9	12.5	0.0	2.8	11.7	11.7
Prop In Lane	1.00		1.00	1.00		0.16	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	16	253		1160	0	915	69	948		68	628	342
V/C Ratio(X)	0.49	0.75		0.96	0.00	0.44	0.81	0.79		0.78	0.75	0.75
Avail Cap(c_a), veh/h	94	775		1169	0	1344	94	1372		94	915	498
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.3	35.5	0.0	25.5	0.0	12.7	40.8	33.0	0.0	40.8	32.8	32.8
Incr Delay (d2), s/veh	8.1	6.3	0.0	17.3	0.0	0.5	21.9	1.1	0.0	16.2	1.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	4.0	0.0	12.4	0.0	4.1	1.5	4.6	0.0	1.3	4.3	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	41.8	0.0	42.7	0.0	13.2	62.7	34.2	0.0	57.0	33.8	34.6
LnGrp LOS	D	D		D	A	B	E	C		E	C	C
Approach Vol, veh/h		198	A		1512			804	A		783	
Approach Delay, s/veh		42.2			34.9			36.2			35.6	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.6	22.6	37.7	18.1	7.7	22.5	4.9	50.9
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	5.0	24.0	34.0	37.0	5.0	24.0	5.0	66.0
Max Q Clear Time (g_c+I1), s	4.8	14.5	33.5	10.7	4.9	13.7	2.4	14.1
Green Ext Time (p_c), s	0.0	2.1	0.2	1.3	0.0	1.9	0.0	3.6

Intersection Summary	
HCM 6th Ctrl Delay	35.8
HCM 6th LOS	D

Notes

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	309	855	868	335	214	508
Future Volume (vph)	309	855	868	335	214	508
Turn Type	Prot	pm+ov	NA	pm+ov	Prot	NA
Protected Phases	8	1	2	8	1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	36.3	11.0	46.3	36.3	11.0	11.0
Total Split (s)	36.3	37.0	46.7	36.3	37.0	83.7
Total Split (%)	30.3%	30.8%	38.9%	30.3%	30.8%	69.8%
Yellow Time (s)	4.3	4.0	4.3	4.3	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.0	5.3	5.3	5.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	Max	None	None	Max	None
Act Effct Green (s)	22.2	55.0	32.9	60.5	32.5	70.9
Actuated g/C Ratio	0.21	0.53	0.32	0.58	0.31	0.69
v/c Ratio	0.83	1.03	0.79	0.32	0.39	0.41
Control Delay	58.6	60.7	38.0	1.7	33.4	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.6	60.7	38.0	1.7	33.4	9.0
LOS	E	E	D	A	C	A
Approach Delay	60.2		27.9			16.2
Approach LOS	E		C			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 103.5	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 37.3	Intersection LOS: D
Intersection Capacity Utilization 85.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 42: Archibald Av. & Limonite Av.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	309	855	868	335	214	508
Future Volume (veh/h)	309	855	868	335	214	508
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	322	835	904	302	223	529
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	495	896	1105	933	511	1202
Arrive On Green	0.27	0.27	0.31	0.31	0.28	0.63
Sat Flow, veh/h	1810	1610	3705	1610	1810	1900
Grp Volume(v), veh/h	322	835	904	302	223	529
Grp Sat Flow(s),veh/h/ln	1810	1610	1805	1610	1810	1900
Q Serve(g_s), s	17.8	31.0	26.3	11.0	11.4	16.1
Cycle Q Clear(g_c), s	17.8	31.0	26.3	11.0	11.4	16.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	495	896	1105	933	511	1202
V/C Ratio(X)	0.65	0.93	0.82	0.32	0.44	0.44
Avail Cap(c_a), veh/h	495	896	1320	1029	511	1320
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.3	23.2	36.4	12.3	33.2	10.6
Incr Delay (d2), s/veh	2.4	15.9	3.8	0.2	2.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.8	21.6	11.5	6.8	5.1	5.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	38.7	39.1	40.1	12.6	35.9	10.7
LnGrp LOS	D	D	D	B	D	B
Approach Vol, veh/h	1157		1206			752
Approach Delay, s/veh	39.0		33.2			18.2
Approach LOS	D		C			B

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	37.0	39.9			76.9	36.3
Change Period (Y+Rc), s	5.0	5.3			* 5.3	5.3
Max Green Setting (Gmax), s	32.0	41.4			* 79	31.0
Max Q Clear Time (g_c+I1), s	13.4	28.3			18.1	33.0
Green Ext Time (p_c), s	0.5	6.4			1.7	0.0

Intersection Summary	
HCM 6th Ctrl Delay	31.7
HCM 6th LOS	C

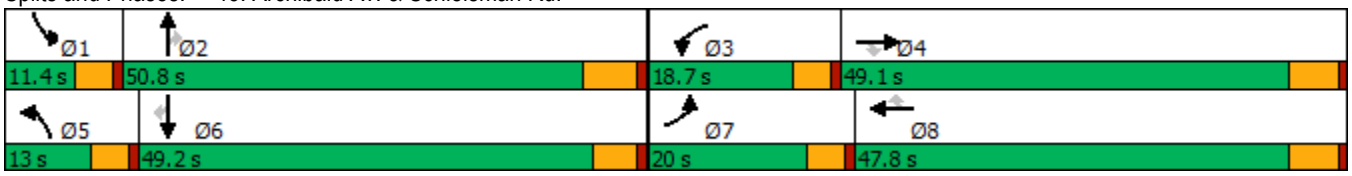
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	450	409	133	263	751	149	265	839	228	110	472	465
Future Volume (vph)	450	409	133	263	751	149	265	839	228	110	472	465
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	47.8	47.8	9.6	47.8	47.8	9.6	48.2	48.2	9.6	47.4	47.4
Total Split (s)	20.0	49.1	49.1	18.7	47.8	47.8	13.0	50.8	50.8	11.4	49.2	49.2
Total Split (%)	15.4%	37.8%	37.8%	14.4%	36.8%	36.8%	10.0%	39.1%	39.1%	8.8%	37.8%	37.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	5.2	5.2	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	6.2	6.2	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	None	None	Max	None	None	None	None	None	None	None	None
Act Effct Green (s)	15.9	26.2	26.2	14.6	24.8	24.8	8.7	28.1	28.1	6.8	27.0	27.0
Actuated g/C Ratio	0.16	0.27	0.27	0.15	0.25	0.25	0.09	0.29	0.29	0.07	0.28	0.28
v/c Ratio	0.88	0.33	0.28	0.56	0.63	0.33	0.94	0.62	0.39	0.50	0.36	0.82
Control Delay	59.7	29.6	6.3	46.7	34.8	10.2	85.7	32.2	5.4	56.1	29.1	27.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.7	29.6	6.3	46.7	34.8	10.2	85.7	32.2	5.4	56.1	29.1	27.1
LOS	E	C	A	D	C	B	F	C	A	E	C	C
Approach Delay		40.1			34.3			38.2			31.0	
Approach LOS		D			C			D			C	

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 97.6	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 36.0	Intersection LOS: D
Intersection Capacity Utilization 80.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 43: Archibald Av. & Schleisman Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	450	409	133	263	751	149	265	839	228	110	472	465
Future Volume (veh/h)	450	409	133	263	751	149	265	839	228	110	472	465
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	500	454	84	292	834	89	294	932	180	122	524	395
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	555	1307	398	508	1238	379	303	1727	536	186	1554	476
Arrive On Green	0.16	0.25	0.25	0.14	0.24	0.24	0.09	0.33	0.33	0.05	0.30	0.30
Sat Flow, veh/h	3510	5187	1581	3510	5187	1589	3510	5187	1610	3510	5187	1588
Grp Volume(v), veh/h	500	454	84	292	834	89	294	932	180	122	524	395
Grp Sat Flow(s),veh/h/ln	1755	1729	1581	1755	1729	1589	1755	1729	1610	1755	1729	1588
Q Serve(g_s), s	13.6	7.0	4.1	7.6	14.2	4.4	8.1	14.2	8.2	3.3	7.7	22.6
Cycle Q Clear(g_c), s	13.6	7.0	4.1	7.6	14.2	4.4	8.1	14.2	8.2	3.3	7.7	22.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	555	1307	398	508	1238	379	303	1727	536	186	1554	476
V/C Ratio(X)	0.90	0.35	0.21	0.57	0.67	0.23	0.97	0.54	0.34	0.66	0.34	0.83
Avail Cap(c_a), veh/h	555	2305	702	508	2236	685	303	2374	737	245	2332	714
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.3	29.9	28.8	38.9	33.7	29.9	44.4	26.4	24.4	45.3	26.6	31.8
Incr Delay (d2), s/veh	20.3	0.2	0.3	4.7	0.6	0.3	43.6	0.3	0.4	1.5	0.1	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	2.8	1.5	3.4	5.7	1.6	5.2	5.4	3.0	1.4	3.0	8.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.6	30.0	29.1	43.5	34.3	30.2	88.0	26.7	24.8	46.8	26.7	37.0
LnGrp LOS	E	C	C	D	C	C	F	C	C	D	C	D
Approach Vol, veh/h		1038			1215			1406			1041	
Approach Delay, s/veh		44.7			36.2			39.3			33.0	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	38.6	18.7	30.4	13.0	35.4	20.0	29.1
Change Period (Y+Rc), s	4.6	6.2	4.6	5.8	4.6	* 6.2	4.6	5.8
Max Green Setting (Gmax), s	6.8	44.6	14.1	43.3	8.4	* 44	15.4	42.0
Max Q Clear Time (g_c+I1), s	5.3	16.2	9.6	9.0	10.1	24.6	15.6	16.2
Green Ext Time (p_c), s	0.0	7.1	0.2	3.2	0.0	4.4	0.0	6.0

Intersection Summary	
HCM 6th Ctrl Delay	38.3
HCM 6th LOS	D

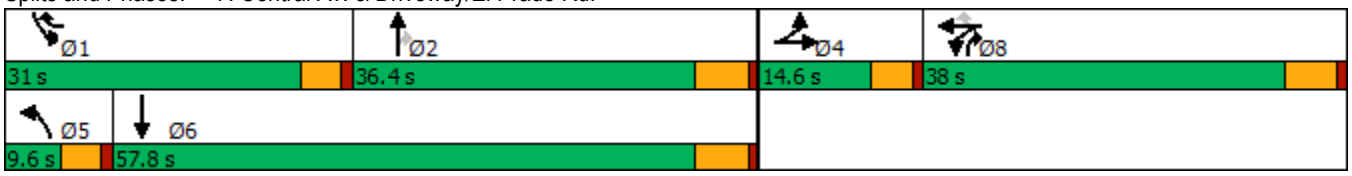
Notes

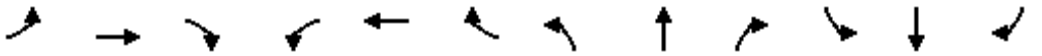
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	18	13	634	3	504	6	801	889	670	904
Future Volume (vph)	18	13	634	3	504	6	801	889	670	904
Turn Type	Split	NA	Split	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	4	4	8	8	1	5	2	8	1	6
Permitted Phases					8			2		
Detector Phase	4	4	8	8	1	5	2	8	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	34.8	34.8	9.6	9.6	27.8	34.8	9.6	24.8
Total Split (s)	14.6	14.6	38.0	38.0	31.0	9.6	36.4	38.0	31.0	57.8
Total Split (%)	12.2%	12.2%	31.7%	31.7%	25.8%	8.0%	30.3%	31.7%	25.8%	48.2%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	5.8	4.6	4.6	5.8	5.8	4.6	5.8
Lead/Lag					Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	None	Max
Act Effct Green (s)	10.0	10.0	32.3	32.3	60.1	5.0	30.7	63.1	26.5	60.0
Actuated g/C Ratio	0.09	0.09	0.28	0.28	0.53	0.04	0.27	0.55	0.23	0.53
v/c Ratio	0.13	0.14	0.76	0.72	0.58	0.08	0.91	0.96	0.96	0.37
Control Delay	53.1	39.6	51.4	48.4	12.7	58.0	55.7	34.4	69.4	17.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.1	39.6	51.4	48.4	12.7	58.0	55.7	34.4	69.4	17.8
LOS	D	D	D	D	B	E	E	C	E	B
Approach Delay		45.9		33.5			44.5			39.5
Approach LOS		D		C			D			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 114.2	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 39.9	Intersection LOS: D
Intersection Capacity Utilization 100.6%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 7: Central Av. & Driveway/El Prado Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	13	8	634	3	504	6	801	889	670	904	19
Future Volume (veh/h)	18	13	8	634	3	504	6	801	889	670	904	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	19	14	3	662	0	270	6	834	586	698	942	18
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	99	88	19	743	0	712	12	961	777	746	2537	48
Arrive On Green	0.06	0.06	0.06	0.23	0.00	0.23	0.01	0.28	0.28	0.24	0.51	0.51
Sat Flow, veh/h	1619	1437	308	3238	0	1523	1619	3420	1521	3141	4964	95
Grp Volume(v), veh/h	19	0	17	662	0	270	6	834	586	698	621	339
Grp Sat Flow(s),veh/h/ln	1619	0	1745	1619	0	1523	1619	1710	1521	1570	1638	1783
Q Serve(g_s), s	1.2	0.0	1.0	21.6	0.0	12.5	0.4	25.2	30.6	23.7	12.5	12.5
Cycle Q Clear(g_c), s	1.2	0.0	1.0	21.6	0.0	12.5	0.4	25.2	30.6	23.7	12.5	12.5
Prop In Lane	1.00		0.18	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	99	0	106	743	0	712	12	961	777	746	1674	911
V/C Ratio(X)	0.19	0.00	0.16	0.89	0.00	0.38	0.49	0.87	0.75	0.94	0.37	0.37
Avail Cap(c_a), veh/h	149	0	160	958	0	813	74	961	777	762	1674	911
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.6	0.0	48.5	40.6	0.0	18.8	53.8	37.2	20.5	40.7	16.1	16.1
Incr Delay (d2), s/veh	0.3	0.0	0.3	7.4	0.0	0.1	10.6	10.4	6.7	18.2	0.6	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.4	8.9	0.0	4.1	0.2	11.4	17.1	10.6	4.5	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.9	0.0	48.7	48.1	0.0	18.9	64.4	47.7	27.2	58.9	16.7	17.2
LnGrp LOS	D	A	D	D	A	B	E	D	C	E	B	B
Approach Vol, veh/h		36			932			1426			1658	
Approach Delay, s/veh		48.8			39.6			39.3			34.6	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	30.5	36.4		11.2	5.4	61.4		30.8				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		5.8				
Max Green Setting (Gmax), s	26.4	30.6		10.0	5.0	52.0		32.2				
Max Q Clear Time (g_c+I1), s	25.7	32.6		3.2	2.4	14.5		23.6				
Green Ext Time (p_c), s	0.2	0.0		0.0	0.0	6.6		1.4				

Intersection Summary		
HCM 6th Ctrl Delay		37.5
HCM 6th LOS		D

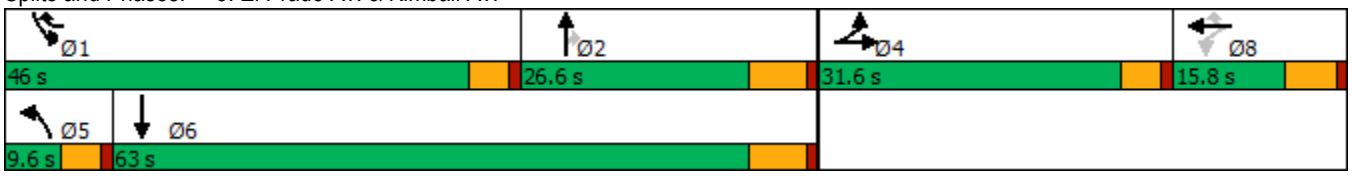
Notes

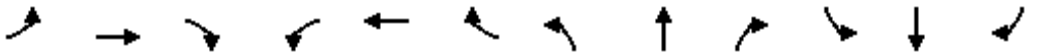
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	34	14	26	5	812	4	270	34	967	341
Future Volume (vph)	34	14	26	5	812	4	270	34	967	341
Turn Type	Split	NA	Perm	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	4	4		8	1	5	2		1	6
Permitted Phases			8		8			2		
Detector Phase	4	4	8	8	1	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	15.8	15.8	9.6	9.6	16.2	16.2	9.6	24.2
Total Split (s)	31.6	31.6	15.8	15.8	46.0	9.6	26.6	26.6	46.0	63.0
Total Split (%)	26.3%	26.3%	13.2%	13.2%	38.3%	8.0%	22.2%	22.2%	38.3%	52.5%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		5.8	4.6	4.6	6.2	6.2	4.6	6.2
Lead/Lag					Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Max	None	None	None	Max	Max
Act Effct Green (s)	13.2	13.2		10.5	49.3	5.3	20.0	20.0	43.5	70.1
Actuated g/C Ratio	0.14	0.14		0.11	0.53	0.06	0.21	0.21	0.47	0.75
v/c Ratio	0.16	0.08		0.22	0.81	0.04	0.75	0.08	0.70	0.28
Control Delay	41.2	33.7		49.8	14.6	52.8	51.3	0.4	28.0	10.8
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.2	33.7		49.8	14.6	52.8	51.3	0.4	28.0	10.8
LOS	D	C		D	B	D	D	A	C	B
Approach Delay		38.5		15.9			45.7			23.4
Approach LOS		D		B			D			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 93.2	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 23.9	Intersection LOS: C
Intersection Capacity Utilization 89.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 8: El Prado Av. & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	14	5	26	5	812	4	270	34	967	341	12
Future Volume (veh/h)	34	14	5	26	5	812	4	270	34	967	341	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	36	15	3	28	5	419	4	287	32	1029	363	12
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	127	114	23	150	27	799	9	325	275	1327	1035	34
Arrive On Green	0.08	0.08	0.08	0.10	0.10	0.10	0.01	0.18	0.18	0.42	0.60	0.60
Sat Flow, veh/h	1619	1456	291	1465	262	1518	1619	1800	1525	3141	1731	57
Grp Volume(v), veh/h	36	0	18	33	0	419	4	287	32	1029	0	375
Grp Sat Flow(s),veh/h/ln	1619	0	1748	1727	0	1518	1619	1800	1525	1570	0	1788
Q Serve(g_s), s	2.1	0.0	0.9	1.7	0.0	10.0	0.2	15.2	1.7	27.6	0.0	10.5
Cycle Q Clear(g_c), s	2.1	0.0	0.9	1.7	0.0	10.0	0.2	15.2	1.7	27.6	0.0	10.5
Prop In Lane	1.00		0.17	0.85		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	127	0	137	176	0	799	9	325	275	1327	0	1069
V/C Ratio(X)	0.28	0.00	0.13	0.19	0.00	0.52	0.47	0.88	0.12	0.78	0.00	0.35
Avail Cap(c_a), veh/h	446	0	482	176	0	799	83	375	318	1327	0	1069
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.5	0.0	42.0	40.3	0.0	15.3	48.6	39.1	33.6	24.3	0.0	10.0
Incr Delay (d2), s/veh	1.2	0.0	0.4	0.5	0.0	0.6	14.2	19.4	0.2	4.5	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.4	0.7	0.0	5.6	0.1	8.1	0.6	10.0	0.0	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.7	0.0	42.5	40.8	0.0	15.9	62.8	58.5	33.8	28.8	0.0	10.9
LnGrp LOS	D	A	D	D	A	B	E	E	C	C	A	B
Approach Vol, veh/h		54			452			323			1404	
Approach Delay, s/veh		43.3			17.7			56.1			24.0	
Approach LOS		D			B			E			C	

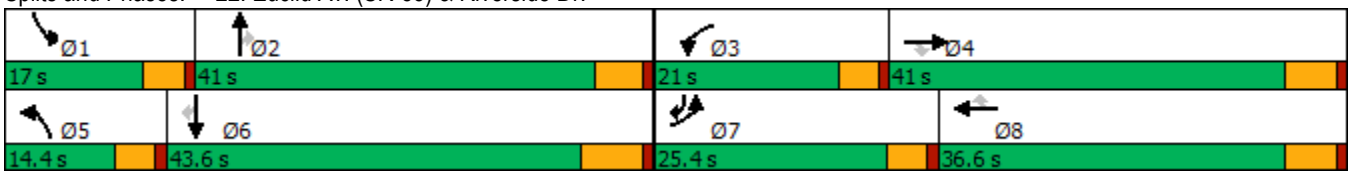
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	46.0	23.9		12.3	5.1	64.8		15.8				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		5.8				
Max Green Setting (Gmax), s	41.4	20.4		27.0	5.0	56.8		10.0				
Max Q Clear Time (g_c+I1), s	29.6	17.2		4.1	2.2	12.5		12.0				
Green Ext Time (p_c), s	1.8	0.5		0.1	0.0	2.1		0.0				

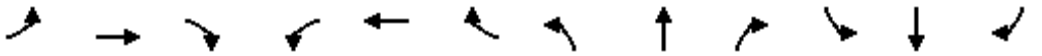
Intersection Summary			
HCM 6th Ctrl Delay		27.9	
HCM 6th LOS		C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	154	467	83	191	417	65	80	1183	246	142	1040	196
Future Volume (vph)	154	467	83	191	417	65	80	1183	246	142	1040	196
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	25.8	25.8	9.6	31.8	31.8	9.6	30.4	30.4	9.6	34.5	9.6
Total Split (s)	25.4	41.0	41.0	21.0	36.6	36.6	14.4	41.0	41.0	17.0	43.6	25.4
Total Split (%)	21.2%	34.2%	34.2%	17.5%	30.5%	30.5%	12.0%	34.2%	34.2%	14.2%	36.3%	21.2%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	None
Act Effct Green (s)	15.6	33.8	33.8	15.9	34.0	34.0	8.8	35.7	35.7	12.1	40.2	57.7
Actuated g/C Ratio	0.13	0.29	0.29	0.13	0.29	0.29	0.07	0.30	0.30	0.10	0.34	0.49
v/c Ratio	0.75	0.94	0.17	0.92	0.44	0.13	0.69	0.83	0.40	0.89	0.65	0.25
Control Delay	70.3	69.6	3.3	93.9	36.6	1.6	82.2	44.5	5.8	99.8	36.4	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.3	69.6	3.3	93.9	36.6	1.6	82.2	44.5	5.8	99.8	36.4	4.9
LOS	E	E	A	F	D	A	F	D	A	F	D	A
Approach Delay		61.9			49.5			40.2			38.5	
Approach LOS		E			D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 117.9	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 44.7	Intersection LOS: D
Intersection Capacity Utilization 87.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 22: Euclid Av. (SR-83) & Riverside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	154	467	83	191	417	65	80	1183	246	142	1040	196
Future Volume (veh/h)	154	467	83	191	417	65	80	1183	246	142	1040	196
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	160	486	61	199	434	52	83	1232	202	148	1083	113
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	185	513	435	221	1051	468	102	1456	452	167	1653	681
Arrive On Green	0.11	0.28	0.28	0.14	0.31	0.31	0.06	0.30	0.30	0.10	0.34	0.34
Sat Flow, veh/h	1619	1800	1525	1619	3420	1524	1619	4914	1525	1619	4914	1506
Grp Volume(v), veh/h	160	486	61	199	434	52	83	1232	202	148	1083	113
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1619	1710	1524	1619	1638	1525	1619	1638	1506
Q Serve(g_s), s	11.7	31.8	3.6	14.5	12.1	2.9	6.1	28.3	12.9	10.8	22.5	5.4
Cycle Q Clear(g_c), s	11.7	31.8	3.6	14.5	12.1	2.9	6.1	28.3	12.9	10.8	22.5	5.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	185	513	435	221	1051	468	102	1456	452	167	1653	681
V/C Ratio(X)	0.87	0.95	0.14	0.90	0.41	0.11	0.81	0.85	0.45	0.89	0.66	0.17
Avail Cap(c_a), veh/h	280	527	447	221	1051	468	132	1456	452	167	1653	681
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.3	42.1	32.0	51.1	33.0	29.8	55.6	39.7	34.3	53.2	33.9	19.6
Incr Delay (d2), s/veh	11.2	26.3	0.1	34.1	0.3	0.1	19.5	6.2	3.2	37.9	2.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	17.2	1.3	7.8	4.9	1.1	2.9	11.5	5.0	6.1	9.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.5	68.4	32.1	85.2	33.3	29.9	75.1	45.9	37.5	91.1	36.0	20.1
LnGrp LOS	E	E	C	F	C	C	E	D	D	F	D	C
Approach Vol, veh/h		707			685			1517			1344	
Approach Delay, s/veh		64.1			48.1			46.4			40.7	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	42.1	21.0	40.0	12.2	46.9	18.3	42.7
Change Period (Y+Rc), s	4.6	* 6.5	4.6	5.8	4.6	6.5	4.6	5.8
Max Green Setting (Gmax), s	12.4	* 36	16.4	35.2	9.8	37.1	20.8	30.8
Max Q Clear Time (g_c+I1), s	12.8	30.3	16.5	33.8	8.1	24.5	13.7	14.1
Green Ext Time (p_c), s	0.0	3.4	0.0	0.5	0.0	6.0	0.1	2.5

Intersection Summary	
HCM 6th Ctrl Delay	47.8
HCM 6th LOS	D

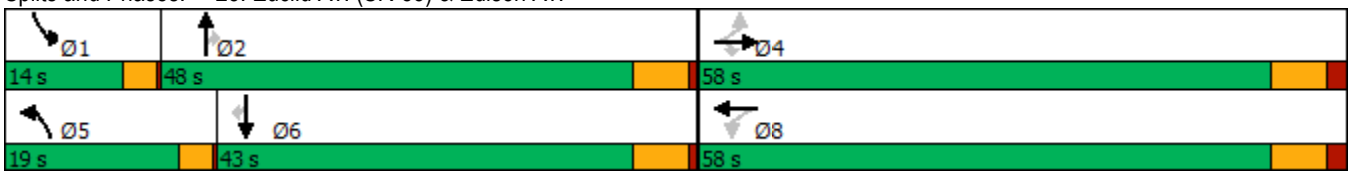
Notes

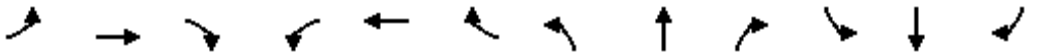
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	281	505	309	44	303	173	1267	74	92	1278	185
Future Volume (vph)	281	505	309	44	303	173	1267	74	92	1278	185
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	46.0	46.0	46.0	49.0	49.0	8.5	29.0	29.0	8.5	40.0	40.0
Total Split (s)	58.0	58.0	58.0	58.0	58.0	19.0	48.0	48.0	14.0	43.0	43.0
Total Split (%)	48.3%	48.3%	48.3%	48.3%	48.3%	15.8%	40.0%	40.0%	11.7%	35.8%	35.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	49.9	49.9	49.9	49.9	49.9	14.9	41.4	41.4	9.6	36.1	36.1
Actuated g/C Ratio	0.43	0.43	0.43	0.43	0.43	0.13	0.35	0.35	0.08	0.31	0.31
v/c Ratio	0.96	0.70	0.40	0.24	0.49	0.89	0.77	0.14	0.73	0.89	0.34
Control Delay	77.8	33.7	6.3	26.4	27.0	91.8	37.7	8.5	84.2	47.5	10.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.8	33.7	6.3	26.4	27.0	91.8	37.7	8.5	84.2	47.5	10.0
LOS	E	C	A	C	C	F	D	A	F	D	A
Approach Delay		37.3			26.9		42.5			45.2	
Approach LOS		D			C		D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 117.4	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 40.8	Intersection LOS: D
Intersection Capacity Utilization 94.2%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 25: Euclid Av. (SR-83) & Edison Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	281	505	309	44	303	50	173	1267	74	92	1278	185
Future Volume (veh/h)	281	505	309	44	303	50	173	1267	74	92	1278	185
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	296	532	243	46	319	47	182	1334	70	97	1345	163
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	334	775	657	189	659	97	206	1755	543	118	1488	462
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.13	0.36	0.36	0.07	0.30	0.30
Sat Flow, veh/h	975	1800	1525	668	1531	226	1619	4914	1521	1619	4914	1525
Grp Volume(v), veh/h	296	532	243	46	0	366	182	1334	70	97	1345	163
Grp Sat Flow(s),veh/h/ln	975	1800	1525	668	0	1756	1619	1638	1521	1619	1638	1525
Q Serve(g_s), s	33.2	28.3	12.8	7.1	0.0	17.8	13.1	28.4	3.7	7.0	31.1	9.9
Cycle Q Clear(g_c), s	51.0	28.3	12.8	35.4	0.0	17.8	13.1	28.4	3.7	7.0	31.1	9.9
Prop In Lane	1.00		1.00	1.00		0.13	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	334	775	657	189	0	756	206	1755	543	118	1488	462
V/C Ratio(X)	0.89	0.69	0.37	0.24	0.00	0.48	0.88	0.76	0.13	0.82	0.90	0.35
Avail Cap(c_a), veh/h	334	775	657	189	0	756	212	1755	543	144	1535	477
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.8	27.3	22.8	41.5	0.0	24.3	50.8	33.6	25.7	54.1	39.6	32.2
Incr Delay (d2), s/veh	23.4	2.5	0.3	0.7	0.0	0.5	30.9	2.0	0.1	22.2	7.8	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.7	12.0	4.4	1.2	0.0	7.1	6.8	10.8	1.3	3.5	12.8	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.3	29.8	23.2	42.2	0.0	24.7	81.8	35.6	25.8	76.3	47.4	32.7
LnGrp LOS	E	C	C	D	A	C	F	D	C	E	D	C
Approach Vol, veh/h		1071			412			1586			1605	
Approach Delay, s/veh		38.6			26.7			40.5			47.6	
Approach LOS		D			C			D			D	

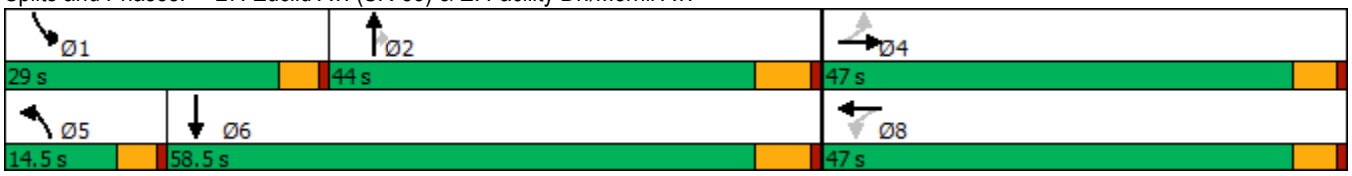
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.1	48.3		58.0	18.6	41.9		58.0				
Change Period (Y+Rc), s	3.5	6.0		7.0	3.5	6.0		7.0				
Max Green Setting (Gmax), s	10.5	42.0		51.0	15.5	37.0		51.0				
Max Q Clear Time (g_c+I1), s	9.0	30.4		53.0	15.1	33.1		37.4				
Green Ext Time (p_c), s	0.0	6.3		0.0	0.0	2.8		2.0				

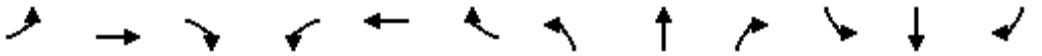
Intersection Summary			
HCM 6th Ctrl Delay		41.3	
HCM 6th LOS		D	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	12	31	254	2	4	1277	260	288	1323
Future Volume (vph)	12	31	254	2	4	1277	260	288	1323
Turn Type	Perm	NA	Perm	NA	Prot	NA	Perm	Prot	NA
Protected Phases		4		8	5	2		1	6
Permitted Phases	4		8				2		
Detector Phase	4	4	8	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	15.0	15.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	10.0	10.0	46.0	46.0	14.5	28.0	28.0	14.5	28.0
Total Split (s)	47.0	47.0	47.0	47.0	14.5	44.0	44.0	29.0	58.5
Total Split (%)	39.2%	39.2%	39.2%	39.2%	12.1%	36.7%	36.7%	24.2%	48.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.5	5.0	5.0	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	4.5	6.0	6.0	4.5	6.0
Lead/Lag					Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min
Act Effct Green (s)		42.0		42.0	10.0	37.7	37.7	24.3	63.6
Actuated g/C Ratio		0.35		0.35	0.08	0.32	0.32	0.20	0.53
v/c Ratio		0.11		1.00	0.03	0.91	0.52	0.96	0.56
Control Delay		21.6		77.8	51.2	48.6	24.1	89.2	20.3
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		21.6		77.8	51.2	48.6	24.1	89.2	20.3
LOS		C		E	D	D	C	F	C
Approach Delay		21.6		77.8		44.5			32.6
Approach LOS		C		E		D			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 119.5	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 43.1	Intersection LOS: D
Intersection Capacity Utilization 91.6%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 27: Euclid Av. (SR-83) & E. Facility Dr./Merrill Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	31	13	254	2	204	4	1277	260	288	1323	1
Future Volume (veh/h)	12	31	13	254	2	204	4	1277	260	288	1323	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	13	34	13	279	2	214	4	1403	221	316	1454	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	134	336	120	336	2	221	17	1537	477	334	2500	0
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.01	0.31	0.31	0.21	0.51	0.00
Sat Flow, veh/h	277	958	341	824	6	632	1619	4914	1525	1619	5076	0
Grp Volume(v), veh/h	60	0	0	495	0	0	4	1403	221	316	1454	0
Grp Sat Flow(s),veh/h/ln	1576	0	0	1461	0	0	1619	1638	1525	1619	1638	0
Q Serve(g_s), s	0.0	0.0	0.0	36.7	0.0	0.0	0.3	32.6	13.8	22.9	24.5	0.0
Cycle Q Clear(g_c), s	2.8	0.0	0.0	39.5	0.0	0.0	0.3	32.6	13.8	22.9	24.5	0.0
Prop In Lane	0.22		0.22	0.56		0.43	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	589	0	0	559	0	0	17	1537	477	334	2500	0
V/C Ratio(X)	0.10	0.00	0.00	0.88	0.00	0.00	0.24	0.91	0.46	0.95	0.58	0.00
Avail Cap(c_a), veh/h	594	0	0	564	0	0	136	1573	488	334	2500	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.0	0.0	0.0	37.6	0.0	0.0	58.3	39.2	32.8	46.5	20.3	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	14.9	0.0	0.0	2.6	8.4	0.7	34.9	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.0	15.5	0.0	0.0	0.1	13.4	4.9	11.9	8.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.0	0.0	0.0	52.5	0.0	0.0	60.9	47.6	33.5	81.3	20.7	0.0
LnGrp LOS	C	A	A	D	A	A	E	D	C	F	C	A
Approach Vol, veh/h		60			495			1628			1770	
Approach Delay, s/veh		26.0			52.5			45.7			31.5	
Approach LOS		C			D			D			C	

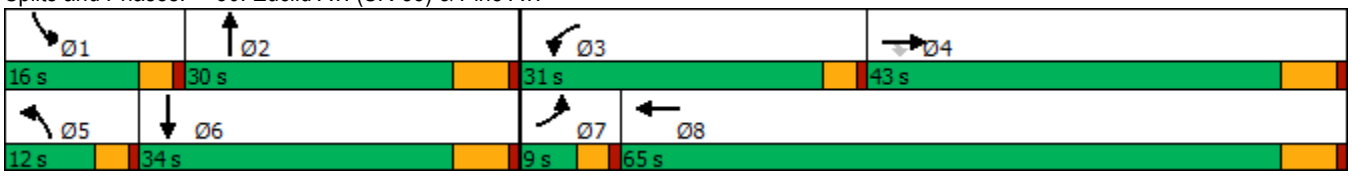
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	29.0	43.1		46.6	5.7	66.4		46.6				
Change Period (Y+Rc), s	4.5	6.0		5.0	4.5	6.0		5.0				
Max Green Setting (Gmax), s	24.5	38.0		42.0	10.0	52.5		42.0				
Max Q Clear Time (g_c+I1), s	24.9	34.6		4.8	2.3	26.5		41.5				
Green Ext Time (p_c), s	0.0	2.5		0.2	0.0	10.5		0.1				

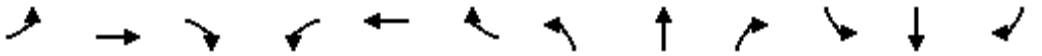
Intersection Summary			
HCM 6th Ctrl Delay		39.9	
HCM 6th LOS		D	

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	5	454	97	581	81	63	765	1172	99	820
Future Volume (vph)	5	454	97	581	81	63	765	1172	99	820
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Free	Prot	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases			4					Free		
Detector Phase	7	4	4	3	8	5	2		1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	9.0	43.0	43.0	9.0	45.0	9.0	11.0		9.0	29.0
Total Split (s)	9.0	43.0	43.0	31.0	65.0	12.0	30.0		16.0	34.0
Total Split (%)	7.5%	35.8%	35.8%	25.8%	54.2%	10.0%	25.0%		13.3%	28.3%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0		3.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	4.0	6.0		4.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Min		None	Min
Act Effct Green (s)	5.1	32.7	32.7	24.8	60.0	7.3	21.2	109.4	10.2	26.6
Actuated g/C Ratio	0.05	0.30	0.30	0.23	0.55	0.07	0.19	1.00	0.09	0.24
v/c Ratio	0.07	0.86	0.18	0.89	0.16	0.60	0.82	0.78	0.67	0.70
Control Delay	57.4	54.1	2.7	58.9	9.8	76.7	51.3	4.0	73.0	43.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.4	54.1	2.7	58.9	9.8	76.7	51.3	4.0	73.0	43.2
LOS	E	D	A	E	A	E	D	A	E	D
Approach Delay		45.2			49.2		24.4			46.4
Approach LOS		D			D		C			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 109.4	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 36.2	Intersection LOS: D
Intersection Capacity Utilization 83.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 30: Euclid Av. (SR-83) & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	454	97	581	81	63	63	765	1172	99	820	4
Future Volume (veh/h)	5	454	97	581	81	63	63	765	1172	99	820	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1600	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	5	463	0	593	83	62	64	781	0	101	837	4
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	11	530		661	490	366	80	953		125	1120	5
Arrive On Green	0.01	0.29	0.00	0.22	0.51	0.51	0.05	0.19	0.00	0.08	0.22	0.22
Sat Flow, veh/h	1619	1800	1525	2956	957	715	1619	4914	1525	1619	5048	24
Grp Volume(v), veh/h	5	463	0	593	0	145	64	781	0	101	543	298
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1478	0	1671	1619	1638	1525	1619	1638	1796
Q Serve(g_s), s	0.3	23.2	0.0	18.5	0.0	4.4	3.7	14.5	0.0	5.8	14.7	14.7
Cycle Q Clear(g_c), s	0.3	23.2	0.0	18.5	0.0	4.4	3.7	14.5	0.0	5.8	14.7	14.7
Prop In Lane	1.00		1.00	1.00		0.43	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	11	530		661	0	855	80	953		125	727	398
V/C Ratio(X)	0.47	0.87		0.90	0.00	0.17	0.80	0.82		0.81	0.75	0.75
Avail Cap(c_a), veh/h	85	701		841	0	1039	136	1242		205	966	530
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.0	31.8	0.0	35.8	0.0	12.4	44.7	36.7	0.0	43.1	34.5	34.5
Incr Delay (d2), s/veh	11.8	10.4	0.0	9.1	0.0	0.1	6.9	2.6	0.0	4.7	1.4	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	10.9	0.0	7.0	0.0	1.5	1.6	5.6	0.0	2.4	5.5	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.8	42.2	0.0	44.9	0.0	12.5	51.6	39.3	0.0	47.8	35.9	37.0
LnGrp LOS	E	D		D	A	B	D	D		D	D	D
Approach Vol, veh/h		468	A		738			845	A		942	
Approach Delay, s/veh		42.4			38.5			40.2			37.5	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	24.4	25.2	34.0	8.7	27.1	4.6	54.6
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	12.0	24.0	27.0	37.0	8.0	28.0	5.0	59.0
Max Q Clear Time (g_c+I1), s	7.8	16.5	20.5	25.2	5.7	16.7	2.3	6.4
Green Ext Time (p_c), s	0.0	2.0	0.7	2.8	0.0	2.4	0.0	1.2

Intersection Summary	
HCM 6th Ctrl Delay	39.3
HCM 6th LOS	D

Notes

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	418	274	568	391	639	934
Future Volume (vph)	418	274	568	391	639	934
Turn Type	Prot	pm+ov	NA	pm+ov	Prot	NA
Protected Phases	8	1	2	8	1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	36.3	11.0	46.3	36.3	11.0	11.0
Total Split (s)	36.3	37.0	46.7	36.3	37.0	83.7
Total Split (%)	30.3%	30.8%	38.9%	30.3%	30.8%	69.8%
Yellow Time (s)	4.3	4.0	4.3	4.3	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.0	5.3	5.3	5.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	Max	None	None	Max	None
Act Effct Green (s)	27.4	65.3	24.2	51.6	32.5	62.0
Actuated g/C Ratio	0.27	0.65	0.24	0.52	0.33	0.62
v/c Ratio	0.86	0.26	0.66	0.47	1.11	0.81
Control Delay	53.9	5.6	38.0	12.5	106.0	21.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.9	5.6	38.0	12.5	106.0	21.5
LOS	D	A	D	B	F	C
Approach Delay	34.8		27.6			55.8
Approach LOS	C		C			E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 99.9	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.11	
Intersection Signal Delay: 42.9	Intersection LOS: D
Intersection Capacity Utilization 87.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 42: Archibald Av. & Limonite Av.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	418	274	568	391	639	934
Future Volume (veh/h)	418	274	568	391	639	934
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	427	230	580	378	652	953
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	462	953	881	796	609	1203
Arrive On Green	0.26	0.26	0.24	0.24	0.34	0.63
Sat Flow, veh/h	1810	1610	3705	1576	1810	1900
Grp Volume(v), veh/h	427	230	580	378	652	953
Grp Sat Flow(s),veh/h/ln	1810	1610	1805	1576	1810	1900
Q Serve(g_s), s	21.9	6.5	13.8	15.0	32.0	35.1
Cycle Q Clear(g_c), s	21.9	6.5	13.8	15.0	32.0	35.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	462	953	881	796	609	1203
V/C Ratio(X)	0.92	0.24	0.66	0.47	1.07	0.79
Avail Cap(c_a), veh/h	590	1066	1571	1097	609	1572
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.5	9.2	32.4	15.7	31.6	12.9
Incr Delay (d2), s/veh	15.8	0.0	1.0	0.5	57.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.9	1.9	5.7	8.2	22.0	11.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	50.3	9.3	33.4	16.2	88.5	14.4
LnGrp LOS	D	A	C	B	F	B
Approach Vol, veh/h	657		958			1605
Approach Delay, s/veh	36.0		26.6			44.5
Approach LOS	D		C			D

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	37.0	28.5			65.5	29.6
Change Period (Y+Rc), s	5.0	5.3			* 5.3	5.3
Max Green Setting (Gmax), s	32.0	41.4			* 79	31.0
Max Q Clear Time (g_c+I1), s	34.0	17.0			37.1	23.9
Green Ext Time (p_c), s	0.0	6.2			4.1	0.4

Intersection Summary	
HCM 6th Ctrl Delay	37.4
HCM 6th LOS	D

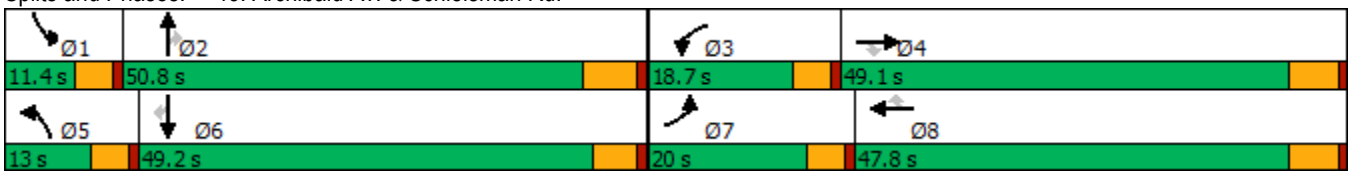
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	434	1065	198	114	342	61	208	637	115	174	700	388
Future Volume (vph)	434	1065	198	114	342	61	208	637	115	174	700	388
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	47.8	47.8	9.6	47.8	47.8	9.6	48.2	48.2	9.6	47.4	47.4
Total Split (s)	20.0	49.1	49.1	18.7	47.8	47.8	13.0	50.8	50.8	11.4	49.2	49.2
Total Split (%)	15.4%	37.8%	37.8%	14.4%	36.8%	36.8%	10.0%	39.1%	39.1%	8.8%	37.8%	37.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	5.2	5.2	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	6.2	6.2	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	None	None	Max	None	None	None	None	None	None	None	None
Act Effct Green (s)	15.8	30.0	30.0	14.5	28.6	28.6	8.6	24.9	24.9	7.0	24.1	24.1
Actuated g/C Ratio	0.16	0.31	0.31	0.15	0.29	0.29	0.09	0.25	0.25	0.07	0.25	0.25
v/c Ratio	0.79	0.69	0.32	0.22	0.23	0.12	0.69	0.49	0.23	0.71	0.56	0.57
Control Delay	52.8	32.8	5.4	42.7	27.2	1.5	58.8	32.5	6.7	64.3	34.1	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.8	32.8	5.4	42.7	27.2	1.5	58.8	32.5	6.7	64.3	34.1	6.7
LOS	D	C	A	D	C	A	E	C	A	E	C	A
Approach Delay		34.7			27.6			35.1			29.8	
Approach LOS		C			C			D			C	

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 98.1	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 32.6	Intersection LOS: C
Intersection Capacity Utilization 85.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 43: Archibald Av. & Schleisman Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	434	1065	198	114	342	61	208	637	115	174	700	388
Future Volume (veh/h)	434	1065	198	114	342	61	208	637	115	174	700	388
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	443	1087	120	116	349	36	212	650	80	178	714	282
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	573	1538	477	524	1467	454	282	1346	418	246	1293	400
Arrive On Green	0.16	0.30	0.30	0.15	0.28	0.28	0.08	0.26	0.26	0.07	0.25	0.25
Sat Flow, veh/h	3510	5187	1610	3510	5187	1607	3510	5187	1610	3510	5187	1604
Grp Volume(v), veh/h	443	1087	120	116	349	36	212	650	80	178	714	282
Grp Sat Flow(s),veh/h/ln	1755	1729	1610	1755	1729	1607	1755	1729	1610	1755	1729	1604
Q Serve(g_s), s	11.4	17.6	5.3	2.7	4.9	1.6	5.6	10.0	3.7	4.7	11.3	15.1
Cycle Q Clear(g_c), s	11.4	17.6	5.3	2.7	4.9	1.6	5.6	10.0	3.7	4.7	11.3	15.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	573	1538	477	524	1467	454	282	1346	418	246	1293	400
V/C Ratio(X)	0.77	0.71	0.25	0.22	0.24	0.08	0.75	0.48	0.19	0.72	0.55	0.70
Avail Cap(c_a), veh/h	573	2378	738	524	2307	715	312	2450	761	253	2406	744
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.8	29.6	25.2	35.3	26.0	24.8	42.5	29.6	27.2	43.0	30.9	32.3
Incr Delay (d2), s/veh	9.8	0.6	0.3	1.0	0.1	0.1	7.4	0.3	0.2	8.1	0.4	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	6.9	2.0	1.2	1.9	0.6	2.6	3.9	1.4	2.2	4.4	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.7	30.2	25.5	36.3	26.1	24.9	49.9	29.9	27.5	51.1	31.2	34.6
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1650			501			942			1174	
Approach Delay, s/veh		34.5			28.4			34.2			35.0	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.2	30.7	18.7	33.8	12.2	29.7	20.0	32.5
Change Period (Y+Rc), s	4.6	6.2	4.6	5.8	4.6	* 6.2	4.6	5.8
Max Green Setting (Gmax), s	6.8	44.6	14.1	43.3	8.4	* 44	15.4	42.0
Max Q Clear Time (g_c+I1), s	6.7	12.0	4.7	19.6	7.6	17.1	13.4	6.9
Green Ext Time (p_c), s	0.0	4.5	0.1	8.0	0.0	5.7	0.2	2.3

Intersection Summary	
HCM 6th Ctrl Delay	33.9
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 7.10:

OPENING YEAR CUMULATIVE (2022) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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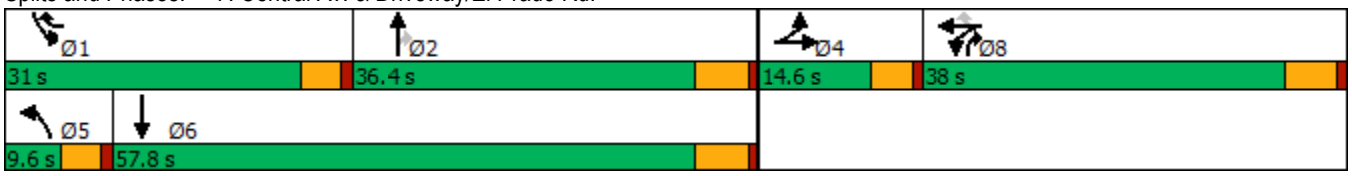
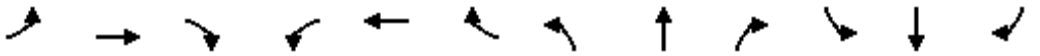
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	2	6	847	4	556	2	865	622	290	739
Future Volume (vph)	2	6	847	4	556	2	865	622	290	739
Turn Type	Split	NA	Split	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	4	4	8	8	1	5	2	8	1	6
Permitted Phases					8			2		
Detector Phase	4	4	8	8	1	5	2	8	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	34.8	34.8	9.6	9.6	27.8	34.8	9.6	24.8
Total Split (s)	14.6	14.6	38.0	38.0	31.0	9.6	36.4	38.0	31.0	57.8
Total Split (%)	12.2%	12.2%	31.7%	31.7%	25.8%	8.0%	30.3%	31.7%	25.8%	48.2%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	5.8	4.6	4.6	5.8	5.8	4.6	5.8
Lead/Lag					Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	None	Max
Act Effct Green (s)	10.1	10.1	32.4	32.4	52.2	5.0	35.5	67.9	13.9	52.4
Actuated g/C Ratio	0.10	0.10	0.32	0.32	0.52	0.05	0.35	0.67	0.14	0.52
v/c Ratio	0.01	0.04	0.87	0.83	0.61	0.02	0.73	0.54	0.68	0.30
Control Delay	45.5	43.1	53.2	47.8	12.0	51.0	34.2	3.6	50.1	15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.5	43.1	53.2	47.8	12.0	51.0	34.2	3.6	50.1	15.1
LOS	D	D	D	D	B	D	C	A	D	B
Approach Delay		43.7		35.3			21.4			24.9
Approach LOS		D		D			C			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 100.6	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 27.3	Intersection LOS: C
Intersection Capacity Utilization 82.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 7: Central Av. & Driveway/El Prado Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	6	1	847	4	556	2	865	622	290	739	11
Future Volume (veh/h)	2	6	1	847	4	556	2	865	622	290	739	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	2	6	0	867	0	350	2	883	461	296	754	8
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	32	36	0	933	0	615	4	1300	1011	362	2468	26
Arrive On Green	0.02	0.02	0.00	0.29	0.00	0.29	0.00	0.38	0.38	0.12	0.49	0.49
Sat Flow, veh/h	1619	1800	0	3238	0	1525	1619	3420	1505	3141	5012	53
Grp Volume(v), veh/h	2	6	0	867	0	350	2	883	461	296	493	269
Grp Sat Flow(s),veh/h/ln	1619	1800	0	1619	0	1525	1619	1710	1505	1570	1638	1789
Q Serve(g_s), s	0.1	0.3	0.0	27.5	0.0	18.8	0.1	22.8	15.5	9.7	9.5	9.5
Cycle Q Clear(g_c), s	0.1	0.3	0.0	27.5	0.0	18.8	0.1	22.8	15.5	9.7	9.5	9.5
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	32	36	0	933	0	615	4	1300	1011	362	1613	881
V/C Ratio(X)	0.06	0.17	0.00	0.93	0.00	0.57	0.46	0.68	0.46	0.82	0.31	0.31
Avail Cap(c_a), veh/h	153	170	0	988	0	641	77	1300	1011	785	1613	881
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.8	50.9	0.0	36.5	0.0	24.4	52.6	27.4	8.4	45.6	16.0	16.0
Incr Delay (d2), s/veh	0.3	0.8	0.0	13.8	0.0	0.6	25.3	2.9	1.5	1.8	0.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.2	0.0	11.9	0.0	6.3	0.1	9.2	10.1	3.7	3.4	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.1	51.7	0.0	50.3	0.0	25.0	77.9	30.2	9.9	47.4	16.5	16.9
LnGrp LOS	D	D	A	D	A	C	E	C	A	D	B	B
Approach Vol, veh/h		8			1217			1346			1058	
Approach Delay, s/veh		51.6			43.1			23.3			25.2	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.8	45.9		6.7	4.9	57.8		36.2				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		5.8				
Max Green Setting (Gmax), s	26.4	30.6		10.0	5.0	52.0		32.2				
Max Q Clear Time (g_c+I1), s	11.7	24.8		2.3	2.1	11.5		29.5				
Green Ext Time (p_c), s	0.4	3.4		0.0	0.0	5.0		0.9				

Intersection Summary			
HCM 6th Ctrl Delay		30.6	
HCM 6th LOS		C	

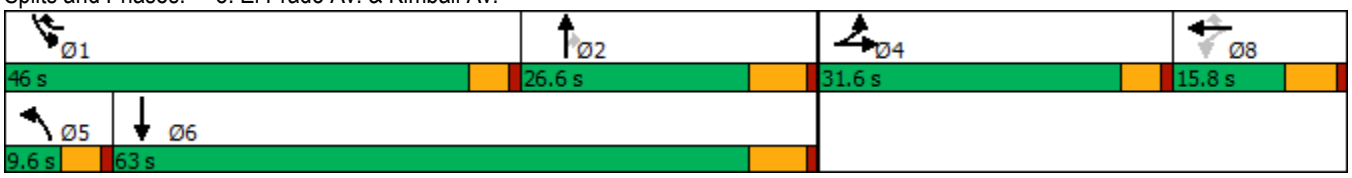
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	23	4	32	16	861	6	294	31	507	261
Future Volume (vph)	23	4	32	16	861	6	294	31	507	261
Turn Type	Split	NA	Perm	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	4	4		8	1	5	2		1	6
Permitted Phases			8		8			2		
Detector Phase	4	4	8	8	1	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	15.8	15.8	9.6	9.6	16.2	16.2	9.6	24.2
Total Split (s)	31.6	31.6	15.8	15.8	46.0	9.6	26.6	26.6	46.0	63.0
Total Split (%)	26.3%	26.3%	13.2%	13.2%	38.3%	8.0%	22.2%	22.2%	38.3%	52.5%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		5.8	4.6	4.6	6.2	6.2	4.6	6.2
Lead/Lag					Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Max	None	None	None	Max	Max
Act Effct Green (s)	13.1	13.1		10.4	51.4	5.2	21.3	21.3	43.1	70.9
Actuated g/C Ratio	0.14	0.14		0.11	0.55	0.06	0.23	0.23	0.46	0.75
v/c Ratio	0.11	0.03		0.32	0.82	0.07	0.76	0.07	0.37	0.24
Control Delay	40.6	31.9		51.8	14.6	53.2	51.8	0.3	21.7	10.2
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.6	31.9		51.8	14.6	53.2	51.8	0.3	21.7	10.2
LOS	D	C		D	B	D	D	A	C	B
Approach Delay		38.6		16.6			47.0			17.4
Approach LOS		D		B			D			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 94.2	
Natural Cycle: 85	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 22.0	Intersection LOS: C
Intersection Capacity Utilization 93.8%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 8: El Prado Av. & Kimball Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	4	3	32	16	861	6	294	31	507	261	40
Future Volume (veh/h)	23	4	3	32	16	861	6	294	31	507	261	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	24	4	2	34	17	509	6	309	33	534	275	39
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	93	65	32	120	60	811	12	345	293	1345	941	134
Arrive On Green	0.06	0.06	0.06	0.10	0.10	0.10	0.01	0.19	0.19	0.43	0.61	0.61
Sat Flow, veh/h	1619	1132	566	1161	581	1525	1619	1800	1525	3141	1537	218
Grp Volume(v), veh/h	24	0	6	51	0	509	6	309	33	534	0	314
Grp Sat Flow(s),veh/h/ln	1619	0	1698	1742	0	1525	1619	1800	1525	1570	0	1755
Q Serve(g_s), s	1.4	0.0	0.3	2.6	0.0	10.0	0.4	16.2	1.7	11.3	0.0	8.2
Cycle Q Clear(g_c), s	1.4	0.0	0.3	2.6	0.0	10.0	0.4	16.2	1.7	11.3	0.0	8.2
Prop In Lane	1.00		0.33	0.67		1.00	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	93	0	97	180	0	811	12	345	293	1345	0	1075
V/C Ratio(X)	0.26	0.00	0.06	0.28	0.00	0.63	0.48	0.89	0.11	0.40	0.00	0.29
Avail Cap(c_a), veh/h	452	0	474	180	0	811	84	380	322	1345	0	1075
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.6	0.0	43.1	40.0	0.0	15.9	47.8	38.1	32.3	19.0	0.0	8.8
Incr Delay (d2), s/veh	1.5	0.0	0.3	0.9	0.0	1.5	10.3	21.5	0.2	0.9	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.1	1.1	0.0	7.2	0.2	8.7	0.6	3.9	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.1	0.0	43.4	40.9	0.0	17.5	58.1	59.6	32.4	19.9	0.0	9.5
LnGrp LOS	D	A	D	D	A	B	E	E	C	B	A	A
Approach Vol, veh/h		30			560			348			848	
Approach Delay, s/veh		44.7			19.6			57.0			16.1	
Approach LOS		D			B			E			B	

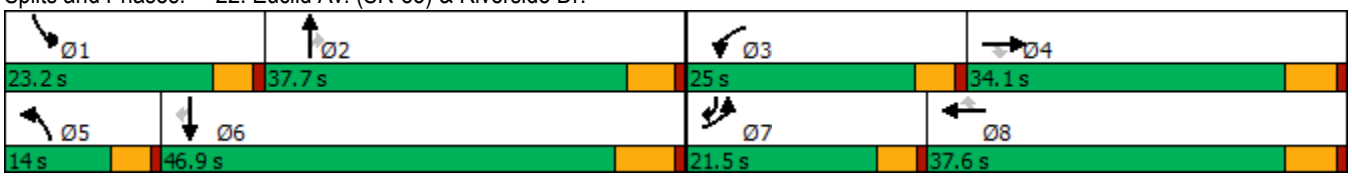
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	46.0	24.8		10.1	5.3	65.4		15.8				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		5.8				
Max Green Setting (Gmax), s	41.4	20.4		27.0	5.0	56.8		10.0				
Max Q Clear Time (g_c+I1), s	13.3	18.2		3.4	2.4	10.2		12.0				
Green Ext Time (p_c), s	0.9	0.4		0.1	0.0	1.7		0.0				

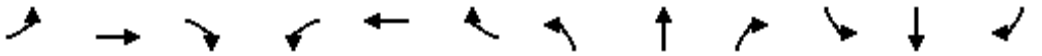
Intersection Summary												
HCM 6th Ctrl Delay			25.6									
HCM 6th LOS			C									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	162	330	66	202	517	122	76	1048	166	184	1174	161
Future Volume (vph)	162	330	66	202	517	122	76	1048	166	184	1174	161
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	25.8	25.8	9.6	31.8	31.8	9.6	30.4	30.4	9.6	34.5	9.6
Total Split (s)	21.5	34.1	34.1	25.0	37.6	37.6	14.0	37.7	37.7	23.2	46.9	21.5
Total Split (%)	17.9%	28.4%	28.4%	20.8%	31.3%	31.3%	11.7%	31.4%	31.4%	19.3%	39.1%	17.9%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	None
Act Effct Green (s)	14.8	25.1	25.1	17.8	28.1	28.1	8.4	33.0	33.0	16.3	42.3	59.0
Actuated g/C Ratio	0.13	0.22	0.22	0.16	0.25	0.25	0.07	0.29	0.29	0.14	0.38	0.52
v/c Ratio	0.81	0.87	0.15	0.84	0.64	0.26	0.67	0.77	0.31	0.83	0.67	0.20
Control Delay	77.0	65.1	0.7	74.6	42.0	4.1	79.1	42.0	6.6	76.6	33.7	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.0	65.1	0.7	74.6	42.0	4.1	79.1	42.0	6.6	76.6	33.7	5.1
LOS	E	E	A	E	D	A	E	D	A	E	C	A
Approach Delay		61.0			44.4			39.6			35.9	
Approach LOS		E			D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 112.8	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 42.0	Intersection LOS: D
Intersection Capacity Utilization 80.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 22: Euclid Av. (SR-83) & Riverside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	162	330	66	202	517	122	76	1048	166	184	1174	161
Future Volume (veh/h)	162	330	66	202	517	122	76	1048	166	184	1174	161
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	171	347	53	213	544	99	80	1103	135	194	1236	110
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	198	388	329	240	827	369	99	1473	457	221	1843	758
Arrive On Green	0.12	0.22	0.22	0.15	0.24	0.24	0.06	0.30	0.30	0.14	0.38	0.38
Sat Flow, veh/h	1619	1800	1525	1619	3420	1525	1619	4914	1525	1619	4914	1524
Grp Volume(v), veh/h	171	347	53	213	544	99	80	1103	135	194	1236	110
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1619	1710	1525	1619	1638	1525	1619	1638	1524
Q Serve(g_s), s	11.2	20.2	3.0	13.9	15.4	5.7	5.3	21.8	7.3	12.7	22.6	4.2
Cycle Q Clear(g_c), s	11.2	20.2	3.0	13.9	15.4	5.7	5.3	21.8	7.3	12.7	22.6	4.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	198	388	329	240	827	369	99	1473	457	221	1843	758
V/C Ratio(X)	0.86	0.89	0.16	0.89	0.66	0.27	0.81	0.75	0.30	0.88	0.67	0.15
Avail Cap(c_a), veh/h	254	473	401	307	1010	450	141	1473	457	280	1843	758
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.4	41.1	34.3	45.0	36.8	33.1	49.9	34.0	29.0	45.6	28.1	14.7
Incr Delay (d2), s/veh	17.9	16.9	0.2	18.7	1.2	0.4	13.2	3.5	1.6	18.9	2.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	10.4	1.1	6.6	6.3	2.1	2.4	8.5	2.8	6.1	8.8	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.3	57.9	34.6	63.7	38.0	33.5	63.1	37.6	30.6	64.6	30.1	15.1
LnGrp LOS	E	E	C	E	D	C	E	D	C	E	C	B
Approach Vol, veh/h		571			856			1318			1540	
Approach Delay, s/veh		57.7			43.9			38.4			33.3	
Approach LOS		E			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.3	38.8	20.6	29.0	11.2	46.9	17.8	31.8
Change Period (Y+Rc), s	4.6	* 6.5	4.6	5.8	4.6	6.5	4.6	5.8
Max Green Setting (Gmax), s	18.6	* 32	20.4	28.3	9.4	40.4	16.9	31.8
Max Q Clear Time (g_c+I1), s	14.7	23.8	15.9	22.2	7.3	24.6	13.2	17.4
Green Ext Time (p_c), s	0.1	4.4	0.1	1.0	0.0	7.8	0.1	3.1

Intersection Summary	
HCM 6th Ctrl Delay	40.2
HCM 6th LOS	D

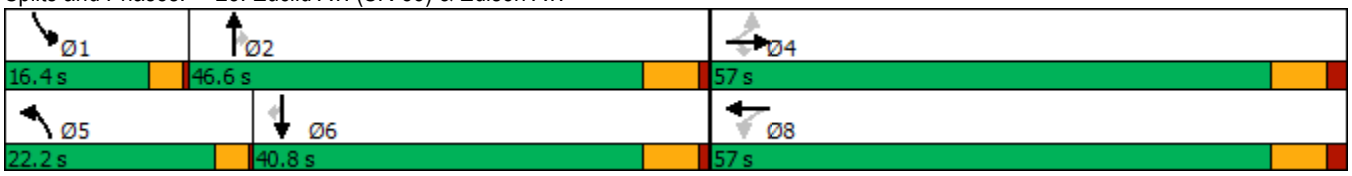
Notes

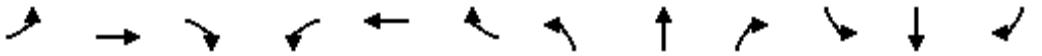
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	165	284	127	38	451	231	1017	41	79	1041	177
Future Volume (vph)	165	284	127	38	451	231	1017	41	79	1041	177
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	46.0	46.0	46.0	49.0	49.0	8.5	29.0	29.0	8.5	40.0	40.0
Total Split (s)	57.0	57.0	57.0	57.0	57.0	22.2	46.6	46.6	16.4	40.8	40.8
Total Split (%)	47.5%	47.5%	47.5%	47.5%	47.5%	18.5%	38.8%	38.8%	13.7%	34.0%	34.0%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	49.8	49.8	49.8	49.8	49.8	18.7	42.8	42.8	9.9	32.0	32.0
Actuated g/C Ratio	0.43	0.43	0.43	0.43	0.43	0.16	0.37	0.37	0.08	0.27	0.27
v/c Ratio	0.93	0.39	0.18	0.11	0.72	0.94	0.59	0.07	0.60	0.81	0.34
Control Delay	86.6	25.5	4.3	22.4	34.6	91.6	32.5	2.8	70.5	45.0	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.6	25.5	4.3	22.4	34.6	91.6	32.5	2.8	70.5	45.0	7.3
LOS	F	C	A	C	C	F	C	A	E	D	A
Approach Delay		38.3			33.7		42.2			41.4	
Approach LOS		D			C		D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 117	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 40.0	Intersection LOS: D
Intersection Capacity Utilization 95.7%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 25: Euclid Av. (SR-83) & Edison Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	284	127	38	451	70	231	1017	41	79	1041	177
Future Volume (veh/h)	165	284	127	38	451	70	231	1017	41	79	1041	177
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	172	296	77	40	470	68	241	1059	35	82	1084	133
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	213	777	658	372	664	96	261	1784	554	102	1299	393
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.16	0.36	0.36	0.06	0.26	0.26
Sat Flow, veh/h	832	1800	1524	968	1537	222	1619	4914	1525	1619	4914	1488
Grp Volume(v), veh/h	172	296	77	40	0	538	241	1059	35	82	1084	133
Grp Sat Flow(s),veh/h/ln	832	1800	1524	968	0	1760	1619	1638	1525	1619	1638	1488
Q Serve(g_s), s	21.0	13.0	3.5	3.4	0.0	29.0	17.0	20.3	1.7	5.8	24.1	8.4
Cycle Q Clear(g_c), s	50.0	13.0	3.5	16.3	0.0	29.0	17.0	20.3	1.7	5.8	24.1	8.4
Prop In Lane	1.00		1.00	1.00		0.13	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	213	777	658	372	0	760	261	1784	554	102	1299	393
V/C Ratio(X)	0.81	0.38	0.12	0.11	0.00	0.71	0.92	0.59	0.06	0.81	0.83	0.34
Avail Cap(c_a), veh/h	213	777	658	372	0	760	261	1784	554	180	1477	447
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.7	22.4	19.7	27.9	0.0	26.9	47.8	29.9	24.0	53.6	40.2	34.4
Incr Delay (d2), s/veh	20.0	0.3	0.1	0.1	0.0	3.0	34.9	0.5	0.0	5.6	3.9	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	5.3	1.2	0.8	0.0	12.0	9.0	7.5	0.6	2.4	9.6	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.7	22.7	19.8	28.1	0.0	30.0	82.7	30.5	24.1	59.2	44.1	34.9
LnGrp LOS	E	C	B	C	A	C	F	C	C	E	D	C
Approach Vol, veh/h		545			578			1335			1299	
Approach Delay, s/veh		36.8			29.8			39.7			44.1	
Approach LOS		D			C			D			D	

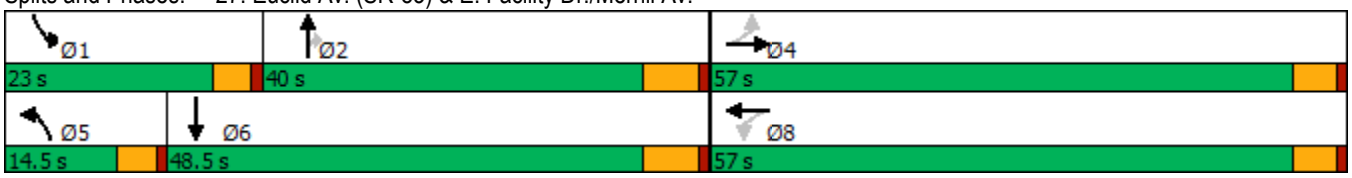
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.8	48.0		57.0	22.2	36.6		57.0				
Change Period (Y+Rc), s	3.5	6.0		7.0	3.5	6.0		7.0				
Max Green Setting (Gmax), s	12.9	40.6		50.0	18.7	34.8		50.0				
Max Q Clear Time (g_c+I1), s	7.8	22.3		52.0	19.0	26.1		31.0				
Green Ext Time (p_c), s	0.0	6.3		0.0	0.0	4.4		3.2				

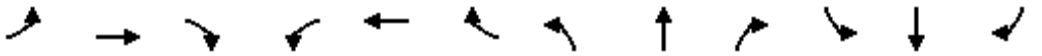
Intersection Summary												
HCM 6th Ctrl Delay			39.3									
HCM 6th LOS			D									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	4	8	257	50	11	1153	204	187	1150
Future Volume (vph)	4	8	257	50	11	1153	204	187	1150
Turn Type	Perm	NA	Perm	NA	Prot	NA	Perm	Prot	NA
Protected Phases		4		8	5	2		1	6
Permitted Phases	4		8				2		
Detector Phase	4	4	8	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	15.0	15.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	10.0	10.0	46.0	46.0	14.5	28.0	28.0	14.5	28.0
Total Split (s)	57.0	57.0	57.0	57.0	14.5	40.0	40.0	23.0	48.5
Total Split (%)	47.5%	47.5%	47.5%	47.5%	12.1%	33.3%	33.3%	19.2%	40.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.5	5.0	5.0	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	4.5	6.0	6.0	4.5	6.0
Lead/Lag					Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min
Act Effct Green (s)		46.4		46.4	10.2	31.9	31.9	16.2	50.0
Actuated g/C Ratio		0.42		0.42	0.09	0.29	0.29	0.15	0.45
v/c Ratio		0.05		0.94	0.07	0.84	0.41	0.82	0.55
Control Delay		11.2		53.6	52.1	44.0	20.4	74.0	24.6
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		11.2		53.6	52.1	44.0	20.4	74.0	24.6
LOS		B		D	D	D	C	E	C
Approach Delay		11.2		53.6		40.6			31.3
Approach LOS		B		D		D			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 110.3	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 38.7	Intersection LOS: D
Intersection Capacity Utilization 89.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 27: Euclid Av. (SR-83) & E. Facility Dr./Merrill Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	8	18	257	50	259	11	1153	204	187	1150	41
Future Volume (veh/h)	4	8	18	257	50	259	11	1153	204	187	1150	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	4	8	18	265	52	240	11	1189	167	193	1186	28
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	99	196	379	338	56	256	43	1485	461	223	2041	48
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.03	0.30	0.30	0.14	0.41	0.41
Sat Flow, veh/h	142	492	951	711	140	644	1619	4914	1525	1619	4935	116
Grp Volume(v), veh/h	30	0	0	557	0	0	11	1189	167	193	787	427
Grp Sat Flow(s),veh/h/ln	1585	0	0	1494	0	0	1619	1638	1525	1619	1638	1776
Q Serve(g_s), s	0.0	0.0	0.0	33.1	0.0	0.0	0.6	21.3	8.2	11.2	17.8	17.8
Cycle Q Clear(g_c), s	1.1	0.0	0.0	34.2	0.0	0.0	0.6	21.3	8.2	11.2	17.8	17.8
Prop In Lane	0.13		0.60	0.48		0.43	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	674	0	0	650	0	0	43	1485	461	223	1355	734
V/C Ratio(X)	0.04	0.00	0.00	0.86	0.00	0.00	0.26	0.80	0.36	0.86	0.58	0.58
Avail Cap(c_a), veh/h	893	0	0	866	0	0	169	1745	542	313	1454	788
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.7	0.0	0.0	27.5	0.0	0.0	45.7	30.8	26.2	40.4	21.7	21.7
Incr Delay (d2), s/veh	0.0	0.0	0.0	5.2	0.0	0.0	1.2	2.4	0.5	12.6	0.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	11.8	0.0	0.0	0.3	7.9	2.8	4.9	6.1	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.7	0.0	0.0	32.8	0.0	0.0	46.8	33.1	26.7	53.0	22.2	22.6
LnGrp LOS	B	A	A	C	A	A	D	C	C	D	C	C
Approach Vol, veh/h		30			557			1367			1407	
Approach Delay, s/veh		17.7			32.8			32.5			26.5	
Approach LOS		B			C			C			C	

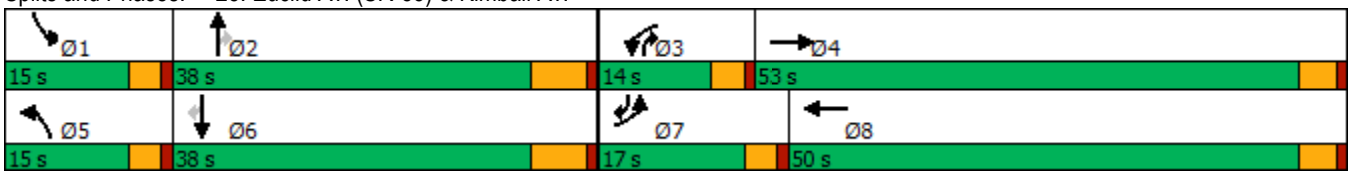
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.7	34.9		43.1	7.0	45.6		43.1				
Change Period (Y+Rc), s	4.5	6.0		5.0	4.5	6.0		5.0				
Max Green Setting (Gmax), s	18.5	34.0		52.0	10.0	42.5		52.0				
Max Q Clear Time (g_c+I1), s	13.2	23.3		3.1	2.6	19.8		36.2				
Green Ext Time (p_c), s	0.1	5.6		0.1	0.0	7.4		1.9				

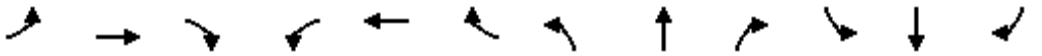
Intersection Summary			
HCM 6th Ctrl Delay		29.9	
HCM 6th LOS		C	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	135	259	55	780	104	868	49	224	722	404
Future Volume (vph)	135	259	55	780	104	868	49	224	722	404
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	3	8	5	2	3	1	6	7
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	7
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	14.0	49.5	14.0	45.5	14.0	36.0	14.0	9.0	33.0	14.0
Total Split (s)	17.0	53.0	14.0	50.0	15.0	38.0	14.0	15.0	38.0	17.0
Total Split (%)	14.2%	44.2%	11.7%	41.7%	12.5%	31.7%	11.7%	12.5%	31.7%	14.2%
Yellow Time (s)	3.0	3.5	3.0	3.5	3.0	5.0	3.0	3.0	5.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.5	4.0	4.5	4.0	6.0	4.0	4.0	6.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	None	Min	None
Act Effct Green (s)	10.9	43.5	10.2	39.2	10.7	25.6	41.8	10.7	25.6	38.5
Actuated g/C Ratio	0.10	0.41	0.10	0.37	0.10	0.24	0.40	0.10	0.24	0.37
v/c Ratio	0.45	0.22	0.36	0.90	0.65	0.74	0.08	0.76	0.62	0.67
Control Delay	52.3	20.8	56.3	40.1	67.8	41.6	6.6	65.6	38.4	25.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.3	20.8	56.3	40.1	67.8	41.6	6.6	65.6	38.4	25.1
LOS	D	C	E	D	E	D	A	E	D	C
Approach Delay		30.6		40.9		42.6			39.0	
Approach LOS		C		D		D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 105.2	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 39.5	Intersection LOS: D
Intersection Capacity Utilization 82.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 28: Euclid Av. (SR-83) & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	259	40	55	780	323	104	868	49	224	722	404
Future Volume (veh/h)	135	259	40	55	780	323	104	868	49	224	722	404
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1600	1800	1800	1700	1800	1800	1700	1800	1800	1600	1800	1800
Adj Flow Rate, veh/h	138	264	32	56	796	294	106	886	38	229	737	283
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	304	1194	143	132	898	331	160	1168	487	288	1160	512
Arrive On Green	0.10	0.39	0.39	0.08	0.37	0.37	0.10	0.24	0.24	0.10	0.24	0.24
Sat Flow, veh/h	2956	3075	369	1619	2445	902	1619	4914	1525	2956	4914	1506
Grp Volume(v), veh/h	138	146	150	56	556	534	106	886	38	229	737	283
Grp Sat Flow(s),veh/h/ln	1478	1710	1734	1619	1710	1638	1619	1638	1525	1478	1638	1506
Q Serve(g_s), s	4.2	5.4	5.5	3.1	28.9	29.0	6.0	15.9	1.6	7.2	12.8	14.5
Cycle Q Clear(g_c), s	4.2	5.4	5.5	3.1	28.9	29.0	6.0	15.9	1.6	7.2	12.8	14.5
Prop In Lane	1.00		0.21	1.00		0.55	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	304	664	673	132	628	601	160	1168	487	288	1160	512
V/C Ratio(X)	0.45	0.22	0.22	0.43	0.89	0.89	0.66	0.76	0.08	0.79	0.64	0.55
Avail Cap(c_a), veh/h	405	875	887	171	821	786	188	1658	639	343	1658	665
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.0	19.4	19.4	41.4	28.1	28.2	41.2	33.6	22.6	41.9	32.5	25.5
Incr Delay (d2), s/veh	0.4	0.2	0.2	0.8	7.9	8.3	4.2	1.3	0.1	8.6	0.6	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	2.0	2.1	1.2	12.2	11.8	2.4	5.9	0.6	2.8	4.7	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.4	19.5	19.6	42.3	36.0	36.5	45.4	34.9	22.6	50.5	33.1	26.5
LnGrp LOS	D	B	B	D	D	D	D	C	C	D	C	C
Approach Vol, veh/h		434			1146			1030			1249	
Approach Delay, s/veh		26.2			36.6			35.5			34.8	
Approach LOS		C			D			D			C	

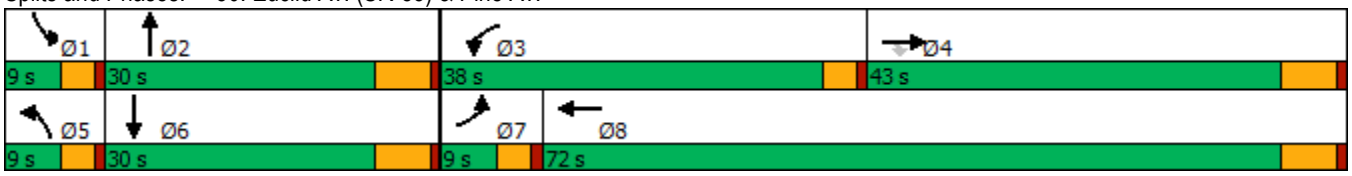
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.2	28.5	11.7	41.3	13.4	28.4	13.7	39.3
Change Period (Y+Rc), s	4.0	6.0	4.0	4.5	4.0	6.0	4.0	4.5
Max Green Setting (Gmax), s	11.0	32.0	10.0	48.5	11.0	32.0	13.0	45.5
Max Q Clear Time (g_c+I1), s	9.2	17.9	5.1	7.5	8.0	16.5	6.2	31.0
Green Ext Time (p_c), s	0.1	4.6	0.0	1.6	0.0	4.8	0.1	3.8

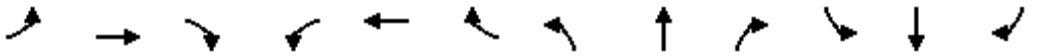
Intersection Summary	
HCM 6th Ctrl Delay	34.5
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	8	191	53	1080	351	66	760	707	58	705
Future Volume (vph)	8	191	53	1080	351	66	760	707	58	705
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Free	Prot	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases			4					Free		
Detector Phase	7	4	4	3	8	5	2		1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	9.0	43.0	43.0	9.0	45.0	9.0	11.0		9.0	29.0
Total Split (s)	9.0	43.0	43.0	38.0	72.0	9.0	30.0		9.0	30.0
Total Split (%)	7.5%	35.8%	35.8%	31.7%	60.0%	7.5%	25.0%		7.5%	25.0%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0		3.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	4.0	6.0		4.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Min		None	Min
Act Effct Green (s)	5.1	19.0	19.0	34.5	56.1	5.1	19.6	98.5	5.1	19.6
Actuated g/C Ratio	0.05	0.19	0.19	0.35	0.57	0.05	0.20	1.00	0.05	0.20
v/c Ratio	0.10	0.57	0.14	1.08	0.45	0.82	0.80	0.48	0.72	0.76
Control Delay	53.4	42.4	0.7	84.2	14.3	109.7	45.3	1.1	93.8	43.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.4	42.4	0.7	84.2	14.3	109.7	45.3	1.1	93.8	43.6
LOS	D	D	A	F	B	F	D	A	F	D
Approach Delay		33.9			64.0		27.7			47.3
Approach LOS		C			E		C			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 98.5	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.08	
Intersection Signal Delay: 45.3	Intersection LOS: D
Intersection Capacity Utilization 83.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 30: Euclid Av. (SR-83) & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	191	53	1080	351	88	66	760	707	58	705	17
Future Volume (veh/h)	8	191	53	1080	351	88	66	760	707	58	705	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1600	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	8	197	0	1113	362	89	68	784	0	60	727	14
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	16	259		1139	724	178	84	977		74	955	18
Arrive On Green	0.01	0.14	0.00	0.39	0.52	0.52	0.05	0.20	0.00	0.05	0.19	0.19
Sat Flow, veh/h	1619	1800	1525	2956	1395	343	1619	4914	1525	1619	4963	95
Grp Volume(v), veh/h	8	197	0	1113	0	451	68	784	0	60	479	262
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1478	0	1738	1619	1638	1525	1619	1638	1783
Q Serve(g_s), s	0.4	9.3	0.0	32.8	0.0	14.9	3.7	13.4	0.0	3.2	12.2	12.3
Cycle Q Clear(g_c), s	0.4	9.3	0.0	32.8	0.0	14.9	3.7	13.4	0.0	3.2	12.2	12.3
Prop In Lane	1.00		1.00	1.00		0.20	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	16	259		1139	0	902	84	977		74	630	343
V/C Ratio(X)	0.49	0.76		0.98	0.00	0.50	0.81	0.80		0.81	0.76	0.76
Avail Cap(c_a), veh/h	92	755		1139	0	1300	92	1336		92	891	485
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.5	36.3	0.0	26.8	0.0	13.8	41.4	33.7	0.0	41.7	33.7	33.7
Incr Delay (d2), s/veh	8.2	6.5	0.0	21.2	0.0	0.6	33.6	1.8	0.0	28.3	1.4	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	4.3	0.0	13.4	0.0	5.0	2.2	5.0	0.0	1.8	4.5	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.7	42.8	0.0	48.0	0.0	14.4	75.0	35.5	0.0	70.1	35.1	36.3
LnGrp LOS	D	D		D	A	B	E	D		E	D	D
Approach Vol, veh/h		205	A		1564			852	A		801	
Approach Delay, s/veh		43.1			38.3			38.6			38.1	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	23.5	38.0	18.7	8.6	23.0	4.9	51.8
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	5.0	24.0	34.0	37.0	5.0	24.0	5.0	66.0
Max Q Clear Time (g_c+I1), s	5.2	15.4	34.8	11.3	5.7	14.3	2.4	16.9
Green Ext Time (p_c), s	0.0	2.1	0.0	1.4	0.0	1.9	0.0	4.2

Intersection Summary	
HCM 6th Ctrl Delay	38.6
HCM 6th LOS	D

Notes

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	338	855	870	343	214	515
Future Volume (vph)	338	855	870	343	214	515
Turn Type	Prot	pm+ov	NA	pm+ov	Prot	NA
Protected Phases	8	1	2	8	1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	36.3	11.0	46.3	36.3	11.0	11.0
Total Split (s)	36.3	37.0	46.7	36.3	37.0	83.7
Total Split (%)	30.3%	30.8%	38.9%	30.3%	30.8%	69.8%
Yellow Time (s)	4.3	4.0	4.3	4.3	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.0	5.3	5.3	5.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	Max	None	None	Max	None
Act Effct Green (s)	24.1	56.9	33.6	63.1	32.5	71.5
Actuated g/C Ratio	0.23	0.54	0.32	0.60	0.31	0.67
v/c Ratio	0.86	1.02	0.79	0.32	0.40	0.42
Control Delay	60.7	58.4	39.1	1.7	34.8	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.7	58.4	39.1	1.7	34.8	9.7
LOS	E	E	D	A	C	A
Approach Delay	59.0		28.5			17.1
Approach LOS	E		C			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 106	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 37.5	Intersection LOS: D
Intersection Capacity Utilization 85.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 42: Archibald Av. & Limonite Av.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	338	855	870	343	214	515
Future Volume (veh/h)	338	855	870	343	214	515
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	352	835	906	310	223	536
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	495	895	1107	934	511	1203
Arrive On Green	0.27	0.27	0.31	0.31	0.28	0.63
Sat Flow, veh/h	1810	1610	3705	1610	1810	1900
Grp Volume(v), veh/h	352	835	906	310	223	536
Grp Sat Flow(s),veh/h/ln	1810	1610	1805	1610	1810	1900
Q Serve(g_s), s	19.9	31.0	26.3	11.3	11.4	16.3
Cycle Q Clear(g_c), s	19.9	31.0	26.3	11.3	11.4	16.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	495	895	1107	934	511	1203
V/C Ratio(X)	0.71	0.93	0.82	0.33	0.44	0.45
Avail Cap(c_a), veh/h	495	895	1319	1029	511	1319
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.1	23.2	36.4	12.4	33.3	10.6
Incr Delay (d2), s/veh	4.1	16.0	3.8	0.2	2.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	21.7	11.5	7.0	5.1	5.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	41.2	39.3	40.2	12.6	36.0	10.7
LnGrp LOS	D	D	D	B	D	B
Approach Vol, veh/h	1187		1216			759
Approach Delay, s/veh	39.8		33.1			18.2
Approach LOS	D		C			B

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	37.0	40.0			77.0	36.3
Change Period (Y+Rc), s	5.0	5.3			* 5.3	5.3
Max Green Setting (Gmax), s	32.0	41.4			* 79	31.0
Max Q Clear Time (g_c+I1), s	13.4	28.3			18.3	33.0
Green Ext Time (p_c), s	0.5	6.4			1.8	0.0

Intersection Summary	
HCM 6th Ctrl Delay	32.1
HCM 6th LOS	C

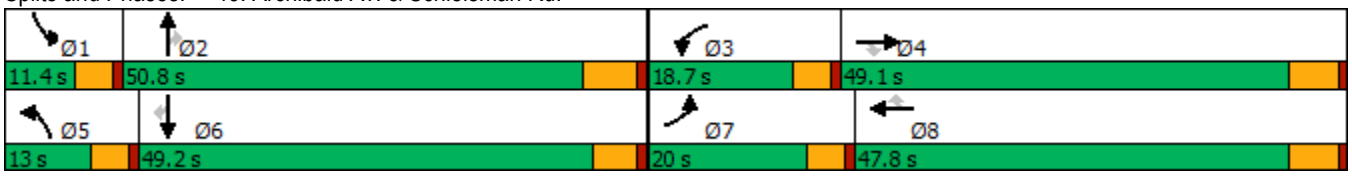
Notes

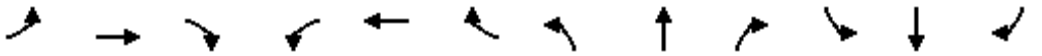
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	460	409	135	263	753	149	272	839	228	110	472	500
Future Volume (vph)	460	409	135	263	753	149	272	839	228	110	472	500
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	47.8	47.8	9.6	47.8	47.8	9.6	48.2	48.2	9.6	47.4	47.4
Total Split (s)	20.0	49.1	49.1	18.7	47.8	47.8	13.0	50.8	50.8	11.4	49.2	49.2
Total Split (%)	15.4%	37.8%	37.8%	14.4%	36.8%	36.8%	10.0%	39.1%	39.1%	8.8%	37.8%	37.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	5.2	5.2	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	6.2	6.2	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	None	None	Max	None	None	None	None	None	None	None	None
Act Effct Green (s)	15.9	26.7	26.7	14.6	25.3	25.3	8.7	30.0	30.0	6.7	28.9	28.9
Actuated g/C Ratio	0.16	0.27	0.27	0.15	0.25	0.25	0.09	0.30	0.30	0.07	0.29	0.29
v/c Ratio	0.92	0.33	0.28	0.57	0.64	0.33	0.99	0.60	0.38	0.52	0.35	0.86
Control Delay	66.4	30.4	6.4	48.4	35.8	10.4	98.4	31.6	5.3	58.0	28.7	31.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.4	30.4	6.4	48.4	35.8	10.4	98.4	31.6	5.3	58.0	28.7	31.2
LOS	E	C	A	D	D	B	F	C	A	E	C	C
Approach Delay		43.7			35.4			40.7			32.9	
Approach LOS		D			D			D			C	

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 99.9	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 38.1	Intersection LOS: D
Intersection Capacity Utilization 80.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 43: Archibald Av. & Schleisman Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	460	409	135	263	753	149	272	839	228	110	472	500
Future Volume (veh/h)	460	409	135	263	753	149	272	839	228	110	472	500
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	511	454	86	292	837	89	302	932	180	122	524	434
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	534	1291	393	489	1225	375	291	1816	564	184	1657	507
Arrive On Green	0.15	0.25	0.25	0.14	0.24	0.24	0.08	0.35	0.35	0.05	0.32	0.32
Sat Flow, veh/h	3510	5187	1580	3510	5187	1589	3510	5187	1610	3510	5187	1588
Grp Volume(v), veh/h	511	454	86	292	837	89	302	932	180	122	524	434
Grp Sat Flow(s),veh/h/ln	1755	1729	1580	1755	1729	1589	1755	1729	1610	1755	1729	1588
Q Serve(g_s), s	14.6	7.3	4.4	7.9	14.9	4.6	8.4	14.4	8.3	3.5	7.7	25.9
Cycle Q Clear(g_c), s	14.6	7.3	4.4	7.9	14.9	4.6	8.4	14.4	8.3	3.5	7.7	25.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	534	1291	393	489	1225	375	291	1816	564	184	1657	507
V/C Ratio(X)	0.96	0.35	0.22	0.60	0.68	0.24	1.04	0.51	0.32	0.66	0.32	0.86
Avail Cap(c_a), veh/h	534	2218	676	489	2152	659	291	2285	709	236	2244	687
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	31.3	30.2	40.9	35.2	31.3	46.4	26.1	24.1	47.1	26.1	32.3
Incr Delay (d2), s/veh	29.6	0.2	0.3	5.3	0.7	0.3	62.6	0.2	0.3	2.1	0.1	7.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	2.9	1.6	3.6	6.0	1.7	6.0	5.5	3.0	1.5	3.0	10.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.2	31.5	30.5	46.2	35.9	31.6	109.1	26.3	24.4	49.2	26.2	40.2
LnGrp LOS	E	C	C	D	D	C	F	C	C	D	C	D
Approach Vol, veh/h		1051			1218			1414			1080	
Approach Delay, s/veh		51.2			38.1			43.7			34.4	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	41.6	18.7	31.0	13.0	38.5	20.0	29.7
Change Period (Y+Rc), s	4.6	6.2	4.6	5.8	4.6	* 6.2	4.6	5.8
Max Green Setting (Gmax), s	6.8	44.6	14.1	43.3	8.4	* 44	15.4	42.0
Max Q Clear Time (g_c+I1), s	5.5	16.4	9.9	9.3	10.4	27.9	16.6	16.9
Green Ext Time (p_c), s	0.0	7.1	0.2	3.3	0.0	4.3	0.0	6.0

Intersection Summary	
HCM 6th Ctrl Delay	41.8
HCM 6th LOS	D

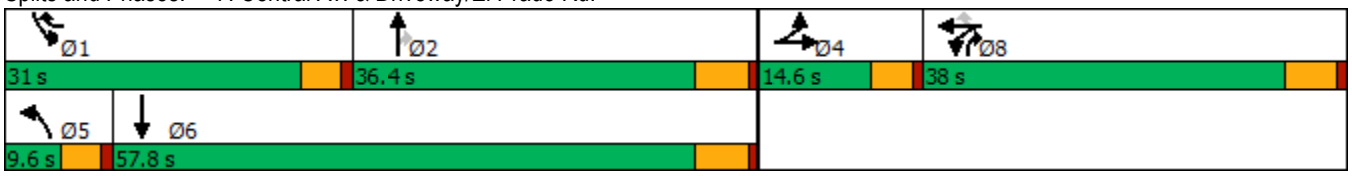
Notes

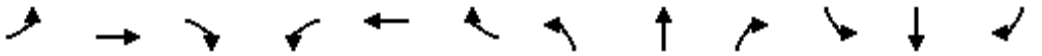
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	18	13	705	3	523	6	801	916	677	904
Future Volume (vph)	18	13	705	3	523	6	801	916	677	904
Turn Type	Split	NA	Split	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	4	4	8	8	1	5	2	8	1	6
Permitted Phases					8			2		
Detector Phase	4	4	8	8	1	5	2	8	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	34.8	34.8	9.6	9.6	27.8	34.8	9.6	24.8
Total Split (s)	14.6	14.6	38.0	38.0	31.0	9.6	36.4	38.0	31.0	57.8
Total Split (%)	12.2%	12.2%	31.7%	31.7%	25.8%	8.0%	30.3%	31.7%	25.8%	48.2%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	5.8	4.6	4.6	5.8	5.8	4.6	5.8
Lead/Lag					Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	None	Max
Act Effct Green (s)	10.0	10.0	32.3	32.3	60.1	5.0	30.7	63.1	26.5	60.0
Actuated g/C Ratio	0.09	0.09	0.28	0.28	0.53	0.04	0.27	0.55	0.23	0.53
v/c Ratio	0.13	0.14	0.85	0.80	0.61	0.08	0.91	0.99	0.97	0.37
Control Delay	53.1	39.6	58.7	53.8	13.4	58.0	55.7	41.0	71.3	17.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.1	39.6	58.7	53.8	13.4	58.0	55.7	41.0	71.3	17.8
LOS	D	D	E	D	B	E	E	D	E	B
Approach Delay		45.9		38.0			47.9			40.4
Approach LOS		D		D			D			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 114.2	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 42.6	Intersection LOS: D
Intersection Capacity Utilization 102.6%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 7: Central Av. & Driveway/El Prado Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	13	8	705	3	523	6	801	916	677	904	19
Future Volume (veh/h)	18	13	8	705	3	523	6	801	916	677	904	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	19	14	3	736	0	290	6	834	614	705	942	18
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	97	86	18	807	0	737	12	929	793	736	2474	47
Arrive On Green	0.06	0.06	0.06	0.25	0.00	0.25	0.01	0.27	0.27	0.23	0.50	0.50
Sat Flow, veh/h	1619	1437	308	3238	0	1524	1619	3420	1520	3141	4964	95
Grp Volume(v), veh/h	19	0	17	736	0	290	6	834	614	705	621	339
Grp Sat Flow(s),veh/h/ln	1619	0	1745	1619	0	1524	1619	1710	1520	1570	1638	1783
Q Serve(g_s), s	1.3	0.0	1.0	24.9	0.0	13.7	0.4	26.5	30.6	25.0	13.2	13.2
Cycle Q Clear(g_c), s	1.3	0.0	1.0	24.9	0.0	13.7	0.4	26.5	30.6	25.0	13.2	13.2
Prop In Lane	1.00		0.18	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	97	0	105	807	0	737	12	929	793	736	1633	889
V/C Ratio(X)	0.20	0.00	0.16	0.91	0.00	0.39	0.49	0.90	0.77	0.96	0.38	0.38
Avail Cap(c_a), veh/h	144	0	155	926	0	793	72	929	793	736	1633	889
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.4	0.0	50.3	41.1	0.0	18.5	55.7	39.5	20.3	42.6	17.5	17.5
Incr Delay (d2), s/veh	0.4	0.0	0.3	11.2	0.0	0.1	10.7	13.2	7.3	23.1	0.7	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.5	10.6	0.0	4.4	0.2	12.3	18.6	11.6	4.8	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.7	0.0	50.5	52.3	0.0	18.7	66.4	52.7	27.5	65.6	18.2	18.7
LnGrp LOS	D	A	D	D	A	B	E	D	C	E	B	B
Approach Vol, veh/h		36			1026			1454			1665	
Approach Delay, s/veh		50.6			42.8			42.1			38.4	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	31.0	36.4		11.4	5.5	61.9		33.9				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		5.8				
Max Green Setting (Gmax), s	26.4	30.6		10.0	5.0	52.0		32.2				
Max Q Clear Time (g_c+I1), s	27.0	32.6		3.3	2.4	15.2		26.9				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	6.6		1.2				

Intersection Summary		
HCM 6th Ctrl Delay		40.9
HCM 6th LOS		D

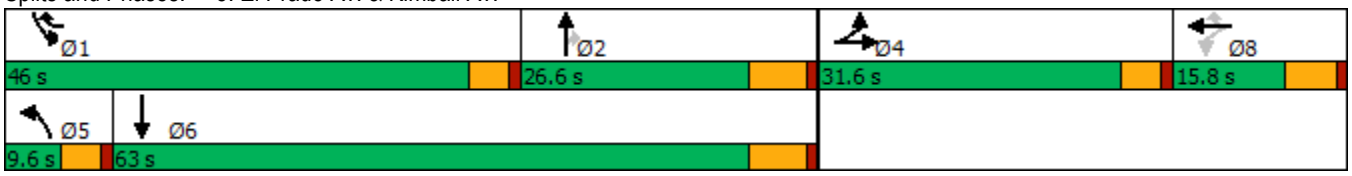
Notes

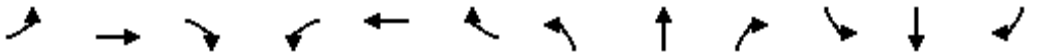
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	34	14	26	5	887	4	285	34	996	347
Future Volume (vph)	34	14	26	5	887	4	285	34	996	347
Turn Type	Split	NA	Perm	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	4	4		8	1	5	2		1	6
Permitted Phases			8		8			2		
Detector Phase	4	4	8	8	1	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	15.8	15.8	9.6	9.6	16.2	16.2	9.6	24.2
Total Split (s)	31.6	31.6	15.8	15.8	46.0	9.6	26.6	26.6	46.0	63.0
Total Split (%)	26.3%	26.3%	13.2%	13.2%	38.3%	8.0%	22.2%	22.2%	38.3%	52.5%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		5.8	4.6	4.6	6.2	6.2	4.6	6.2
Lead/Lag					Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Max	None	None	None	Max	Max
Act Effct Green (s)	13.1	13.1		10.4	49.0	5.2	21.1	21.1	43.2	70.8
Actuated g/C Ratio	0.14	0.14		0.11	0.52	0.06	0.22	0.22	0.46	0.75
v/c Ratio	0.16	0.08		0.22	0.89	0.04	0.75	0.08	0.74	0.28
Control Delay	41.3	33.7		50.0	21.7	52.8	51.2	0.3	29.1	10.8
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.3	33.7		50.0	21.7	52.8	51.2	0.3	29.1	10.8
LOS	D	C		D	C	D	D	A	C	B
Approach Delay		38.6		22.6			45.9			24.2
Approach LOS		D		C			D			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 94.1	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 26.6	Intersection LOS: C
Intersection Capacity Utilization 95.1%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 8: El Prado Av. & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	14	5	26	5	887	4	285	34	996	347	12
Future Volume (veh/h)	34	14	5	26	5	887	4	285	34	996	347	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	36	15	3	28	5	499	4	303	32	1060	369	12
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	127	114	23	148	26	792	9	338	287	1314	1041	34
Arrive On Green	0.08	0.08	0.08	0.10	0.10	0.10	0.01	0.19	0.19	0.42	0.60	0.60
Sat Flow, veh/h	1619	1456	291	1465	262	1518	1619	1800	1525	3141	1732	56
Grp Volume(v), veh/h	36	0	18	33	0	499	4	303	32	1060	0	381
Grp Sat Flow(s),veh/h/ln	1619	0	1748	1727	0	1518	1619	1800	1525	1570	0	1788
Q Serve(g_s), s	2.1	0.0	0.9	1.7	0.0	10.0	0.2	16.3	1.7	29.3	0.0	10.7
Cycle Q Clear(g_c), s	2.1	0.0	0.9	1.7	0.0	10.0	0.2	16.3	1.7	29.3	0.0	10.7
Prop In Lane	1.00		0.17	0.85		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	127	0	137	175	0	792	9	339	287	1314	0	1075
V/C Ratio(X)	0.28	0.00	0.13	0.19	0.00	0.63	0.47	0.90	0.11	0.81	0.00	0.35
Avail Cap(c_a), veh/h	442	0	477	175	0	792	82	371	315	1314	0	1075
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.0	0.0	42.5	40.8	0.0	17.0	49.1	39.2	33.3	25.3	0.0	10.0
Incr Delay (d2), s/veh	1.2	0.0	0.4	0.5	0.0	1.6	14.2	22.0	0.2	5.4	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.4	0.7	0.0	7.5	0.1	8.8	0.6	10.7	0.0	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.2	0.0	42.9	41.3	0.0	18.6	63.2	61.2	33.5	30.6	0.0	10.9
LnGrp LOS	D	A	D	D	A	B	E	E	C	C	A	B
Approach Vol, veh/h		54			532			339			1441	
Approach Delay, s/veh		43.8			20.0			58.7			25.4	
Approach LOS		D			C			E			C	

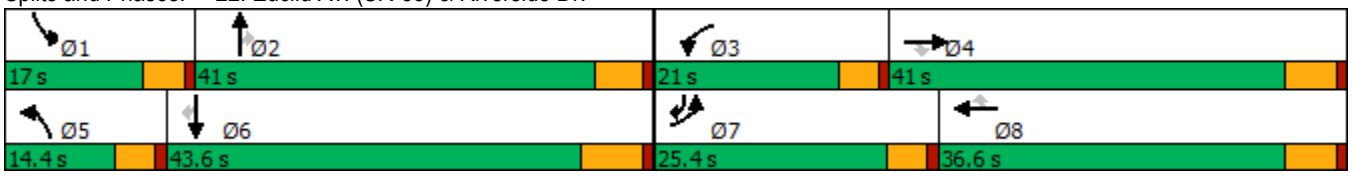
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	46.0	24.8		12.3	5.1	65.7		15.8				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		5.8				
Max Green Setting (Gmax), s	41.4	20.4		27.0	5.0	56.8		10.0				
Max Q Clear Time (g_c+I1), s	31.3	18.3		4.1	2.2	12.7		12.0				
Green Ext Time (p_c), s	1.8	0.3		0.1	0.0	2.1		0.0				

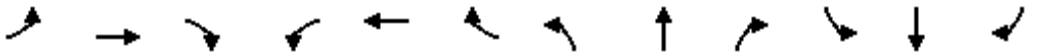
Intersection Summary			
HCM 6th Ctrl Delay		29.4	
HCM 6th LOS		C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	154	467	85	192	417	65	84	1232	248	142	1059	196
Future Volume (vph)	154	467	85	192	417	65	84	1232	248	142	1059	196
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	25.8	25.8	9.6	31.8	31.8	9.6	30.4	30.4	9.6	34.5	9.6
Total Split (s)	25.4	41.0	41.0	21.0	36.6	36.6	14.4	41.0	41.0	17.0	43.6	25.4
Total Split (%)	21.2%	34.2%	34.2%	17.5%	30.5%	30.5%	12.0%	34.2%	34.2%	14.2%	36.3%	21.2%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	None
Act Effct Green (s)	15.6	33.8	33.8	15.9	34.1	34.1	9.0	35.6	35.6	12.1	37.7	55.2
Actuated g/C Ratio	0.13	0.29	0.29	0.13	0.29	0.29	0.08	0.30	0.30	0.10	0.32	0.47
v/c Ratio	0.75	0.94	0.17	0.92	0.44	0.13	0.72	0.86	0.40	0.90	0.70	0.26
Control Delay	70.1	69.6	3.6	94.2	36.6	1.6	84.6	46.4	5.8	100.0	38.6	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.1	69.6	3.6	94.2	36.6	1.6	84.6	46.4	5.8	100.0	38.6	5.3
LOS	E	E	A	F	D	A	F	D	A	F	D	A
Approach Delay		61.7			49.7			42.1			40.2	
Approach LOS		E			D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 117.9	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 45.8	Intersection LOS: D
Intersection Capacity Utilization 88.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 22: Euclid Av. (SR-83) & Riverside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	154	467	85	192	417	65	84	1232	248	142	1059	196
Future Volume (veh/h)	154	467	85	192	417	65	84	1232	248	142	1059	196
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	160	486	64	200	434	52	88	1283	204	148	1103	113
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	185	513	435	221	1051	468	108	1456	452	167	1636	676
Arrive On Green	0.11	0.28	0.28	0.14	0.31	0.31	0.07	0.30	0.30	0.10	0.33	0.33
Sat Flow, veh/h	1619	1800	1525	1619	3420	1524	1619	4914	1525	1619	4914	1506
Grp Volume(v), veh/h	160	486	64	200	434	52	88	1283	204	148	1103	113
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1619	1710	1524	1619	1638	1525	1619	1638	1506
Q Serve(g_s), s	11.7	31.8	3.8	14.6	12.1	2.9	6.4	29.9	13.0	10.8	23.2	5.4
Cycle Q Clear(g_c), s	11.7	31.8	3.8	14.6	12.1	2.9	6.4	29.9	13.0	10.8	23.2	5.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	185	513	435	221	1051	468	108	1456	452	167	1636	676
V/C Ratio(X)	0.87	0.95	0.15	0.90	0.41	0.11	0.82	0.88	0.45	0.89	0.67	0.17
Avail Cap(c_a), veh/h	280	527	447	221	1051	468	132	1456	452	167	1636	676
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.3	42.1	32.1	51.1	33.0	29.8	55.3	40.2	34.3	53.2	34.5	19.9
Incr Delay (d2), s/veh	11.2	26.3	0.2	35.1	0.3	0.1	22.4	8.0	3.2	37.9	2.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	17.2	1.4	7.9	4.9	1.1	3.2	12.3	5.1	6.1	9.3	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.5	68.4	32.2	86.2	33.3	29.9	77.8	48.2	37.6	91.1	36.7	20.4
LnGrp LOS	E	E	C	F	C	C	E	D	D	F	D	C
Approach Vol, veh/h		710			686			1575			1364	
Approach Delay, s/veh		64.0			48.4			48.5			41.3	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	42.1	21.0	40.0	12.6	46.5	18.3	42.7
Change Period (Y+Rc), s	4.6	* 6.5	4.6	5.8	4.6	6.5	4.6	5.8
Max Green Setting (Gmax), s	12.4	* 36	16.4	35.2	9.8	37.1	20.8	30.8
Max Q Clear Time (g_c+I1), s	12.8	31.9	16.6	33.8	8.4	25.2	13.7	14.1
Green Ext Time (p_c), s	0.0	2.6	0.0	0.5	0.0	5.9	0.1	2.5

Intersection Summary	
HCM 6th Ctrl Delay	48.7
HCM 6th LOS	D

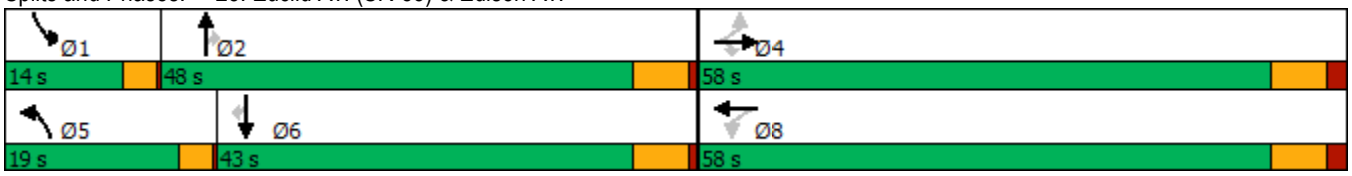
Notes

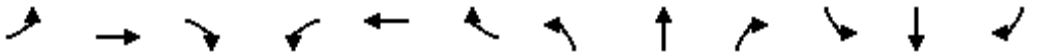
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	281	505	310	46	303	175	1324	78	92	1300	185
Future Volume (vph)	281	505	310	46	303	175	1324	78	92	1300	185
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	46.0	46.0	46.0	49.0	49.0	8.5	29.0	29.0	8.5	40.0	40.0
Total Split (s)	58.0	58.0	58.0	58.0	58.0	19.0	48.0	48.0	14.0	43.0	43.0
Total Split (%)	48.3%	48.3%	48.3%	48.3%	48.3%	15.8%	40.0%	40.0%	11.7%	35.8%	35.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	50.0	50.0	50.0	50.0	50.0	14.9	41.6	41.6	9.6	36.3	36.3
Actuated g/C Ratio	0.42	0.42	0.42	0.42	0.42	0.13	0.35	0.35	0.08	0.31	0.31
v/c Ratio	0.97	0.70	0.41	0.25	0.50	0.90	0.80	0.14	0.73	0.90	0.34
Control Delay	79.0	33.8	6.4	26.7	27.0	93.1	38.9	9.1	84.4	48.7	10.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.0	33.8	6.4	26.7	27.0	93.1	38.9	9.1	84.4	48.7	10.2
LOS	E	C	A	C	C	F	D	A	F	D	B
Approach Delay		37.6			27.0		43.5			46.3	
Approach LOS		D			C		D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 117.7	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 41.6	Intersection LOS: D
Intersection Capacity Utilization 94.8%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 25: Euclid Av. (SR-83) & Edison Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	281	505	310	46	303	50	175	1324	78	92	1300	185
Future Volume (veh/h)	281	505	310	46	303	50	175	1324	78	92	1300	185
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	296	532	244	48	319	47	184	1394	74	97	1368	163
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	332	772	654	187	656	97	208	1767	547	118	1495	464
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.13	0.36	0.36	0.07	0.30	0.30
Sat Flow, veh/h	975	1800	1525	667	1531	226	1619	4914	1521	1619	4914	1525
Grp Volume(v), veh/h	296	532	244	48	0	366	184	1394	74	97	1368	163
Grp Sat Flow(s),veh/h/ln	975	1800	1525	667	0	1756	1619	1638	1521	1619	1638	1525
Q Serve(g_s), s	33.1	28.5	12.9	7.5	0.0	17.9	13.3	30.2	3.9	7.0	31.9	9.9
Cycle Q Clear(g_c), s	51.0	28.5	12.9	36.0	0.0	17.9	13.3	30.2	3.9	7.0	31.9	9.9
Prop In Lane	1.00		1.00	1.00		0.13	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	332	772	654	187	0	753	208	1767	547	118	1495	464
V/C Ratio(X)	0.89	0.69	0.37	0.26	0.00	0.49	0.89	0.79	0.14	0.82	0.92	0.35
Avail Cap(c_a), veh/h	332	772	654	187	0	753	211	1767	547	143	1529	475
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.3	27.5	23.1	42.1	0.0	24.5	51.0	34.1	25.6	54.4	39.9	32.2
Incr Delay (d2), s/veh	24.7	2.6	0.4	0.7	0.0	0.5	31.7	2.5	0.1	22.4	8.8	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.9	12.1	4.5	1.2	0.0	7.2	7.0	11.5	1.3	3.5	13.2	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.0	30.2	23.5	42.9	0.0	25.0	82.7	36.5	25.7	76.8	48.7	32.7
LnGrp LOS	E	C	C	D	A	C	F	D	C	E	D	C
Approach Vol, veh/h		1072			414			1652			1628	
Approach Delay, s/veh		39.3			27.1			41.2			48.8	
Approach LOS		D			C			D			D	

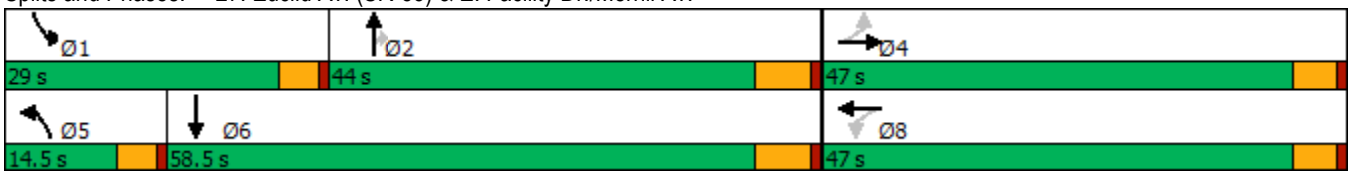
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.2	48.8		58.0	18.8	42.2		58.0				
Change Period (Y+Rc), s	3.5	6.0		7.0	3.5	6.0		7.0				
Max Green Setting (Gmax), s	10.5	42.0		51.0	15.5	37.0		51.0				
Max Q Clear Time (g_c+I1), s	9.0	32.2		53.0	15.3	33.9		38.0				
Green Ext Time (p_c), s	0.0	5.9		0.0	0.0	2.3		1.9				

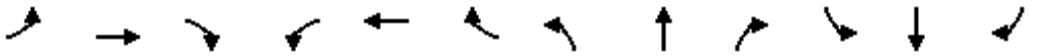
Intersection Summary			
HCM 6th Ctrl Delay		42.1	
HCM 6th LOS		D	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	12	31	256	2	4	1345	264	288	1349
Future Volume (vph)	12	31	256	2	4	1345	264	288	1349
Turn Type	Perm	NA	Perm	NA	Prot	NA	Perm	Prot	NA
Protected Phases		4		8	5	2		1	6
Permitted Phases	4		8				2		
Detector Phase	4	4	8	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	15.0	15.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	10.0	10.0	46.0	46.0	14.5	28.0	28.0	14.5	28.0
Total Split (s)	47.0	47.0	47.0	47.0	14.5	44.0	44.0	29.0	58.5
Total Split (%)	39.2%	39.2%	39.2%	39.2%	12.1%	36.7%	36.7%	24.2%	48.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.5	5.0	5.0	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	4.5	6.0	6.0	4.5	6.0
Lead/Lag					Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min
Act Effct Green (s)		42.0		42.0	10.0	38.0	38.0	24.3	63.9
Actuated g/C Ratio		0.35		0.35	0.08	0.32	0.32	0.20	0.53
v/c Ratio		0.11		1.01	0.03	0.95	0.52	0.97	0.57
Control Delay		21.6		80.0	51.2	53.7	24.8	89.5	20.5
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		21.6		80.0	51.2	53.7	24.8	89.5	20.5
LOS		C		E	D	D	C	F	C
Approach Delay		21.6		80.0		49.0			32.6
Approach LOS		C		E		D			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 119.8	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 45.3	Intersection LOS: D
Intersection Capacity Utilization 93.1%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 27: Euclid Av. (SR-83) & E. Facility Dr./Merrill Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	31	13	256	2	204	4	1345	264	288	1349	1
Future Volume (veh/h)	12	31	13	256	2	204	4	1345	264	288	1349	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1700	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	13	34	13	281	2	214	4	1478	225	316	1482	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	134	336	120	336	2	220	17	1553	482	331	2506	0
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.01	0.32	0.32	0.20	0.51	0.00
Sat Flow, veh/h	277	958	342	826	6	629	1619	4914	1525	1619	5076	0
Grp Volume(v), veh/h	60	0	0	497	0	0	4	1478	225	316	1482	0
Grp Sat Flow(s),veh/h/ln	1577	0	0	1461	0	0	1619	1638	1525	1619	1638	0
Q Serve(g_s), s	0.0	0.0	0.0	37.3	0.0	0.0	0.3	35.3	14.2	23.1	25.4	0.0
Cycle Q Clear(g_c), s	2.8	0.0	0.0	40.1	0.0	0.0	0.3	35.3	14.2	23.1	25.4	0.0
Prop In Lane	0.22		0.22	0.57		0.43	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	589	0	0	559	0	0	17	1553	482	331	2506	0
V/C Ratio(X)	0.10	0.00	0.00	0.89	0.00	0.00	0.24	0.95	0.47	0.95	0.59	0.00
Avail Cap(c_a), veh/h	589	0	0	559	0	0	135	1558	484	331	2506	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.2	0.0	0.0	38.0	0.0	0.0	58.8	40.1	32.9	47.1	20.6	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	15.7	0.0	0.0	2.7	13.1	0.7	37.3	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.0	15.8	0.0	0.0	0.1	15.1	5.0	12.2	8.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.2	0.0	0.0	53.7	0.0	0.0	61.5	53.3	33.6	84.4	21.0	0.0
LnGrp LOS	C	A	A	D	A	A	E	D	C	F	C	A
Approach Vol, veh/h		60			497			1707			1798	
Approach Delay, s/veh		26.2			53.7			50.7			32.1	
Approach LOS		C			D			D			C	

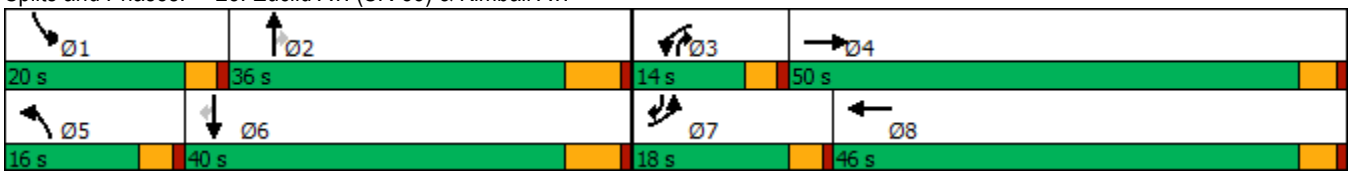
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	29.0	43.9		47.0	5.7	67.1		47.0				
Change Period (Y+Rc), s	4.5	6.0		5.0	4.5	6.0		5.0				
Max Green Setting (Gmax), s	24.5	38.0		42.0	10.0	52.5		42.0				
Max Q Clear Time (g_c+I1), s	25.1	37.3		4.8	2.3	27.4		42.1				
Green Ext Time (p_c), s	0.0	0.6		0.2	0.0	10.6		0.0				

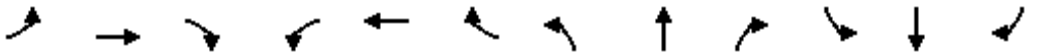
Intersection Summary			
HCM 6th Ctrl Delay		42.5	
HCM 6th LOS		D	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	370	807	82	352	75	987	49	449	936	248
Future Volume (vph)	370	807	82	352	75	987	49	449	936	248
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	3	8	5	2	3	1	6	7
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	7
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	14.0	49.5	14.0	45.5	14.0	36.0	14.0	9.0	33.0	14.0
Total Split (s)	18.0	50.0	14.0	46.0	16.0	36.0	14.0	20.0	40.0	18.0
Total Split (%)	15.0%	41.7%	11.7%	38.3%	13.3%	30.0%	11.7%	16.7%	33.3%	15.0%
Yellow Time (s)	3.0	3.5	3.0	3.5	3.0	5.0	3.0	3.0	5.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.5	4.0	4.5	4.0	6.0	4.0	4.0	6.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	None	Min	None
Act Effct Green (s)	14.3	36.5	10.2	28.8	10.8	27.2	43.5	16.3	36.3	52.6
Actuated g/C Ratio	0.14	0.35	0.10	0.27	0.10	0.26	0.41	0.15	0.34	0.50
v/c Ratio	0.96	0.77	0.55	0.59	0.47	0.80	0.08	1.02	0.57	0.29
Control Delay	83.4	36.3	63.7	29.2	58.6	43.1	6.9	92.8	32.6	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.4	36.3	63.7	29.2	58.6	43.1	6.9	92.8	32.6	3.2
LOS	F	D	E	C	E	D	A	F	C	A
Approach Delay		50.3		33.7		42.5			44.7	
Approach LOS		D		C		D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 105.4	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 44.2	Intersection LOS: D
Intersection Capacity Utilization 85.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 28: Euclid Av. (SR-83) & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	370	807	65	82	352	199	75	987	49	449	936	248
Future Volume (veh/h)	370	807	65	82	352	199	75	987	49	449	936	248
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1600	1800	1800	1700	1800	1800	1700	1800	1800	1600	1800	1800
Adj Flow Rate, veh/h	381	832	64	85	363	167	77	1018	36	463	965	158
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	412	1004	77	146	602	272	142	1250	526	471	1600	709
Arrive On Green	0.14	0.31	0.31	0.09	0.26	0.26	0.09	0.25	0.25	0.16	0.33	0.33
Sat Flow, veh/h	2956	3218	247	1619	2288	1036	1619	4914	1525	2956	4914	1524
Grp Volume(v), veh/h	381	442	454	85	270	260	77	1018	36	463	965	158
Grp Sat Flow(s),veh/h/ln	1478	1710	1755	1619	1710	1614	1619	1638	1525	1478	1638	1524
Q Serve(g_s), s	12.8	24.1	24.1	5.1	13.9	14.2	4.6	19.6	1.6	15.7	16.6	6.2
Cycle Q Clear(g_c), s	12.8	24.1	24.1	5.1	13.9	14.2	4.6	19.6	1.6	15.7	16.6	6.2
Prop In Lane	1.00		0.14	1.00		0.64	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	412	534	548	146	450	424	142	1250	526	471	1600	709
V/C Ratio(X)	0.93	0.83	0.83	0.58	0.60	0.61	0.54	0.81	0.07	0.98	0.60	0.22
Avail Cap(c_a), veh/h	412	774	795	161	706	666	193	1467	593	471	1663	728
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.7	32.1	32.1	43.9	32.4	32.5	43.9	35.2	22.1	42.1	28.4	16.0
Incr Delay (d2), s/veh	26.2	5.0	4.9	2.2	0.5	0.5	1.2	3.2	0.1	37.0	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	10.1	10.3	2.0	5.5	5.3	1.8	7.6	0.5	7.8	6.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.9	37.1	37.0	46.1	32.9	33.1	45.1	38.4	22.2	79.1	29.0	16.2
LnGrp LOS	E	D	D	D	C	C	D	D	C	E	C	B
Approach Vol, veh/h		1277			615			1131			1586	
Approach Delay, s/veh		46.5			34.8			38.3			42.4	
Approach LOS		D			C			D			D	

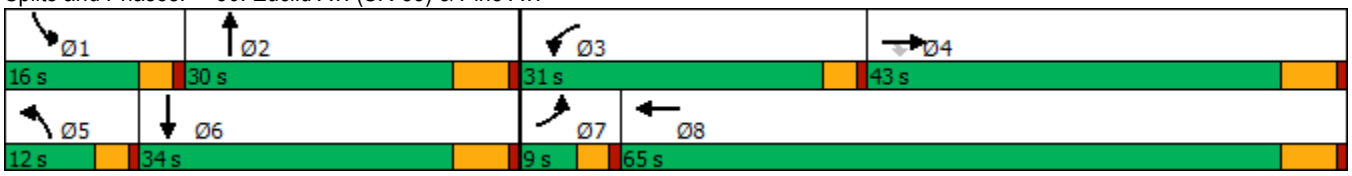
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	31.6	13.1	35.9	12.8	38.7	18.0	30.9
Change Period (Y+Rc), s	4.0	6.0	4.0	4.5	4.0	6.0	4.0	4.5
Max Green Setting (Gmax), s	16.0	30.0	10.0	45.5	12.0	34.0	14.0	41.5
Max Q Clear Time (g_c+I1), s	17.7	21.6	7.1	26.1	6.6	18.6	14.8	16.2
Green Ext Time (p_c), s	0.0	3.9	0.0	5.1	0.0	5.7	0.0	1.8

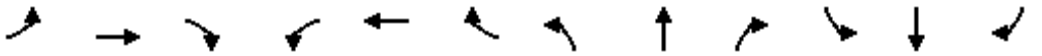
Intersection Summary	
HCM 6th Ctrl Delay	41.5
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	5	483	111	581	92	69	780	1172	131	859
Future Volume (vph)	5	483	111	581	92	69	780	1172	131	859
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Free	Prot	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases			4					Free		
Detector Phase	7	4	4	3	8	5	2		1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	9.0	43.0	43.0	9.0	45.0	9.0	11.0		9.0	29.0
Total Split (s)	9.0	43.0	43.0	31.0	65.0	12.0	30.0		16.0	34.0
Total Split (%)	7.5%	35.8%	35.8%	25.8%	54.2%	10.0%	25.0%		13.3%	28.3%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0		3.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	4.0	6.0		4.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Min		None	Min
Act Effct Green (s)	5.1	34.5	34.5	25.2	62.0	7.5	21.8	113.1	11.4	28.1
Actuated g/C Ratio	0.05	0.31	0.31	0.22	0.55	0.07	0.19	1.00	0.10	0.25
v/c Ratio	0.07	0.90	0.20	0.90	0.18	0.66	0.84	0.78	0.83	0.72
Control Delay	57.4	59.3	4.0	61.9	10.5	83.0	53.8	4.0	88.5	44.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.4	59.3	4.0	61.9	10.5	83.0	53.8	4.0	88.5	44.5
LOS	E	E	A	E	B	F	D	A	F	D
Approach Delay		49.1			50.4		26.0			50.3
Approach LOS		D			D		C			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 113.1	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 38.9	Intersection LOS: D
Intersection Capacity Utilization 87.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 30: Euclid Av. (SR-83) & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	483	111	581	92	75	69	780	1172	131	859	4
Future Volume (veh/h)	5	483	111	581	92	75	69	780	1172	131	859	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1800	1800	1600	1800	1800	1700	1800	1800	1700	1800	1800
Adj Flow Rate, veh/h	5	493	0	593	94	75	70	796	0	134	877	4
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	544		650	478	382	87	937		159	1188	5
Arrive On Green	0.01	0.30	0.00	0.22	0.52	0.52	0.05	0.19	0.00	0.10	0.24	0.24
Sat Flow, veh/h	1619	1800	1525	2956	927	740	1619	4914	1525	1619	5049	23
Grp Volume(v), veh/h	5	493	0	593	0	169	70	796	0	134	569	312
Grp Sat Flow(s),veh/h/ln	1619	1800	1525	1478	0	1667	1619	1638	1525	1619	1638	1796
Q Serve(g_s), s	0.3	27.9	0.0	20.7	0.0	5.8	4.5	16.6	0.0	8.6	17.0	17.0
Cycle Q Clear(g_c), s	0.3	27.9	0.0	20.7	0.0	5.8	4.5	16.6	0.0	8.6	17.0	17.0
Prop In Lane	1.00		1.00	1.00		0.44	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	10	544		650	0	860	87	937		159	771	422
V/C Ratio(X)	0.48	0.91		0.91	0.00	0.20	0.80	0.85		0.84	0.74	0.74
Avail Cap(c_a), veh/h	76	628		753	0	928	122	1113		183	866	474
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.5	35.5	0.0	40.3	0.0	13.8	49.6	41.4	0.0	47.0	37.5	37.5
Incr Delay (d2), s/veh	12.0	16.2	0.0	13.1	0.0	0.2	15.4	4.8	0.0	22.8	2.4	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	14.0	0.0	8.3	0.0	2.0	2.1	6.7	0.0	4.3	6.6	7.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.5	51.7	0.0	53.5	0.0	14.0	64.9	46.3	0.0	69.8	39.9	41.8
LnGrp LOS	E	D		D	A	B	E	D		E	D	D
Approach Vol, veh/h		498	A		762			866	A		1015	
Approach Delay, s/veh		51.8			44.7			47.8			44.4	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.4	26.2	27.3	38.0	9.7	30.9	4.7	60.7
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	12.0	24.0	27.0	37.0	8.0	28.0	5.0	59.0
Max Q Clear Time (g_c+I1), s	10.6	18.6	22.7	29.9	6.5	19.0	2.3	7.8
Green Ext Time (p_c), s	0.0	1.6	0.6	2.1	0.0	2.2	0.0	1.4

Intersection Summary	
HCM 6th Ctrl Delay	46.6
HCM 6th LOS	D

Notes

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	432	274	576	426	639	937
Future Volume (vph)	432	274	576	426	639	937
Turn Type	Prot	pm+ov	NA	pm+ov	Prot	NA
Protected Phases	8	1	2	8	1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	36.3	11.0	46.3	36.3	11.0	11.0
Total Split (s)	36.3	37.0	46.7	36.3	37.0	83.7
Total Split (%)	30.3%	30.8%	38.9%	30.3%	30.8%	69.8%
Yellow Time (s)	4.3	4.0	4.3	4.3	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.0	5.3	5.3	5.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	Max	None	None	Max	None
Act Effct Green (s)	28.7	66.5	24.5	53.2	32.4	62.2
Actuated g/C Ratio	0.28	0.66	0.24	0.52	0.32	0.61
v/c Ratio	0.86	0.26	0.68	0.51	1.13	0.82
Control Delay	53.4	5.7	38.7	13.0	113.6	22.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.4	5.7	38.7	13.0	113.6	22.6
LOS	D	A	D	B	F	C
Approach Delay	34.9		27.8			59.5
Approach LOS	C		C			E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 101.4	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.13	
Intersection Signal Delay: 44.5	Intersection LOS: D
Intersection Capacity Utilization 88.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 42: Archibald Av. & Limonite Av.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	432	274	576	426	639	937
Future Volume (veh/h)	432	274	576	426	639	937
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	441	230	588	414	652	956
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	474	944	924	825	586	1198
Arrive On Green	0.26	0.26	0.26	0.26	0.32	0.63
Sat Flow, veh/h	1810	1610	3705	1576	1810	1900
Grp Volume(v), veh/h	441	230	588	414	652	956
Grp Sat Flow(s),veh/h/ln	1810	1610	1805	1576	1810	1900
Q Serve(g_s), s	23.5	6.8	14.3	17.0	32.0	37.0
Cycle Q Clear(g_c), s	23.5	6.8	14.3	17.0	32.0	37.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	474	944	924	825	586	1198
V/C Ratio(X)	0.93	0.24	0.64	0.50	1.11	0.80
Avail Cap(c_a), veh/h	568	1027	1513	1082	586	1514
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	9.9	32.7	15.6	33.4	13.6
Incr Delay (d2), s/veh	18.6	0.0	0.9	0.6	71.9	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.0	2.0	5.9	9.5	24.3	12.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	54.2	9.9	33.5	16.1	105.2	15.4
LnGrp LOS	D	A	C	B	F	B
Approach Vol, veh/h	671		1002			1608
Approach Delay, s/veh	39.0		26.3			51.9
Approach LOS	D		C			D

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	37.0	30.6			67.6	31.2
Change Period (Y+Rc), s	5.0	5.3			* 5.3	5.3
Max Green Setting (Gmax), s	32.0	41.4			* 79	31.0
Max Q Clear Time (g_c+I1), s	34.0	19.0			39.0	25.5
Green Ext Time (p_c), s	0.0	6.3			4.2	0.4

Intersection Summary	
HCM 6th Ctrl Delay	41.4
HCM 6th LOS	D

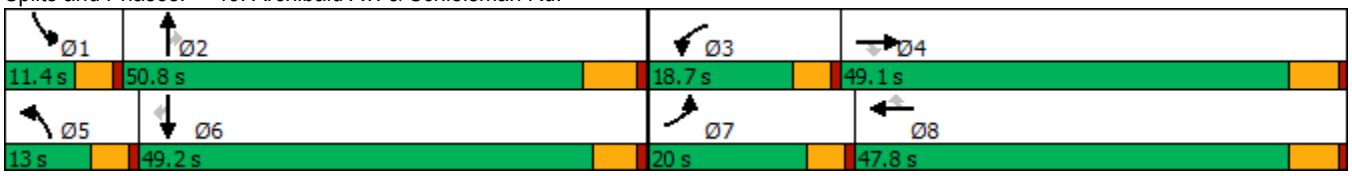
Notes

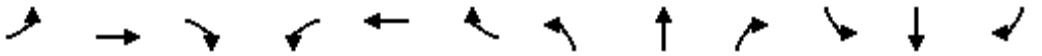
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	478	1067	207	114	343	61	211	637	115	174	700	405
Future Volume (vph)	478	1067	207	114	343	61	211	637	115	174	700	405
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	47.8	47.8	9.6	47.8	47.8	9.6	48.2	48.2	9.6	47.4	47.4
Total Split (s)	20.0	49.1	49.1	18.7	47.8	47.8	13.0	50.8	50.8	11.4	49.2	49.2
Total Split (%)	15.4%	37.8%	37.8%	14.4%	36.8%	36.8%	10.0%	39.1%	39.1%	8.8%	37.8%	37.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	5.2	5.2	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	6.2	6.2	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	None	None	Max	None	None	None	None	None	None	None	None
Act Effct Green (s)	15.8	30.0	30.0	14.5	28.7	28.7	8.6	25.0	25.0	7.0	24.2	24.2
Actuated g/C Ratio	0.16	0.31	0.31	0.15	0.29	0.29	0.09	0.25	0.25	0.07	0.25	0.25
v/c Ratio	0.87	0.69	0.33	0.22	0.23	0.12	0.70	0.49	0.23	0.72	0.56	0.59
Control Delay	59.0	32.8	5.3	42.7	27.2	1.5	59.4	32.5	6.7	64.4	34.1	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.0	32.8	5.3	42.7	27.2	1.5	59.4	32.5	6.7	64.4	34.1	6.8
LOS	E	C	A	D	C	A	E	C	A	E	C	A
Approach Delay		36.7			27.6			35.3			29.6	
Approach LOS		D			C			D			C	

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 98.2	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 33.3	Intersection LOS: C
Intersection Capacity Utilization 87.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 43: Archibald Av. & Schleisman Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	478	1067	207	114	343	61	211	637	115	174	700	405
Future Volume (veh/h)	478	1067	207	114	343	61	211	637	115	174	700	405
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	488	1089	129	116	350	36	215	650	80	178	714	299
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	562	1531	475	514	1461	453	283	1392	432	245	1335	413
Arrive On Green	0.16	0.30	0.30	0.15	0.28	0.28	0.08	0.27	0.27	0.07	0.26	0.26
Sat Flow, veh/h	3510	5187	1610	3510	5187	1607	3510	5187	1610	3510	5187	1605
Grp Volume(v), veh/h	488	1089	129	116	350	36	215	650	80	178	714	299
Grp Sat Flow(s),veh/h/ln	1755	1729	1610	1755	1729	1607	1755	1729	1610	1755	1729	1605
Q Serve(g_s), s	13.1	18.0	5.9	2.8	5.0	1.6	5.8	10.1	3.7	4.8	11.4	16.4
Cycle Q Clear(g_c), s	13.1	18.0	5.9	2.8	5.0	1.6	5.8	10.1	3.7	4.8	11.4	16.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	562	1531	475	514	1461	453	283	1392	432	245	1335	413
V/C Ratio(X)	0.87	0.71	0.27	0.23	0.24	0.08	0.76	0.47	0.19	0.73	0.53	0.72
Avail Cap(c_a), veh/h	562	2333	724	514	2263	701	306	2403	746	248	2360	730
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.5	30.3	26.0	36.3	26.6	25.4	43.3	29.5	27.1	43.9	30.8	32.6
Incr Delay (d2), s/veh	16.6	0.6	0.3	1.0	0.1	0.1	8.4	0.2	0.2	8.7	0.3	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	7.1	2.2	1.2	2.0	0.6	2.7	3.9	1.4	2.3	4.5	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.0	30.9	26.3	37.3	26.7	25.5	51.7	29.7	27.3	52.6	31.1	35.0
LnGrp LOS	E	C	C	D	C	C	D	C	C	D	C	D
Approach Vol, veh/h		1706			502			945			1191	
Approach Delay, s/veh		37.7			29.1			34.5			35.3	
Approach LOS		D			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	32.0	18.7	34.2	12.4	31.0	20.0	32.9
Change Period (Y+Rc), s	4.6	6.2	4.6	5.8	4.6	* 6.2	4.6	5.8
Max Green Setting (Gmax), s	6.8	44.6	14.1	43.3	8.4	* 44	15.4	42.0
Max Q Clear Time (g_c+I1), s	6.8	12.1	4.8	20.0	7.8	18.4	15.1	7.0
Green Ext Time (p_c), s	0.0	4.5	0.1	8.0	0.0	5.7	0.0	2.4

Intersection Summary	
HCM 6th Ctrl Delay	35.4
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 8.1:

HORIZON YEAR (2040) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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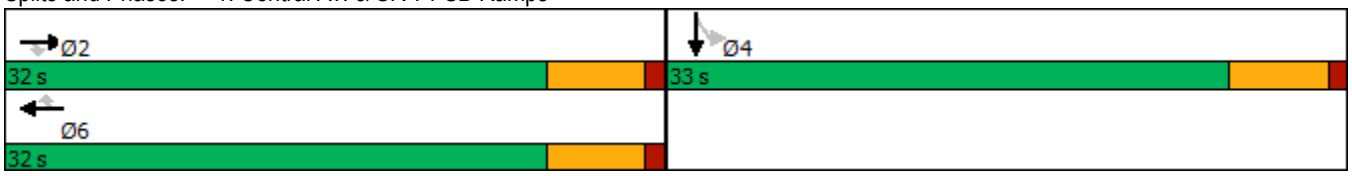
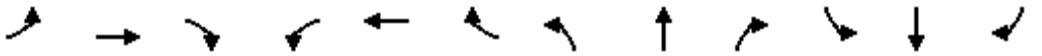
Lane Group	EBT	EBR	WBT	WBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1573	106	773	251	553	0
Future Volume (vph)	1573	106	773	251	553	0
Turn Type	NA	Perm	NA	Perm	Perm	NA
Protected Phases	2		6			4
Permitted Phases		2		6	4	
Detector Phase	2	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	22.8	22.8	15.8	15.8
Total Split (s)	32.0	32.0	32.0	32.0	33.0	33.0
Total Split (%)	49.2%	49.2%	49.2%	49.2%	50.8%	50.8%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max	Max	None	None

Intersection Summary
Cycle Length: 65
Actuated Cycle Length: 61.8
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Central Av. & SR-71 SB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱↱				↰	✣	
Traffic Volume (veh/h)	0	1573	106	0	773	251	0	0	0	553	0	352
Future Volume (veh/h)	0	1573	106	0	773	251	0	0	0	553	0	352
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	0	1788	0	0	878	0				430	277	233
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2323		0	2323					640	337	284
Arrive On Green	0.00	0.45	0.00	0.00	0.45	0.00				0.35	0.35	0.35
Sat Flow, veh/h	0	5358	1610	0	5358	2834				1810	954	802
Grp Volume(v), veh/h	0	1788	0	0	878	0				430	0	510
Grp Sat Flow(s),veh/h/ln	0	1729	1610	0	1729	1417				1810	0	1756
Q Serve(g_s), s	0.0	17.0	0.0	0.0	6.6	0.0				11.8	0.0	15.5
Cycle Q Clear(g_c), s	0.0	17.0	0.0	0.0	6.6	0.0				11.8	0.0	15.5
Prop In Lane	0.00		1.00	0.00		1.00				1.00		0.46
Lane Grp Cap(c), veh/h	0	2323		0	2323					640	0	621
V/C Ratio(X)	0.00	0.77		0.00	0.38					0.67	0.00	0.82
Avail Cap(c_a), veh/h	0	2323		0	2323					841	0	816
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	13.6	0.0	0.0	10.7	0.0				16.0	0.0	17.2
Incr Delay (d2), s/veh	0.0	2.5	0.0	0.0	0.5	0.0				1.3	0.0	5.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.5	0.0	0.0	2.0	0.0				4.1	0.0	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	16.1	0.0	0.0	11.2	0.0				17.3	0.0	22.4
LnGrp LOS	A	B		A	B					B	A	C
Approach Vol, veh/h		1788	A		878	A					940	
Approach Delay, s/veh		16.1			11.2						20.1	
Approach LOS		B			B						C	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		32.0		26.5		32.0						
Change Period (Y+Rc), s		5.8		5.8		5.8						
Max Green Setting (Gmax), s		26.2		27.2		26.2						
Max Q Clear Time (g_c+I1), s		19.0		17.5		8.6						
Green Ext Time (p_c), s		6.2		3.2		7.0						

Intersection Summary	
HCM 6th Ctrl Delay	16.0
HCM 6th LOS	B

Notes

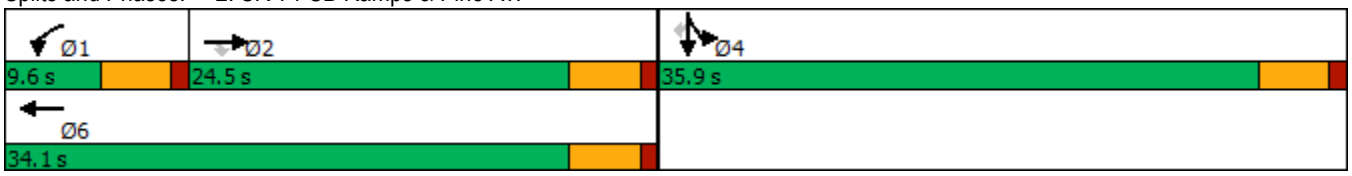
User approved volume balancing among the lanes for turning movement.

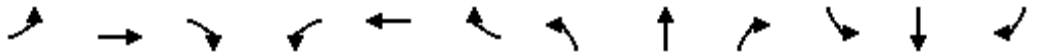
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	705	36	50	264	1	199
Future Volume (vph)	705	36	50	264	1	199
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	21.7	21.7	9.6	21.7	35.7	35.7
Total Split (s)	24.5	24.5	9.6	34.1	35.9	35.9
Total Split (%)	35.0%	35.0%	13.7%	48.7%	51.3%	51.3%
Yellow Time (s)	3.7	3.7	3.6	3.7	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7	4.6	4.7	4.7	4.7
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Max	Max

Intersection Summary
Cycle Length: 70
Actuated Cycle Length: 66.2
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: SR-71 SB Ramps & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	705	36	50	264	0	0	0	0	430	1	199
Future Volume (veh/h)	0	705	36	50	264	0	0	0	0	430	1	199
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	820	36	58	307	0				500	1	141
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86				0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	551	467	88	1465	0				825	2	735
Arrive On Green	0.00	0.29	0.29	0.05	0.41	0.00				0.46	0.46	0.46
Sat Flow, veh/h	0	1900	1610	1810	3705	0				1806	4	1610
Grp Volume(v), veh/h	0	820	36	58	307	0				501	0	141
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	19.8	1.1	2.2	3.8	0.0				14.2	0.0	3.6
Cycle Q Clear(g_c), s	0.0	19.8	1.1	2.2	3.8	0.0				14.2	0.0	3.6
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	551	467	88	1465	0				826	0	735
V/C Ratio(X)	0.00	1.49	0.08	0.66	0.21	0.00				0.61	0.00	0.19
Avail Cap(c_a), veh/h	0	551	467	132	1553	0				826	0	735
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	24.3	17.6	31.9	13.2	0.0				14.0	0.0	11.1
Incr Delay (d2), s/veh	0.0	229.8	0.1	3.1	0.1	0.0				3.3	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	43.0	0.4	1.0	1.4	0.0				5.9	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	254.1	17.7	35.0	13.3	0.0				17.2	0.0	11.6
LnGrp LOS	A	F	B	C	B	A				B	A	B
Approach Vol, veh/h		856			365						642	
Approach Delay, s/veh		244.2			16.7						16.0	
Approach LOS		F			B						B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	7.9	24.5		35.9		32.4
Change Period (Y+Rc), s	4.6	* 4.7		* 4.7		* 4.7
Max Green Setting (Gmax), s	5.0	* 20		* 31		* 29
Max Q Clear Time (g_c+I1), s	4.2	21.8		16.2		5.8
Green Ext Time (p_c), s	0.0	0.0		3.4		2.5

Intersection Summary		
HCM 6th Ctrl Delay		121.0
HCM 6th LOS		F

Notes

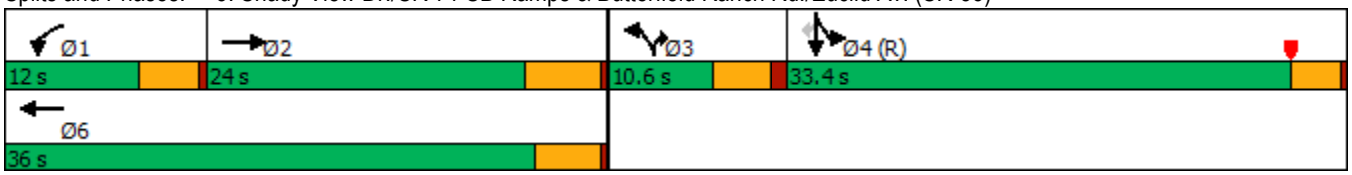
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

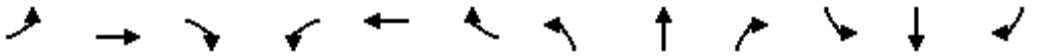
Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	819	234	404	21	330	669	30	14
Future Volume (vph)	819	234	404	21	330	669	30	14
Turn Type	NA	Prot	NA	Prot	Prot	Split	NA	Perm
Protected Phases	2	1	6	3	3	4	4	
Permitted Phases								4
Detector Phase	2	1	6	3	3	4	4	4
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	9.0	26.5	9.5	9.5	32.5	32.5	32.5
Total Split (s)	24.0	12.0	36.0	10.6	10.6	33.4	33.4	33.4
Total Split (%)	30.0%	15.0%	45.0%	13.3%	13.3%	41.8%	41.8%	41.8%
Yellow Time (s)	4.5	3.5	4.0	3.5	3.5	3.0	3.0	3.0
All-Red Time (s)	0.5	0.5	0.5	1.0	1.0	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	4.5	4.5	4.5	3.5	3.5	3.5
Lead/Lag	Lag	Lead		Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	None	None	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 4:SBTL, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 3: Shady View Dr./SR-71 SB Ramps & Butterfield Ranch Rd./Euclid Av. (SR-83)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	819	36	234	404	0	21	0	330	669	30	14
Future Volume (veh/h)	0	819	36	234	404	0	21	0	330	669	30	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	1900	0	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	836	28	239	412	0	21	0	268	705	0	-2
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	846	28	181	1399		0	0	0	1832	0	815
Arrive On Green	0.00	0.24	0.24	0.03	0.13	0.00	0.00	0.00	0.00	0.51	0.00	0.00
Sat Flow, veh/h	0	3659	119	1810	3705	0		0		3619	0	1610
Grp Volume(v), veh/h	0	423	441	239	412	0		0.0		705	0	-2
Grp Sat Flow(s),veh/h/ln	0	1805	1879	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	18.7	18.7	8.0	8.3	0.0				9.6	0.0	0.0
Cycle Q Clear(g_c), s	0.0	18.7	18.7	8.0	8.3	0.0				9.6	0.0	0.0
Prop In Lane	0.00		0.06	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	429	446	181	1399					1832	0	815
V/C Ratio(X)	0.00	0.99	0.99	1.32	0.29					0.38	0.00	0.00
Avail Cap(c_a), veh/h	0	429	446	181	1421					1832	0	815
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.71	0.71	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	30.4	30.4	38.7	25.0	0.0				12.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	40.0	39.2	169.2	0.1	0.0				0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	12.2	12.6	12.1	3.5	0.0				3.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	70.4	69.6	207.8	25.0	0.0				12.7	0.0	0.0
LnGrp LOS	A	E	E	F	C					B	A	A
Approach Vol, veh/h		864			651	A					703	
Approach Delay, s/veh		70.0			92.2						12.8	
Approach LOS		E			F						B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	12.0	24.0		44.0		36.0
Change Period (Y+Rc), s	4.0	5.0		3.5		* 5
Max Green Setting (Gmax), s	8.0	19.0		29.9		* 32
Max Q Clear Time (g_c+I1), s	10.0	20.7		11.6		10.3
Green Ext Time (p_c), s	0.0	0.0		2.4		1.9

Intersection Summary		
HCM 6th Ctrl Delay		58.3
HCM 6th LOS		E

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

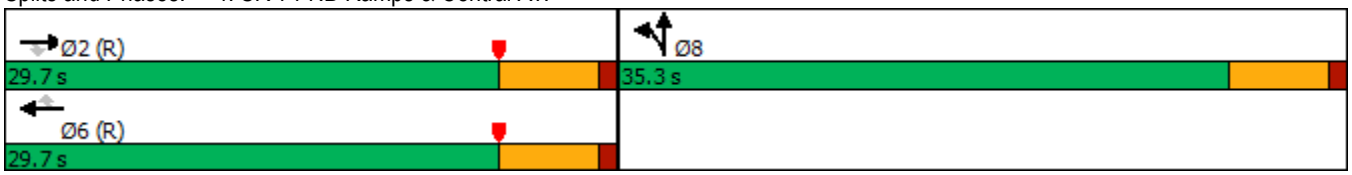
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

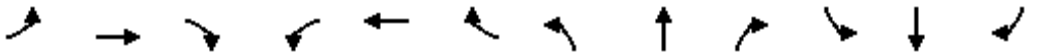
Lane Group	EBT	EBR	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	1257	870	910	1110	114	0
Future Volume (vph)	1257	870	910	1110	114	0
Turn Type	NA	Perm	NA	Perm	Split	NA
Protected Phases	2		6		8	8
Permitted Phases		2		6		
Detector Phase	2	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	15.8	15.8	22.8	22.8
Total Split (s)	29.7	29.7	29.7	29.7	35.3	35.3
Total Split (%)	45.7%	45.7%	45.7%	45.7%	54.3%	54.3%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 63.9 (98%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 4: SR-71 NB Ramps & Central Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰	✣				
Traffic Volume (veh/h)	0	1257	870	0	910	1110	114	0	437	0	0	0
Future Volume (veh/h)	0	1257	870	0	910	1110	114	0	437	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	0	1428	0	0	1034	0	130	0	290			
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	0	3076		0	3076		414	0	368			
Arrive On Green	0.00	0.59	0.00	0.00	0.59	0.00	0.23	0.00	0.23			
Sat Flow, veh/h	0	5358	1610	0	5358	1610	1810	0	1610			
Grp Volume(v), veh/h	0	1428	0	0	1034	0	130	0	290			
Grp Sat Flow(s),veh/h/ln	0	1729	1610	0	1729	1610	1810	0	1610			
Q Serve(g_s), s	0.0	10.1	0.0	0.0	6.6	0.0	3.9	0.0	11.0			
Cycle Q Clear(g_c), s	0.0	10.1	0.0	0.0	6.6	0.0	3.9	0.0	11.0			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3076		0	3076		414	0	368			
V/C Ratio(X)	0.00	0.46		0.00	0.34		0.31	0.00	0.79			
Avail Cap(c_a), veh/h	0	3076		0	3076		821	0	731			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.48	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	7.4	0.0	0.0	6.7	0.0	20.8	0.0	23.6			
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.3	0.0	0.4	0.0	3.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	2.6	0.0	0.0	1.7	0.0	1.5	0.0	4.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	7.7	0.0	0.0	7.0	0.0	21.3	0.0	27.4			
LnGrp LOS	A	A		A	A		C	A	C			
Approach Vol, veh/h		1428	A		1034	A		420				
Approach Delay, s/veh		7.7			7.0			25.5				
Approach LOS		A			A			C				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		44.3				44.3		20.7				
Change Period (Y+Rc), s		5.8				5.8		5.8				
Max Green Setting (Gmax), s		23.9				23.9		29.5				
Max Q Clear Time (g_c+I1), s		12.1				8.6		13.0				
Green Ext Time (p_c), s		7.0				5.9		1.9				

Intersection Summary	
HCM 6th Ctrl Delay	10.0
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	316.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	495	639	0	0	247	920	67	6	71	0	0	0
Future Vol, veh/h	495	639	0	0	247	920	67	6	71	0	0	0
Peak Hour Factor	0.86	0.92	0.86	0.92	0.92	0.92	0.86	0.86	0.92	0.92	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	576	695	0	0	268	1000	78	7	77	0	0	0
Number of Lanes	2	1	0	0	1	0	1	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	22.2	649.7	16.4
HCM LOS	C	F	C

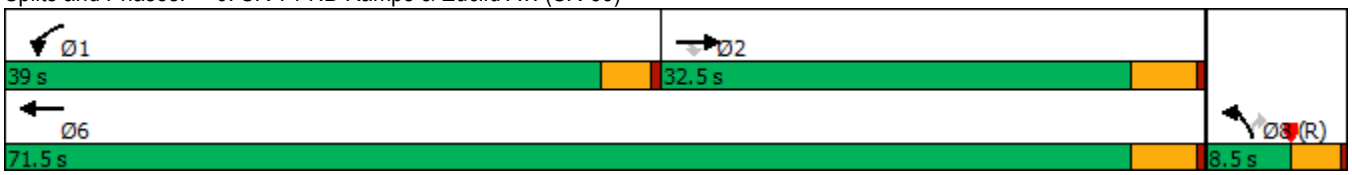
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1
Vol Left, %	100%	8%	100%	100%	0%	0%
Vol Thru, %	0%	7%	0%	0%	100%	21%
Vol Right, %	0%	85%	0%	0%	0%	79%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	60	84	248	248	639	1167
LT Vol	60	7	248	248	0	0
Through Vol	0	6	0	0	639	247
RT Vol	0	71	0	0	0	920
Lane Flow Rate	70	92	288	288	695	1268
Geometry Grp	8	8	7	7	7	8
Degree of Util (X)	0.177	0.205	0.507	0.507	0.8	2.397
Departure Headway (Hd)	11.681	10.552	7.59	7.59	5.315	6.803
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	309	343	478	478	688	545
Service Time	9.381	8.252	5.29	5.29	3.015	4.517
HCM Lane V/C Ratio	0.227	0.268	0.603	0.603	1.01	2.327
HCM Control Delay	16.9	16	17.8	17.8	25.8	649.7
HCM Lane LOS	C	C	C	C	D	F
HCM 95th-tile Q	0.6	0.8	2.8	2.8	8.1	97.1

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	526	49	401	1659	156	560
Future Volume (vph)	526	49	401	1659	156	560
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	32.5	32.5	8.5	9.5	8.5	8.5
Total Split (s)	32.5	32.5	39.0	71.5	8.5	8.5
Total Split (%)	40.6%	40.6%	48.8%	89.4%	10.6%	10.6%
Yellow Time (s)	4.0	4.0	3.0	4.0	3.0	3.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	3.5	4.5	3.5	3.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 9.5 (12%), Referenced to phase 4: and 8:NBL, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 6: SR-71 NB Ramps & Euclid Av. (SR-83)





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	526	49	401	1659	156	560
Future Volume (veh/h)	526	49	401	1659	156	560
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	560	0	427	1765	166	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1090		475	2196	1024	
Arrive On Green	0.10	0.00	0.26	0.61	0.29	0.00
Sat Flow, veh/h	3705	1610	1810	3705	3510	1610
Grp Volume(v), veh/h	560	0	427	1765	166	0
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805	1755	1610
Q Serve(g_s), s	11.8	0.0	18.2	30.0	2.8	0.0
Cycle Q Clear(g_c), s	11.8	0.0	18.2	30.0	2.8	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1090		475	2196	1024	
V/C Ratio(X)	0.51		0.90	0.80	0.16	
Avail Cap(c_a), veh/h	1264		803	3023	1024	
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.17	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.4	0.0	28.5	12.0	21.1	0.0
Incr Delay (d2), s/veh	0.0	0.0	6.3	1.2	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	0.0	7.7	8.5	1.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	30.5	0.0	34.8	13.2	21.4	0.0
LnGrp LOS	C		C	B	C	
Approach Vol, veh/h	560	A		2192	166	A
Approach Delay, s/veh	30.5			17.4	21.4	
Approach LOS	C			B	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	24.5	28.7				53.2	26.8
Change Period (Y+Rc), s	3.5	4.5				4.5	3.5
Max Green Setting (Gmax), s	35.5	28.0				67.0	5.0
Max Q Clear Time (g_c+I1), s	20.2	13.8				32.0	4.8
Green Ext Time (p_c), s	0.8	2.4				16.7	0.0

Intersection Summary	
HCM 6th Ctrl Delay	20.1
HCM 6th LOS	C

Notes

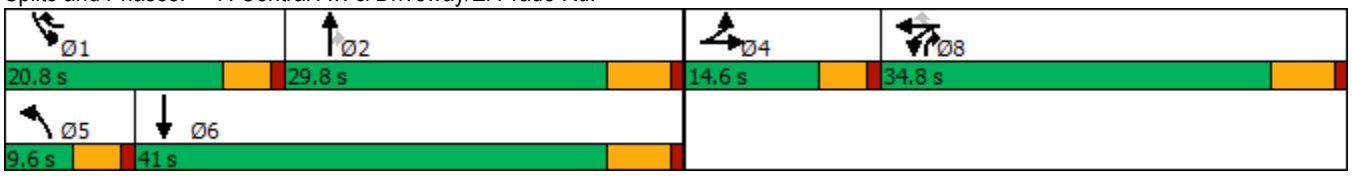
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

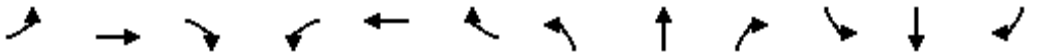
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	3	7	668	4	587	2	930	498	315	781
Future Volume (vph)	3	7	668	4	587	2	930	498	315	781
Turn Type	Split	NA	Split	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	4	4	8	8	1	5	2	8	1	6
Permitted Phases					8			2		
Detector Phase	4	4	8	8	1	5	2	8	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	34.8	34.8	9.6	9.6	27.8	34.8	9.6	24.8
Total Split (s)	14.6	14.6	34.8	34.8	20.8	9.6	29.8	34.8	20.8	41.0
Total Split (%)	14.6%	14.6%	34.8%	34.8%	20.8%	9.6%	29.8%	34.8%	20.8%	41.0%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	5.8	4.6	4.6	5.8	5.8	4.6	5.8
Lead/Lag					Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	None	Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 81.4
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Central Av. & Driveway/El Prado Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	7	1	668	4	587	2	930	498	315	781	14
Future Volume (veh/h)	3	7	1	668	4	587	2	930	498	315	781	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	3	7	0	685	0	382	2	949	334	321	797	11
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	43	47	0	808	0	696	5	1050	837	337	2554	35
Arrive On Green	0.02	0.02	0.00	0.24	0.00	0.24	0.00	0.29	0.29	0.20	0.48	0.48
Sat Flow, veh/h	1714	1900	0	3429	0	1610	1714	3610	1573	1714	5270	73
Grp Volume(v), veh/h	3	7	0	685	0	382	2	949	334	321	523	285
Grp Sat Flow(s),veh/h/ln	1714	1900	0	1714	0	1610	1714	1805	1573	1714	1729	1885
Q Serve(g_s), s	0.1	0.3	0.0	15.7	0.0	14.6	0.1	20.9	10.5	15.3	7.6	7.6
Cycle Q Clear(g_c), s	0.1	0.3	0.0	15.7	0.0	14.6	0.1	20.9	10.5	15.3	7.6	7.6
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	43	47	0	808	0	696	5	1050	837	337	1676	913
V/C Ratio(X)	0.07	0.15	0.00	0.85	0.00	0.55	0.43	0.90	0.40	0.95	0.31	0.31
Avail Cap(c_a), veh/h	208	230	0	1205	0	882	104	1050	837	337	1676	913
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.3	39.4	0.0	30.1	0.0	17.4	41.1	28.1	11.7	32.8	12.9	12.9
Incr Delay (d2), s/veh	0.3	0.5	0.0	2.5	0.0	0.3	21.6	12.5	1.4	36.5	0.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.1	0.0	6.2	0.0	4.7	0.1	10.0	5.7	9.3	2.7	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.6	39.9	0.0	32.6	0.0	17.7	62.6	40.6	13.2	69.3	13.4	13.8
LnGrp LOS	D	D	A	C	A	B	E	D	B	E	B	B
Approach Vol, veh/h		10			1067			1285			1129	
Approach Delay, s/veh		39.8			27.2			33.5			29.4	
Approach LOS		D			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.8	29.8		6.6	4.8	45.8		25.2				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		5.8				
Max Green Setting (Gmax), s	16.2	24.0		10.0	5.0	35.2		29.0				
Max Q Clear Time (g_c+I1), s	17.3	22.9		2.3	2.1	9.6		17.7				
Green Ext Time (p_c), s	0.0	0.8		0.0	0.0	5.0		1.7				

Intersection Summary		
HCM 6th Ctrl Delay		30.3
HCM 6th LOS		C

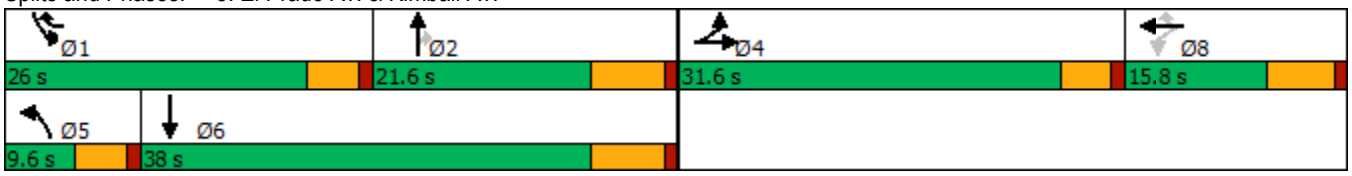
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	24	5	34	17	886	6	305	33	467	262
Future Volume (vph)	24	5	34	17	886	6	305	33	467	262
Turn Type	Split	NA	Perm	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	4	4		8	1	5	2		1	6
Permitted Phases			8		8			2		
Detector Phase	4	4	8	8	1	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	15.8	15.8	9.6	9.6	16.2	16.2	9.6	24.2
Total Split (s)	31.6	31.6	15.8	15.8	26.0	9.6	21.6	21.6	26.0	38.0
Total Split (%)	33.3%	33.3%	16.6%	16.6%	27.4%	10.1%	22.7%	22.7%	27.4%	40.0%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		5.8	4.6	4.6	6.2	6.2	4.6	6.2
Lead/Lag					Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary
Cycle Length: 95
Actuated Cycle Length: 69.2
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: El Prado Av. & Kimball Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	5	3	34	17	886	6	305	33	467	262	42
Future Volume (veh/h)	24	5	3	34	17	886	6	305	33	467	262	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	25	5	2	36	18	536	6	321	35	492	276	41
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	112	84	34	168	84	695	13	402	341	504	1568	230
Arrive On Green	0.07	0.07	0.07	0.14	0.14	0.14	0.01	0.21	0.21	0.29	0.50	0.50
Sat Flow, veh/h	1714	1291	516	1226	613	1610	1714	1900	1610	1714	3149	462
Grp Volume(v), veh/h	25	0	7	54	0	536	6	321	35	492	157	160
Grp Sat Flow(s),veh/h/ln	1714	0	1807	1839	0	1610	1714	1900	1610	1714	1805	1805
Q Serve(g_s), s	1.0	0.0	0.3	1.9	0.0	10.0	0.3	11.7	1.3	20.7	3.5	3.6
Cycle Q Clear(g_c), s	1.0	0.0	0.3	1.9	0.0	10.0	0.3	11.7	1.3	20.7	3.5	3.6
Prop In Lane	1.00		0.29	0.67		1.00	1.00		1.00	1.00		0.26
Lane Grp Cap(c), veh/h	112	0	118	253	0	695	13	402	341	504	899	899
V/C Ratio(X)	0.22	0.00	0.06	0.21	0.00	0.77	0.45	0.80	0.10	0.98	0.17	0.18
Avail Cap(c_a), veh/h	636	0	671	253	0	695	118	402	341	504	899	899
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.2	0.0	31.9	27.9	0.0	17.6	35.9	27.2	23.1	25.4	10.0	10.1
Incr Delay (d2), s/veh	1.0	0.0	0.2	0.4	0.0	5.3	8.4	15.2	0.6	33.6	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.1	0.8	0.0	7.4	0.1	6.4	0.5	11.9	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.2	0.0	32.1	28.3	0.0	23.0	44.3	42.4	23.7	59.1	10.5	10.5
LnGrp LOS	C	A	C	C	A	C	D	D	C	E	B	B
Approach Vol, veh/h		32			590			362			809	
Approach Delay, s/veh		33.0			23.4			40.6			40.0	
Approach LOS		C			C			D			D	

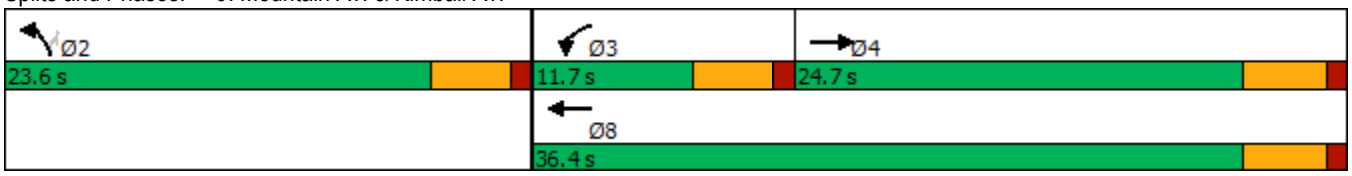
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	26.0	21.6		9.4	5.2	42.4		15.8				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		5.8				
Max Green Setting (Gmax), s	21.4	15.4		27.0	5.0	31.8		10.0				
Max Q Clear Time (g_c+I1), s	22.7	13.7		3.0	2.3	5.6		12.0				
Green Ext Time (p_c), s	0.0	0.3		0.1	0.0	1.6		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		34.6	
HCM 6th LOS		C	

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	407	132	1281	87	43
Future Volume (vph)	407	132	1281	87	43
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	4	3	8	2	
Permitted Phases					2
Detector Phase	4	3	8	2	2
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	24.7	9.6	14.7	23.6	23.6
Total Split (s)	24.7	11.7	36.4	23.6	23.6
Total Split (%)	41.2%	19.5%	60.7%	39.3%	39.3%
Yellow Time (s)	3.7	3.6	3.7	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.6	4.7	4.6	4.6
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	Max	None	Max	None	None

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 52.9
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 9: Mountain Av. & Kimball Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	407	93	132	1281	87	43
Future Volume (veh/h)	407	93	132	1281	87	43
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1800	1900	1800	1900
Adj Flow Rate, veh/h	428	87	139	1348	92	43
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1329	268	175	2315	292	275
Arrive On Green	0.45	0.45	0.10	0.64	0.17	0.17
Sat Flow, veh/h	3076	601	1714	3705	1714	1610
Grp Volume(v), veh/h	258	257	139	1348	92	43
Grp Sat Flow(s),veh/h/ln	1805	1777	1714	1805	1714	1610
Q Serve(g_s), s	4.6	4.6	3.9	10.6	2.3	1.1
Cycle Q Clear(g_c), s	4.6	4.6	3.9	10.6	2.3	1.1
Prop In Lane		0.34	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	805	792	175	2315	292	275
V/C Ratio(X)	0.32	0.32	0.79	0.58	0.31	0.16
Avail Cap(c_a), veh/h	805	792	246	2315	659	619
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.9	8.9	21.7	5.1	18.0	17.5
Incr Delay (d2), s/veh	1.0	1.1	7.3	1.1	0.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.4	1.7	1.8	0.8	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.9	10.0	28.9	6.2	18.6	17.7
LnGrp LOS	A	A	C	A	B	B
Approach Vol, veh/h	515			1487	135	
Approach Delay, s/veh	9.9			8.3	18.3	
Approach LOS	A			A	B	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		13.0	9.7	26.7		36.4
Change Period (Y+Rc), s		4.6	4.6	* 4.7		* 4.7
Max Green Setting (Gmax), s		19.0	7.1	* 20		* 32
Max Q Clear Time (g_c+I1), s		4.3	5.9	6.6		12.6
Green Ext Time (p_c), s		0.3	0.0	2.3		9.1

Intersection Summary	
HCM 6th Ctrl Delay	9.3
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	6.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	83	199	96	37	63	73
Future Vol, veh/h	83	199	96	37	63	73
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	101	243	117	45	77	89

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	383	140	0	0	162	0
Stage 1	140	-	-	-	-	-
Stage 2	243	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	624	913	-	-	1429	-
Stage 1	892	-	-	-	-	-
Stage 2	802	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	590	913	-	-	1429	-
Mov Cap-2 Maneuver	637	-	-	-	-	-
Stage 1	892	-	-	-	-	-
Stage 2	759	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.8	0	3.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	637	913	1429	-
HCM Lane V/C Ratio	-	-	0.159	0.266	0.054	-
HCM Control Delay (s)	-	-	11.7	10.4	7.7	-
HCM Lane LOS	-	-	B	B	A	-
HCM 95th %tile Q(veh)	-	-	0.6	1.1	0.2	-

Intersection	
Int Delay, s/veh	3.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	100	56	289	120	13	124
Future Vol, veh/h	100	56	289	120	13	124
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	109	61	314	130	14	135

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	542	379	0	0	444	0
Stage 1	379	-	-	-	-	-
Stage 2	163	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	505	672	-	-	1127	-
Stage 1	696	-	-	-	-	-
Stage 2	871	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	498	672	-	-	1127	-
Mov Cap-2 Maneuver	498	-	-	-	-	-
Stage 1	696	-	-	-	-	-
Stage 2	860	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.5	0	0.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	549	1127	-
HCM Lane V/C Ratio	-	-	0.309	0.013	-
HCM Control Delay (s)	-	-	14.5	8.2	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.3	0	-

Intersection	
Intersection Delay, s/veh	552.1
Intersection LOS	F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	92	590	1288	317	142	82
Future Vol, veh/h	92	590	1288	317	142	82
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	101	648	1415	348	156	90
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	133.2	804.3	20.3
HCM LOS	F	F	C

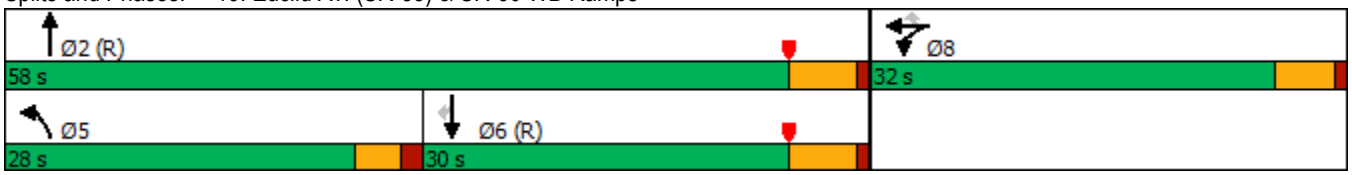
Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	13%	0%	63%
Vol Thru, %	87%	80%	0%
Vol Right, %	0%	20%	37%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	682	1605	224
LT Vol	92	0	142
Through Vol	590	1288	0
RT Vol	0	317	82
Lane Flow Rate	749	1764	246
Geometry Grp	1	1	1
Degree of Util (X)	1.197	2.747	0.472
Departure Headway (Hd)	7.699	5.947	9.256
Convergence, Y/N	Yes	Yes	Yes
Cap	480	635	394
Service Time	5.699	3.947	7.256
HCM Lane V/C Ratio	1.56	2.778	0.624
HCM Control Delay	133.2	804.3	20.3
HCM Lane LOS	F	F	C
HCM 95th-tile Q	21.3	136.8	2.4

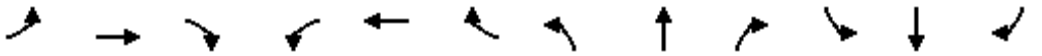
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	810	7	516	545	1183	1216	593
Future Volume (vph)	810	7	516	545	1183	1216	593
Turn Type	Split	NA	Perm	Prot	NA	NA	Perm
Protected Phases	8	8		5	2	6	
Permitted Phases			8				6
Detector Phase	8	8	8	5	2	6	6
Switch Phase							
Minimum Initial (s)	6.0	6.0	6.0	5.0	10.0	10.0	10.0
Minimum Split (s)	11.0	11.0	11.0	9.5	22.5	22.5	22.5
Total Split (s)	32.0	32.0	32.0	28.0	58.0	30.0	30.0
Total Split (%)	35.6%	35.6%	35.6%	31.1%	64.4%	33.3%	33.3%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.5	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.5	5.5	5.5	5.5
Lead/Lag				Lead		Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 63 (70%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 19: Euclid Av. (SR-83) & SR-60 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	810	7	516	545	1183	0	0	1216	593
Future Volume (veh/h)	0	0	0	810	7	516	545	1183	0	0	1216	593
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				967	0	222	580	1259	0	0	1294	403
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				1044	0	464	472	2148	0	0	1024	457
Arrive On Green				0.29	0.00	0.29	0.52	1.00	0.00	0.00	0.28	0.28
Sat Flow, veh/h				3619	0	1610	1810	3705	0	0	3705	1610
Grp Volume(v), veh/h				967	0	222	580	1259	0	0	1294	403
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1810	1805	0	0	1805	1610
Q Serve(g_s), s				23.4	0.0	10.2	23.5	0.0	0.0	0.0	25.5	21.5
Cycle Q Clear(g_c), s				23.4	0.0	10.2	23.5	0.0	0.0	0.0	25.5	21.5
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1044	0	464	472	2148	0	0	1024	457
V/C Ratio(X)				0.93	0.00	0.48	1.23	0.59	0.00	0.00	1.26	0.88
Avail Cap(c_a), veh/h				1086	0	483	472	2148	0	0	1024	457
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.09	0.09	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				31.1	0.0	26.4	21.5	0.0	0.0	0.0	32.2	30.8
Incr Delay (d2), s/veh				12.6	0.0	0.3	104.2	0.1	0.0	0.0	126.3	21.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				11.2	0.0	3.7	19.2	0.0	0.0	0.0	28.4	10.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				43.7	0.0	26.7	125.7	0.1	0.0	0.0	158.6	51.9
LnGrp LOS				D	A	C	F	A	A	A	F	D
Approach Vol, veh/h					1189			1839			1697	
Approach Delay, s/veh					40.5			39.7			133.2	
Approach LOS					D			D			F	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	59.0		28.0	31.0		31.0						
Change Period (Y+Rc), s	5.5		4.5	5.5		5.0						
Max Green Setting (Gmax), s	52.5		23.5	24.5		27.0						
Max Q Clear Time (g_c+I1), s	2.0		25.5	27.5		25.4						
Green Ext Time (p_c), s	18.2		0.0	0.0		0.6						

Intersection Summary		
HCM 6th Ctrl Delay	73.5	
HCM 6th LOS	E	

Notes

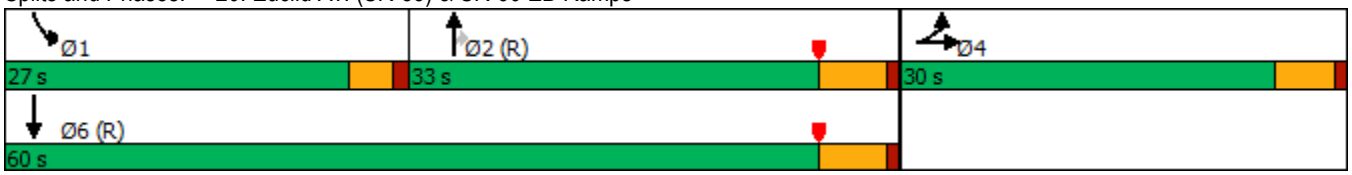
User approved volume balancing among the lanes for turning movement.

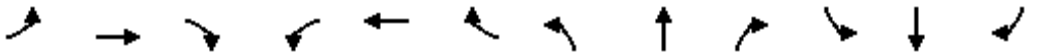
Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	520	3	1206	859	459	1567
Future Volume (vph)	520	3	1206	859	459	1567
Turn Type	Split	NA	NA	Perm	Prot	NA
Protected Phases	4	4	2		1	6
Permitted Phases				2		
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	6.0	6.0	10.0	10.0	5.0	10.0
Minimum Split (s)	11.0	11.0	22.5	22.5	9.0	22.5
Total Split (s)	30.0	30.0	33.0	33.0	27.0	60.0
Total Split (%)	33.3%	33.3%	36.7%	36.7%	30.0%	66.7%
Yellow Time (s)	4.0	4.0	4.5	4.5	3.0	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.5	5.5	4.0	5.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Min	C-Min	None	C-Min

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 20: Euclid Av. (SR-83) & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	520	3	653	0	0	0	0	1206	859	459	1567	0
Future Volume (veh/h)	520	3	653	0	0	0	0	1206	859	459	1567	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	547	3	632				0	1269	705	483	1649	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	503	2	445				0	1103	478	462	2186	0
Arrive On Green	0.28	0.28	0.28				0.00	0.31	0.31	0.51	1.00	0.00
Sat Flow, veh/h	1810	8	1604				0	3705	1566	1810	3705	0
Grp Volume(v), veh/h	547	0	635				0	1269	705	483	1649	0
Grp Sat Flow(s),veh/h/ln	1810	0	1611				0	1805	1566	1810	1805	0
Q Serve(g_s), s	25.0	0.0	25.0				0.0	27.5	27.5	23.0	0.0	0.0
Cycle Q Clear(g_c), s	25.0	0.0	25.0				0.0	27.5	27.5	23.0	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	503	0	448				0	1103	478	462	2186	0
V/C Ratio(X)	1.09	0.00	1.42				0.00	1.15	1.47	1.04	0.75	0.00
Avail Cap(c_a), veh/h	503	0	448				0	1103	478	462	2186	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.39	0.39	0.09	0.09	0.00
Uniform Delay (d), s/veh	32.5	0.0	32.5				0.0	31.3	31.2	22.0	0.0	0.0
Incr Delay (d2), s/veh	66.2	0.0	201.2				0.0	72.3	217.6	26.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.3	0.0	34.0				0.0	22.2	38.6	8.9	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	98.7	0.0	233.7				0.0	103.5	248.9	48.3	0.2	0.0
LnGrp LOS	F	A	F				A	F	F	F	A	A
Approach Vol, veh/h		1182						1974			2132	
Approach Delay, s/veh		171.2						155.4			11.1	
Approach LOS		F						F			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	27.0	33.0		30.0		60.0
Change Period (Y+Rc), s	4.0	5.5		5.0		5.5
Max Green Setting (Gmax), s	23.0	27.5		25.0		54.5
Max Q Clear Time (g_c+I1), s	25.0	29.5		27.0		2.0
Green Ext Time (p_c), s	0.0	0.0		0.0		28.4

Intersection Summary	
HCM 6th Ctrl Delay	100.8
HCM 6th LOS	F

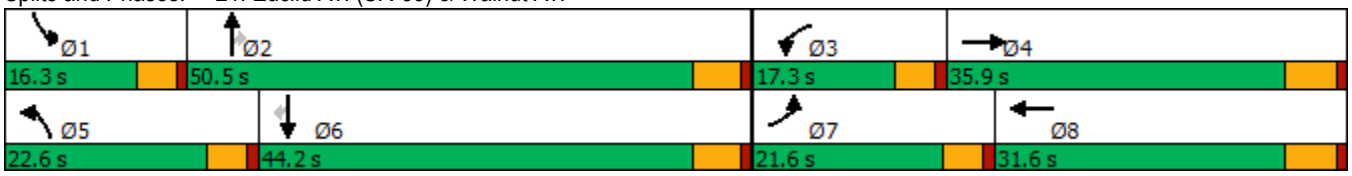
Notes

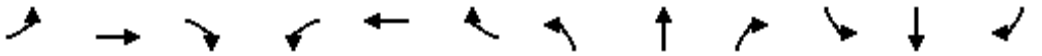
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	252	365	91	388	162	1582	58	189	1796	123
Future Volume (vph)	252	365	91	388	162	1582	58	189	1796	123
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.8	9.6	29.8	9.6	27.4	27.4	9.6	29.4	29.4
Total Split (s)	21.6	35.9	17.3	31.6	22.6	50.5	50.5	16.3	44.2	44.2
Total Split (%)	18.0%	29.9%	14.4%	26.3%	18.8%	42.1%	42.1%	13.6%	36.8%	36.8%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 117
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 21: Euclid Av. (SR-83) & Walnut Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	252	365	149	91	388	258	162	1582	58	189	1796	123
Future Volume (veh/h)	252	365	149	91	388	258	162	1582	58	189	1796	123
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1700	1900	1900
Adj Flow Rate, veh/h	265	384	121	96	408	232	171	1665	43	199	1891	108
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	252	771	240	119	460	259	198	2022	627	252	1838	570
Arrive On Green	0.15	0.28	0.28	0.07	0.21	0.21	0.12	0.39	0.39	0.08	0.35	0.35
Sat Flow, veh/h	1714	2710	843	1714	2225	1251	1714	5187	1609	3141	5187	1609
Grp Volume(v), veh/h	265	254	251	96	330	310	171	1665	43	199	1891	108
Grp Sat Flow(s),veh/h/ln	1714	1805	1748	1714	1805	1671	1714	1729	1609	1570	1729	1609
Q Serve(g_s), s	17.0	13.6	13.9	6.4	20.5	20.9	11.3	33.4	1.9	7.2	41.0	5.4
Cycle Q Clear(g_c), s	17.0	13.6	13.9	6.4	20.5	20.9	11.3	33.4	1.9	7.2	41.0	5.4
Prop In Lane	1.00		0.48	1.00		0.75	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	252	513	497	119	374	346	198	2022	627	252	1838	570
V/C Ratio(X)	1.05	0.50	0.50	0.81	0.88	0.90	0.86	0.82	0.07	0.79	1.03	0.19
Avail Cap(c_a), veh/h	252	513	497	188	402	372	267	2022	627	318	1838	570
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.4	34.5	34.6	53.1	44.5	44.7	50.3	31.7	22.1	52.3	37.4	25.9
Incr Delay (d2), s/veh	71.1	0.7	0.8	5.8	19.2	22.4	15.5	4.0	0.2	7.8	28.8	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.0	5.9	5.8	2.9	10.8	10.5	5.6	14.0	0.7	3.1	21.4	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	120.5	35.2	35.4	58.9	63.8	67.1	65.8	35.7	22.4	60.1	66.2	26.6
LnGrp LOS	F	D	D	E	E	E	E	D	C	E	F	C
Approach Vol, veh/h		770			736			1879			2198	
Approach Delay, s/veh		64.6			64.5			38.1			63.7	
Approach LOS		E			E			D			E	

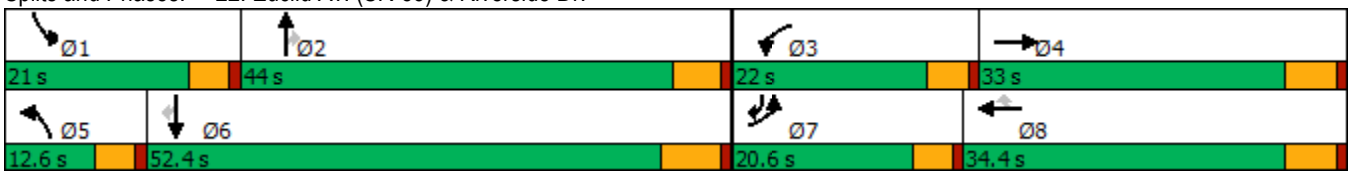
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.9	50.5	12.6	38.7	18.0	46.4	21.6	29.7
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	11.7	45.1	12.7	30.1	18.0	38.8	17.0	25.8
Max Q Clear Time (g_c+I1), s	9.2	35.4	8.4	15.9	13.3	43.0	19.0	22.9
Green Ext Time (p_c), s	0.1	7.0	0.0	2.3	0.1	0.0	0.0	1.0

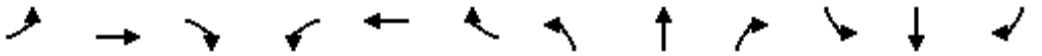
Intersection Summary	
HCM 6th Ctrl Delay	55.3
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	193	453	239	616	145	155	1317	201	219	1574	192
Future Volume (vph)	193	453	239	616	145	155	1317	201	219	1574	192
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4	3	8		5	2		1	6	7
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	25.8	9.6	31.8	31.8	9.6	30.4	30.4	9.6	34.5	9.6
Total Split (s)	20.6	33.0	22.0	34.4	34.4	12.6	44.0	44.0	21.0	52.4	20.6
Total Split (%)	17.2%	27.5%	18.3%	28.7%	28.7%	10.5%	36.7%	36.7%	17.5%	43.7%	17.2%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Euclid Av. (SR-83) & Riverside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	453	126	239	616	145	155	1317	201	219	1574	192
Future Volume (veh/h)	193	453	126	239	616	145	155	1317	201	219	1574	192
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	203	477	117	252	648	124	163	1386	172	231	1657	143
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	226	331	81	246	853	380	113	1151	513	232	1401	837
Arrive On Green	0.13	0.22	0.22	0.14	0.24	0.24	0.07	0.32	0.32	0.14	0.39	0.39
Sat Flow, veh/h	1714	1474	361	1714	3610	1610	1714	3610	1610	1714	3610	1609
Grp Volume(v), veh/h	203	0	594	252	648	124	163	1386	172	231	1657	143
Grp Sat Flow(s),veh/h/ln	1714	0	1835	1714	1805	1610	1714	1805	1610	1714	1805	1609
Q Serve(g_s), s	14.1	0.0	27.2	17.4	20.2	7.7	8.0	38.6	9.9	16.3	47.0	5.7
Cycle Q Clear(g_c), s	14.1	0.0	27.2	17.4	20.2	7.7	8.0	38.6	9.9	16.3	47.0	5.7
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	226	0	412	246	853	380	113	1151	513	232	1401	837
V/C Ratio(X)	0.90	0.00	1.44	1.02	0.76	0.33	1.44	1.20	0.34	1.00	1.18	0.17
Avail Cap(c_a), veh/h	226	0	412	246	853	380	113	1151	513	232	1401	837
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.7	0.0	47.0	51.8	43.1	38.3	56.5	41.3	31.5	52.3	37.1	15.3
Incr Delay (d2), s/veh	32.7	0.0	211.9	63.4	4.0	0.5	240.5	100.5	1.8	57.5	89.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	0.0	36.2	11.6	9.2	3.0	10.9	32.0	4.0	10.6	37.2	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.4	0.0	258.9	115.3	47.1	38.8	297.1	141.7	33.2	109.8	126.9	15.7
LnGrp LOS	F	A	F	F	D	D	F	F	C	F	F	B
Approach Vol, veh/h		797			1024			1721			2031	
Approach Delay, s/veh		214.4			62.9			145.6			117.1	
Approach LOS		F			E			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	45.1	22.0	33.0	12.6	53.5	20.6	34.4
Change Period (Y+Rc), s	4.6	* 6.5	4.6	5.8	4.6	6.5	4.6	5.8
Max Green Setting (Gmax), s	16.4	* 39	17.4	27.2	8.0	45.9	16.0	28.6
Max Q Clear Time (g_c+I1), s	18.3	40.6	19.4	29.2	10.0	49.0	16.1	22.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3

Intersection Summary	
HCM 6th Ctrl Delay	129.9
HCM 6th LOS	F

Notes

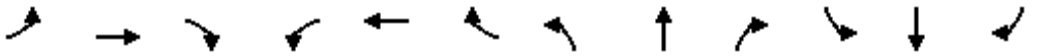
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	131	243	63	103	285	67	1415	180	70	1705	116
Future Volume (vph)	131	243	63	103	285	67	1415	180	70	1705	116
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	28.8	28.8	28.8	33.8	33.8	9.6	24.2	24.2	9.6	31.5	31.5
Total Split (s)	44.0	44.0	44.0	44.0	44.0	15.0	60.0	60.0	16.0	61.0	61.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	12.5%	50.0%	50.0%	13.3%	50.8%	50.8%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	3.6	4.2	4.2	3.6	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8		5.8	4.6	5.2	5.2	4.6	6.5	6.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 116.2
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: Euclid Av. (SR-83) & Chino Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	243	63	103	285	80	67	1415	180	70	1705	116
Future Volume (veh/h)	131	243	63	103	285	80	67	1415	180	70	1705	116
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	139	259	51	110	303	73	71	1505	167	74	1814	92
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	205	624	529	118	269	62	90	1702	759	94	1710	747
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.05	0.47	0.47	0.05	0.47	0.47
Sat Flow, veh/h	969	1900	1609	243	820	188	1714	3610	1610	1714	3610	1577
Grp Volume(v), veh/h	139	259	51	486	0	0	71	1505	167	74	1814	92
Grp Sat Flow(s),veh/h/ln	969	1900	1609	1251	0	0	1714	1805	1610	1714	1805	1577
Q Serve(g_s), s	0.0	12.3	2.6	25.9	0.0	0.0	4.8	43.9	7.1	5.0	55.0	3.8
Cycle Q Clear(g_c), s	36.5	12.3	2.6	38.2	0.0	0.0	4.8	43.9	7.1	5.0	55.0	3.8
Prop In Lane	1.00		1.00	0.23		0.15	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	205	624	529	449	0	0	90	1702	759	94	1710	747
V/C Ratio(X)	0.68	0.41	0.10	1.08	0.00	0.00	0.79	0.88	0.22	0.79	1.06	0.12
Avail Cap(c_a), veh/h	205	624	529	449	0	0	153	1702	759	168	1710	747
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.5	30.3	27.1	43.2	0.0	0.0	54.4	27.8	18.1	54.3	30.6	17.1
Incr Delay (d2), s/veh	8.6	0.4	0.1	66.4	0.0	0.0	5.7	7.1	0.7	5.5	40.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	5.5	1.0	21.0	0.0	0.0	2.1	18.5	2.6	2.2	30.6	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.0	30.8	27.1	109.7	0.0	0.0	60.2	35.0	18.8	59.8	70.6	17.4
LnGrp LOS	D	C	C	F	A	A	E	C	B	E	F	B
Approach Vol, veh/h		449			486			1743			1980	
Approach Delay, s/veh		35.4			109.7			34.4			67.8	
Approach LOS		D			F			C			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.9	61.3		44.0	10.7	61.5		44.0				
Change Period (Y+Rc), s	4.6	* 6.5		5.8	4.6	6.5		5.8				
Max Green Setting (Gmax), s	11.4	* 55		38.2	10.4	54.5		38.2				
Max Q Clear Time (g_c+I1), s	7.0	45.9		38.5	6.8	57.0		40.2				
Green Ext Time (p_c), s	0.0	6.1		0.0	0.0	0.0		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		56.5
HCM 6th LOS		E

Notes

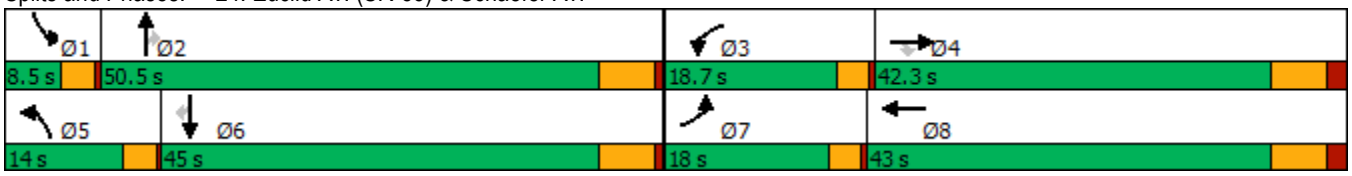
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

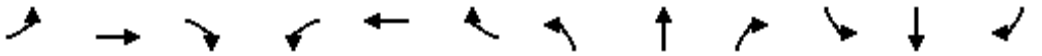
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	193	92	98	177	377	229	1376	44	39	1605	457
Future Volume (vph)	193	92	98	177	377	229	1376	44	39	1605	457
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.5	42.0	42.0	13.5	43.0	8.5	33.0	33.0	8.5	28.0	28.0
Total Split (s)	18.0	42.3	42.3	18.7	43.0	14.0	50.5	50.5	8.5	45.0	45.0
Total Split (%)	15.0%	35.3%	35.3%	15.6%	35.8%	11.7%	42.1%	42.1%	7.1%	37.5%	37.5%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	7.0	7.0	3.5	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Euclid Av. (SR-83) & Schaefer Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	92	98	177	377	186	229	1376	44	39	1605	457
Future Volume (veh/h)	193	92	98	177	377	186	229	1376	44	39	1605	457
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	208	99	86	190	405	198	246	1480	37	42	1726	457
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	207	561	476	215	361	177	150	1376	614	54	1173	522
Arrive On Green	0.12	0.30	0.30	0.13	0.30	0.30	0.09	0.38	0.38	0.03	0.32	0.32
Sat Flow, veh/h	1714	1900	1610	1714	1204	588	1714	3610	1610	1714	3610	1605
Grp Volume(v), veh/h	208	99	86	190	0	603	246	1480	37	42	1726	457
Grp Sat Flow(s),veh/h/ln	1714	1900	1610	1714	0	1792	1714	1805	1610	1714	1805	1605
Q Serve(g_s), s	14.5	4.6	4.8	13.1	0.0	36.0	10.5	45.7	1.7	2.9	39.0	32.2
Cycle Q Clear(g_c), s	14.5	4.6	4.8	13.1	0.0	36.0	10.5	45.7	1.7	2.9	39.0	32.2
Prop In Lane	1.00		1.00	1.00		0.33	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	207	561	476	215	0	538	150	1376	614	54	1173	522
V/C Ratio(X)	1.00	0.18	0.18	0.88	0.00	1.12	1.64	1.08	0.06	0.78	1.47	0.88
Avail Cap(c_a), veh/h	207	561	476	217	0	538	150	1376	614	71	1173	522
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.8	31.4	31.5	51.6	0.0	42.0	54.8	37.1	23.5	57.7	40.5	38.2
Incr Delay (d2), s/veh	63.6	0.1	0.1	30.8	0.0	76.8	316.0	47.4	0.0	23.3	216.7	15.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	2.1	1.8	7.3	0.0	26.7	17.5	27.5	0.7	1.6	51.4	14.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	116.3	31.5	31.6	82.4	0.0	118.8	370.8	84.6	23.6	81.0	257.2	53.6
LnGrp LOS	F	C	C	F	A	F	F	F	C	F	F	D
Approach Vol, veh/h		393			793			1763			2225	
Approach Delay, s/veh		76.4			110.0			123.2			212.1	
Approach LOS		E			F			F			F	

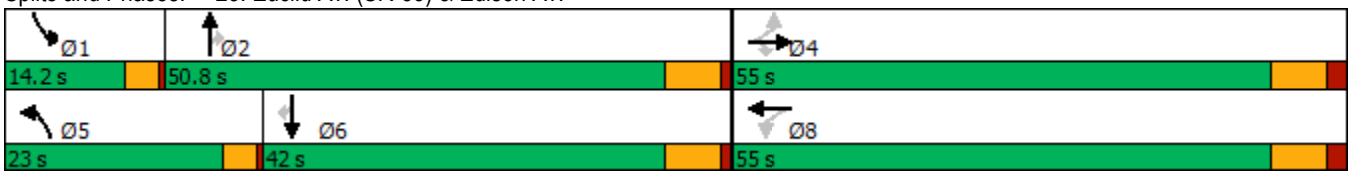
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	51.7	18.6	42.4	14.0	45.0	18.0	43.0
Change Period (Y+Rc), s	3.5	6.0	3.5	7.0	3.5	6.0	3.5	7.0
Max Green Setting (Gmax), s	5.0	44.5	15.2	35.3	10.5	39.0	14.5	36.0
Max Q Clear Time (g_c+I1), s	4.9	47.7	15.1	6.8	12.5	41.0	16.5	38.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0

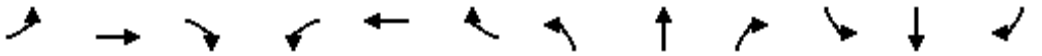
Intersection Summary	
HCM 6th Ctrl Delay	155.8
HCM 6th LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	196	971	160	207	1121	282	1277	151	286	1381	211
Future Volume (vph)	196	971	160	207	1121	282	1277	151	286	1381	211
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	46.0	46.0	46.0	49.0	49.0	8.5	29.0	29.0	8.5	40.0	40.0
Total Split (s)	55.0	55.0	55.0	55.0	55.0	23.0	50.8	50.8	14.2	42.0	42.0
Total Split (%)	45.8%	45.8%	45.8%	45.8%	45.8%	19.2%	42.3%	42.3%	11.8%	35.0%	35.0%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 25: Euclid Av. (SR-83) & Edison Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	196	971	160	207	1121	336	282	1277	151	286	1381	211
Future Volume (veh/h)	196	971	160	207	1121	336	282	1277	151	286	1381	211
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	204	1011	112	216	1168	345	294	1330	149	298	1439	169
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	60	760	644	60	563	166	279	1348	601	153	1083	471
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.16	0.37	0.37	0.09	0.30	0.30
Sat Flow, veh/h	333	1900	1609	483	1409	416	1714	3610	1610	1714	3610	1571
Grp Volume(v), veh/h	204	1011	112	216	0	1513	294	1330	149	298	1439	169
Grp Sat Flow(s),veh/h/ln	333	1900	1609	483	0	1825	1714	1805	1610	1714	1805	1571
Q Serve(g_s), s	0.0	48.0	5.4	0.0	0.0	48.0	19.5	43.9	7.7	10.7	36.0	10.1
Cycle Q Clear(g_c), s	48.0	48.0	5.4	48.0	0.0	48.0	19.5	43.9	7.7	10.7	36.0	10.1
Prop In Lane	1.00		1.00	1.00		0.23	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	760	644	60	0	730	279	1348	601	153	1083	471
V/C Ratio(X)	3.40	1.33	0.17	3.60	0.00	2.07	1.06	0.99	0.25	1.95	1.33	0.36
Avail Cap(c_a), veh/h	60	760	644	60	0	730	279	1348	601	153	1083	471
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.0	36.0	23.2	60.0	0.0	36.0	50.2	37.3	26.0	54.7	42.0	32.9
Incr Delay (d2), s/veh	1120.9	157.6	0.1	1210.2	0.0	487.5	69.2	21.3	0.2	450.2	154.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.5	54.1	2.0	22.0	0.0	118.8	13.3	21.8	2.8	23.5	38.2	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1180.9	193.6	23.3	1270.2	0.0	523.5	119.5	58.6	26.2	504.9	196.4	33.4
LnGrp LOS	F	F	C	F	A	F	F	E	C	F	F	C
Approach Vol, veh/h		1327			1729			1773			1906	
Approach Delay, s/veh		331.0			616.8			66.0			230.1	
Approach LOS		F			F			E			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.2	50.8		55.0	23.0	42.0		55.0				
Change Period (Y+Rc), s	3.5	6.0		7.0	3.5	6.0		7.0				
Max Green Setting (Gmax), s	10.7	44.8		48.0	19.5	36.0		48.0				
Max Q Clear Time (g_c+I1), s	12.7	45.9		50.0	21.5	38.0		50.0				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.0		0.0				

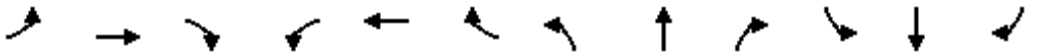
Intersection Summary		
HCM 6th Ctrl Delay	306.1	
HCM 6th LOS	F	

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	84	42	202	385	194	220	1516	133	114	1530	51
Future Volume (vph)	84	42	202	385	194	220	1516	133	114	1530	51
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	46.8	46.8	46.8	46.8	46.8	8.5	30.7	30.7	8.5	37.7	37.7
Total Split (s)	46.8	46.8	46.8	46.8	46.8	24.0	63.5	63.5	9.7	49.2	49.2
Total Split (%)	39.0%	39.0%	39.0%	39.0%	39.0%	20.0%	52.9%	52.9%	8.1%	41.0%	41.0%
Yellow Time (s)	4.3	4.3	4.3	4.3	4.3	3.0	4.7	4.7	3.0	4.7	4.7
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.8	4.8	3.5	5.7	5.7	3.5	5.7	5.7
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 113
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 26: Euclid Av. (SR-83) & Eucalyptus Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	42	202	385	194	187	220	1516	133	114	1530	51
Future Volume (veh/h)	84	42	202	385	194	187	220	1516	133	114	1530	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	86	43	120	393	198	183	224	1547	135	116	1561	41
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	235	681	577	466	326	301	251	1693	755	91	1356	604
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.15	0.47	0.47	0.05	0.38	0.38
Sat Flow, veh/h	964	1900	1610	1177	909	840	1714	3610	1610	1714	3610	1608
Grp Volume(v), veh/h	86	43	120	393	0	381	224	1547	135	116	1561	41
Grp Sat Flow(s),veh/h/ln	964	1900	1610	1177	0	1749	1714	1805	1610	1714	1805	1608
Q Serve(g_s), s	9.4	1.7	6.1	38.5	0.0	20.9	15.0	46.6	5.7	6.2	44.0	1.9
Cycle Q Clear(g_c), s	30.3	1.7	6.1	40.3	0.0	20.9	15.0	46.6	5.7	6.2	44.0	1.9
Prop In Lane	1.00		1.00	1.00		0.48	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	235	681	577	466	0	627	251	1693	755	91	1356	604
V/C Ratio(X)	0.37	0.06	0.21	0.84	0.00	0.61	0.89	0.91	0.18	1.28	1.15	0.07
Avail Cap(c_a), veh/h	235	681	577	466	0	627	300	1781	794	91	1356	604
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.3	24.7	26.0	37.9	0.0	30.8	49.1	28.9	18.0	55.5	36.6	23.4
Incr Delay (d2), s/veh	0.7	0.0	0.1	13.0	0.0	1.5	23.1	7.5	0.1	186.5	77.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.8	2.3	12.2	0.0	8.7	7.7	19.7	2.0	7.3	32.2	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.0	24.7	26.2	50.8	0.0	32.3	72.2	36.4	18.1	242.0	113.7	23.5
LnGrp LOS	D	C	C	D	A	C	E	D	B	F	F	C
Approach Vol, veh/h		249			774			1906			1718	
Approach Delay, s/veh		32.1			41.7			39.3			120.2	
Approach LOS		C			D			D			F	

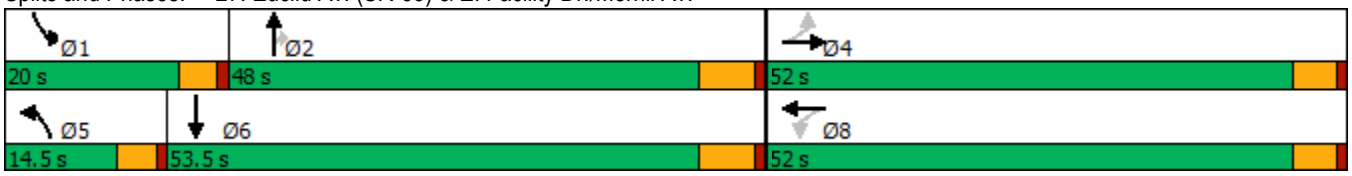
Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.7	60.6		46.8	20.7	49.7		46.8
Change Period (Y+Rc), s	3.5	5.7		4.8	3.5	5.7		4.8
Max Green Setting (Gmax), s	6.2	57.8		42.0	20.5	43.5		42.0
Max Q Clear Time (g_c+I1), s	8.2	48.6		32.3	17.0	46.0		42.3
Green Ext Time (p_c), s	0.0	6.3		0.5	0.1	0.0		0.0

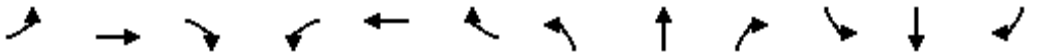
Intersection Summary		
HCM 6th Ctrl Delay		69.2
HCM 6th LOS		E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	10	10	385	60	13	1282	442	364	1450
Future Volume (vph)	10	10	385	60	13	1282	442	364	1450
Turn Type	Perm	NA	Perm	NA	Prot	NA	Perm	Prot	NA
Protected Phases		4		8	5	2		1	6
Permitted Phases	4		8				2		
Detector Phase	4	4	8	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	15.0	15.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	10.0	10.0	46.0	46.0	14.5	28.0	28.0	14.5	28.0
Total Split (s)	52.0	52.0	52.0	52.0	14.5	48.0	48.0	20.0	53.5
Total Split (%)	43.3%	43.3%	43.3%	43.3%	12.1%	40.0%	40.0%	16.7%	44.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.5	5.0	5.0	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	4.5	6.0	6.0	4.5	6.0
Lead/Lag					Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 27: Euclid Av. (SR-83) & E. Facility Dr./Merrill Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	10	21	385	60	458	13	1282	442	364	1450	49
Future Volume (veh/h)	10	10	21	385	60	458	13	1282	442	364	1450	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	10	10	21	397	62	445	13	1322	413	375	1495	37
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	158	164	298	308	41	297	50	1264	564	221	1618	40
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.03	0.35	0.35	0.13	0.45	0.45
Sat Flow, veh/h	307	419	762	676	105	757	1714	3610	1610	1714	3598	89
Grp Volume(v), veh/h	41	0	0	904	0	0	13	1322	413	375	749	783
Grp Sat Flow(s),veh/h/ln	1488	0	0	1538	0	0	1714	1805	1610	1714	1805	1882
Q Serve(g_s), s	0.0	0.0	0.0	45.2	0.0	0.0	0.9	42.0	26.9	15.5	46.8	47.1
Cycle Q Clear(g_c), s	1.8	0.0	0.0	47.0	0.0	0.0	0.9	42.0	26.9	15.5	46.8	47.1
Prop In Lane	0.24		0.51	0.44		0.49	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	620	0	0	646	0	0	50	1264	564	221	812	846
V/C Ratio(X)	0.07	0.00	0.00	1.40	0.00	0.00	0.26	1.05	0.73	1.69	0.92	0.93
Avail Cap(c_a), veh/h	620	0	0	646	0	0	143	1264	564	221	812	846
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.7	0.0	0.0	37.9	0.0	0.0	57.0	39.0	34.1	52.3	31.0	31.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	189.4	0.0	0.0	1.0	38.3	4.9	330.8	15.9	15.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	52.3	0.0	0.0	0.4	23.9	10.6	26.7	21.9	22.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.8	0.0	0.0	227.3	0.0	0.0	58.0	77.3	39.0	383.1	46.9	46.9
LnGrp LOS	C	A	A	F	A	A	E	F	D	F	D	D
Approach Vol, veh/h		41			904			1748			1907	
Approach Delay, s/veh		22.8			227.3			68.1			113.0	
Approach LOS		C			F			E			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.0	48.0		52.0	8.0	60.0		52.0				
Change Period (Y+Rc), s	4.5	6.0		5.0	4.5	6.0		5.0				
Max Green Setting (Gmax), s	15.5	42.0		47.0	10.0	47.5		47.0				
Max Q Clear Time (g_c+I1), s	17.5	44.0		3.8	2.9	49.1		49.0				
Green Ext Time (p_c), s	0.0	0.0		0.2	0.0	0.0		0.0				

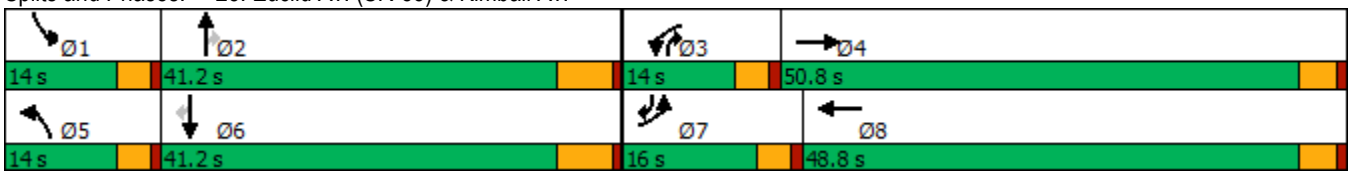
Intersection Summary												
HCM 6th Ctrl Delay			117.6									
HCM 6th LOS			F									

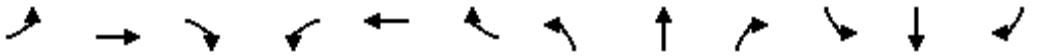
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	213	322	189	941	178	1216	57	280	1209	483
Future Volume (vph)	213	322	189	941	178	1216	57	280	1209	483
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	3	8	5	2	3	1	6	7
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	7
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	14.0	49.5	14.0	45.5	14.0	36.0	14.0	9.0	33.0	14.0
Total Split (s)	16.0	50.8	14.0	48.8	14.0	41.2	14.0	14.0	41.2	16.0
Total Split (%)	13.3%	42.3%	11.7%	40.7%	11.7%	34.3%	11.7%	11.7%	34.3%	13.3%
Yellow Time (s)	3.0	3.5	3.0	3.5	3.0	5.0	3.0	3.0	5.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.5	4.0	4.5	4.0	6.0	4.0	4.0	6.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	None	Min	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 119.4
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 28: Euclid Av. (SR-83) & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	213	322	109	189	941	418	178	1216	57	280	1209	483
Future Volume (veh/h)	213	322	109	189	941	418	178	1216	57	280	1209	483
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1900	1900	1800	1900	1900	1800	1900	1900	1700	1900	1900
Adj Flow Rate, veh/h	217	329	102	193	960	391	182	1241	46	286	1234	364
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	268	1024	312	145	942	380	145	1076	616	266	1076	611
Arrive On Green	0.09	0.38	0.38	0.08	0.38	0.38	0.08	0.30	0.30	0.08	0.30	0.30
Sat Flow, veh/h	3141	2724	831	1714	2511	1012	1714	3610	1610	3141	3610	1590
Grp Volume(v), veh/h	217	216	215	193	687	664	182	1241	46	286	1234	364
Grp Sat Flow(s),veh/h/ln	1570	1805	1750	1714	1805	1718	1714	1805	1610	1570	1805	1590
Q Serve(g_s), s	8.0	10.0	10.3	10.0	44.3	44.3	10.0	35.2	2.1	10.0	35.2	21.6
Cycle Q Clear(g_c), s	8.0	10.0	10.3	10.0	44.3	44.3	10.0	35.2	2.1	10.0	35.2	21.6
Prop In Lane	1.00		0.47	1.00		0.59	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	268	678	658	145	677	644	145	1076	616	266	1076	611
V/C Ratio(X)	0.81	0.32	0.33	1.33	1.01	1.03	1.25	1.15	0.07	1.08	1.15	0.60
Avail Cap(c_a), veh/h	319	708	686	145	677	644	145	1076	616	266	1076	611
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.1	26.1	26.2	54.0	36.9	36.9	54.0	41.4	23.2	54.0	41.4	29.1
Incr Delay (d2), s/veh	10.4	0.3	0.3	187.8	38.4	43.3	158.3	79.8	0.1	76.6	77.2	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	4.2	4.2	11.8	25.6	25.2	10.5	26.5	0.8	6.6	26.1	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.5	26.4	26.5	241.8	75.3	80.2	212.4	121.3	23.2	130.6	118.6	30.7
LnGrp LOS	E	C	C	F	F	F	F	F	C	F	F	C
Approach Vol, veh/h		648			1544			1469			1884	
Approach Delay, s/veh		38.8			98.2			129.5			103.5	
Approach LOS		D			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	41.2	14.0	48.9	14.0	41.2	14.1	48.8
Change Period (Y+Rc), s	4.0	6.0	4.0	4.5	4.0	6.0	4.0	4.5
Max Green Setting (Gmax), s	10.0	35.2	10.0	46.3	10.0	35.2	12.0	44.3
Max Q Clear Time (g_c+I1), s	12.0	37.2	12.0	12.3	12.0	37.2	10.0	46.3
Green Ext Time (p_c), s	0.0	0.0	0.0	2.4	0.0	0.0	0.1	0.0

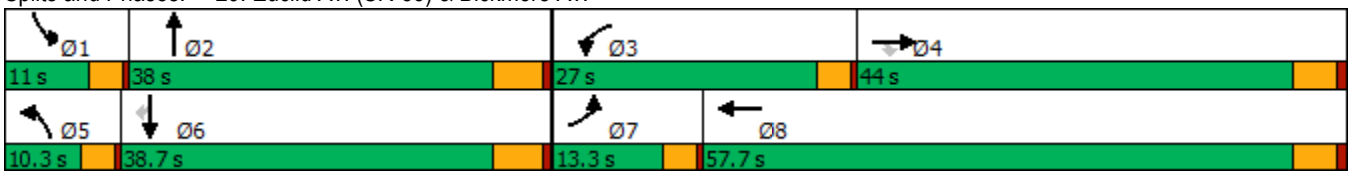
Intersection Summary	
HCM 6th Ctrl Delay	101.3
HCM 6th LOS	F

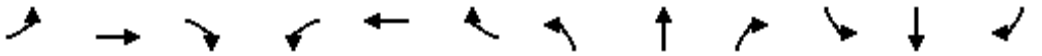
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	52	14	47	241	256	92	1098	107	1265	145
Future Volume (vph)	52	14	47	241	256	92	1098	107	1265	145
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.5	44.0	44.0	8.5	44.0	8.5	26.5	8.5	30.5	30.5
Total Split (s)	13.3	44.0	44.0	27.0	57.7	10.3	38.0	11.0	38.7	38.7
Total Split (%)	11.1%	36.7%	36.7%	22.5%	48.1%	8.6%	31.7%	9.2%	32.3%	32.3%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	3.0	4.5	3.0	4.5	4.5
All-Red Time (s)	0.5	1.0	1.0	0.5	1.0	0.5	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.5	3.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 95.9
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 29: Euclid Av. (SR-83) & Bickmore Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	14	47	241	256	215	92	1098	40	107	1265	145
Future Volume (veh/h)	52	14	47	241	256	215	92	1098	40	107	1265	145
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	58	16	48	268	284	200	102	1220	37	119	1406	113
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	74	326	276	305	318	224	128	1311	40	146	1362	607
Arrive On Green	0.04	0.17	0.17	0.18	0.31	0.31	0.07	0.37	0.37	0.09	0.38	0.38
Sat Flow, veh/h	1714	1900	1610	1714	1038	731	1714	3577	108	1714	3610	1610
Grp Volume(v), veh/h	58	16	48	268	0	484	102	615	642	119	1406	113
Grp Sat Flow(s),veh/h/ln	1714	1900	1610	1714	0	1768	1714	1805	1880	1714	1805	1610
Q Serve(g_s), s	2.9	0.6	2.2	13.4	0.0	23.0	5.2	28.8	28.9	6.0	33.2	4.1
Cycle Q Clear(g_c), s	2.9	0.6	2.2	13.4	0.0	23.0	5.2	28.8	28.9	6.0	33.2	4.1
Prop In Lane	1.00		1.00	1.00		0.41	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	74	326	276	305	0	542	128	662	689	146	1362	607
V/C Ratio(X)	0.79	0.05	0.17	0.88	0.00	0.89	0.80	0.93	0.93	0.81	1.03	0.19
Avail Cap(c_a), veh/h	191	842	714	458	0	1059	132	667	695	146	1362	607
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.7	30.4	31.1	35.3	0.0	29.2	40.1	26.8	26.8	39.6	27.4	18.4
Incr Delay (d2), s/veh	6.7	0.0	0.1	8.8	0.0	2.1	25.1	19.2	18.8	26.9	33.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.3	0.8	6.1	0.0	9.4	2.9	14.3	14.8	3.4	18.5	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.4	30.5	31.2	44.1	0.0	31.3	65.2	46.0	45.6	66.5	60.5	18.4
LnGrp LOS	D	C	C	D	A	C	E	D	D	E	F	B
Approach Vol, veh/h		122			752			1359			1638	
Approach Delay, s/veh		39.3			35.9			47.3			58.0	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	37.8	19.1	20.1	10.1	38.7	7.3	31.9
Change Period (Y+Rc), s	3.5	5.5	3.5	5.0	3.5	5.5	3.5	5.0
Max Green Setting (Gmax), s	7.5	32.5	23.5	39.0	6.8	33.2	9.8	52.7
Max Q Clear Time (g_c+I1), s	8.0	30.9	15.4	4.2	7.2	35.2	4.9	25.0
Green Ext Time (p_c), s	0.0	0.9	0.2	0.1	0.0	0.0	0.0	1.9

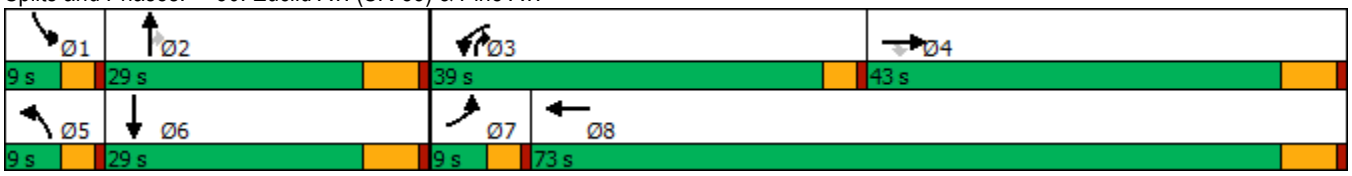
Intersection Summary	
HCM 6th Ctrl Delay	49.4
HCM 6th LOS	D

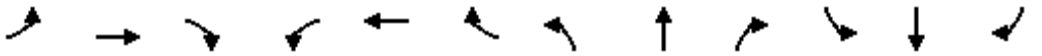
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	84	298	204	1319	964	171	1080	854	163	1032
Future Volume (vph)	84	298	204	1319	964	171	1080	854	163	1032
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4		3	8	5	2	3	1	6
Permitted Phases			4					2		
Detector Phase	7	4	4	3	8	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.0	43.0	43.0	9.0	45.0	9.0	11.0	9.0	9.0	29.0
Total Split (s)	9.0	43.0	43.0	39.0	73.0	9.0	29.0	39.0	9.0	29.0
Total Split (%)	7.5%	35.8%	35.8%	32.5%	60.8%	7.5%	24.2%	32.5%	7.5%	24.2%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0	3.0	3.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	4.0	6.0	4.0	4.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 30: Euclid Av. (SR-83) & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	298	204	1319	964	341	171	1080	854	163	1032	130
Future Volume (veh/h)	84	298	204	1319	964	341	171	1080	854	163	1032	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1700	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	87	307	0	1360	994	350	176	1113	624	168	1064	130
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	71	586		916	749	264	71	692	771	71	621	76
Arrive On Green	0.04	0.31	0.00	0.29	0.56	0.56	0.04	0.19	0.19	0.04	0.19	0.19
Sat Flow, veh/h	1714	1900	1610	3141	1342	473	1714	3610	1575	1714	3239	395
Grp Volume(v), veh/h	87	307	0	1360	0	1344	176	1113	624	168	593	601
Grp Sat Flow(s),veh/h/ln	1714	1900	1610	1570	0	1815	1714	1805	1575	1714	1805	1829
Q Serve(g_s), s	5.0	16.0	0.0	35.0	0.0	67.0	5.0	23.0	23.0	5.0	23.0	23.0
Cycle Q Clear(g_c), s	5.0	16.0	0.0	35.0	0.0	67.0	5.0	23.0	23.0	5.0	23.0	23.0
Prop In Lane	1.00		1.00	1.00		0.26	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	71	586		916	0	1013	71	692	771	71	346	351
V/C Ratio(X)	1.22	0.52		1.48	0.00	1.33	2.46	1.61	0.81	2.35	1.71	1.72
Avail Cap(c_a), veh/h	71	586		916	0	1013	71	692	771	71	346	351
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.5	34.2	0.0	42.5	0.0	26.5	57.5	48.5	26.5	57.5	48.5	48.5
Incr Delay (d2), s/veh	176.4	1.1	0.0	223.9	0.0	153.7	698.8	280.6	6.0	649.5	332.7	334.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	7.3	0.0	41.3	0.0	68.4	15.9	36.8	15.1	15.0	41.8	42.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	233.9	35.4	0.0	266.4	0.0	180.2	756.3	329.1	32.4	707.0	381.2	382.6
LnGrp LOS	F	D		F	A	F	F	F	C	F	F	F
Approach Vol, veh/h		394	A		2704			1913			1362	
Approach Delay, s/veh		79.2			223.6			271.6			422.0	
Approach LOS		E			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	29.0	39.0	43.0	9.0	29.0	9.0	73.0
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	5.0	23.0	35.0	37.0	5.0	23.0	5.0	67.0
Max Q Clear Time (g_c+I1), s	7.0	25.0	37.0	18.0	7.0	25.0	7.0	69.0
Green Ext Time (p_c), s	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	271.5
HCM 6th LOS	F

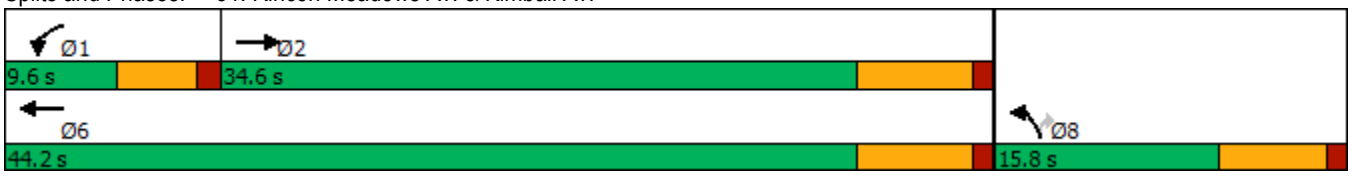
Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	709	85	1180	220	221
Future Volume (vph)	709	85	1180	220	221
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	2	1	6	8	
Permitted Phases					8
Detector Phase	2	1	6	8	8
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	26.2	9.6	16.2	15.8	15.8
Total Split (s)	34.6	9.6	44.2	15.8	15.8
Total Split (%)	57.7%	16.0%	73.7%	26.3%	26.3%
Yellow Time (s)	5.2	3.6	5.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	6.2	5.8	5.8
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	None	None	None	Max	Max

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 31: Rincon Meadows Av. & Kimball Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	709	39	85	1180	220	221
Future Volume (veh/h)	709	39	85	1180	220	221
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1800	1900	1800	1900
Adj Flow Rate, veh/h	731	34	88	1216	227	202
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1728	80	111	1203	286	268
Arrive On Green	0.49	0.49	0.06	0.63	0.17	0.17
Sat Flow, veh/h	3607	163	1714	1900	1714	1610
Grp Volume(v), veh/h	376	389	88	1216	227	202
Grp Sat Flow(s),veh/h/ln	1805	1871	1714	1900	1714	1610
Q Serve(g_s), s	8.0	8.0	3.0	38.0	7.6	7.2
Cycle Q Clear(g_c), s	8.0	8.0	3.0	38.0	7.6	7.2
Prop In Lane		0.09	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	888	920	111	1203	286	268
V/C Ratio(X)	0.42	0.42	0.79	1.01	0.79	0.75
Avail Cap(c_a), veh/h	888	920	143	1203	286	268
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.8	9.8	27.7	11.0	24.0	23.8
Incr Delay (d2), s/veh	0.3	0.3	20.5	28.6	20.0	17.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	2.4	1.7	17.2	4.3	3.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.1	10.1	48.2	39.6	44.0	41.4
LnGrp LOS	B	B	D	F	D	D
Approach Vol, veh/h	765			1304	429	
Approach Delay, s/veh	10.1			40.1	42.8	
Approach LOS	B			D	D	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	8.5	35.7				44.2	15.8
Change Period (Y+Rc), s	4.6	6.2				6.2	5.8
Max Green Setting (Gmax), s	5.0	28.4				38.0	10.0
Max Q Clear Time (g_c+I1), s	5.0	10.0				40.0	9.6
Green Ext Time (p_c), s	0.0	3.9				0.0	0.1

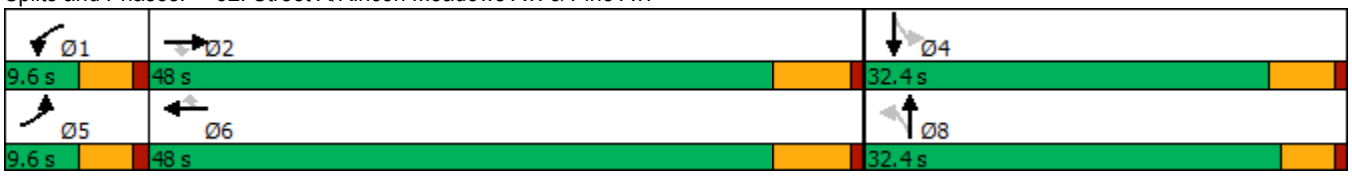
Intersection Summary		
HCM 6th Ctrl Delay		31.4
HCM 6th LOS		C

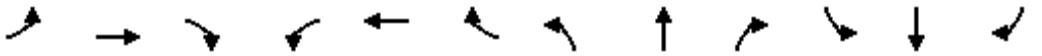
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	135	998	12	5	1963	280	34	5	134	2
Future Volume (vph)	135	998	12	5	1963	280	34	5	134	2
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	NA
Protected Phases	5	2		1	6			8		4
Permitted Phases			2			6	8		4	
Detector Phase	5	2	2	1	6	6	8	8	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.2	28.2	9.6	28.2	28.2	31.6	31.6	32.4	32.4
Total Split (s)	9.6	48.0	48.0	9.6	48.0	48.0	32.4	32.4	32.4	32.4
Total Split (%)	10.7%	53.3%	53.3%	10.7%	53.3%	53.3%	36.0%	36.0%	36.0%	36.0%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	5.2	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	6.2	4.6	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 78.5
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 32: Street A/Rincon Meadows Av. & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	998	12	5	1963	280	34	5	14	134	2	227
Future Volume (veh/h)	135	998	12	5	1963	280	34	5	14	134	2	227
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	147	1085	13	5	2134	304	37	5	15	146	2	247
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	108	2108	940	11	1904	849	156	86	257	353	3	328
Arrive On Green	0.06	0.58	0.58	0.01	0.53	0.53	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1714	3610	1610	1714	3610	1610	1088	419	1256	1340	13	1599
Grp Volume(v), veh/h	147	1085	13	5	2134	304	37	0	20	146	0	249
Grp Sat Flow(s),veh/h/ln	1714	1805	1610	1714	1805	1610	1088	0	1674	1340	0	1612
Q Serve(g_s), s	5.0	14.2	0.3	0.2	41.8	8.7	2.6	0.0	0.8	7.8	0.0	11.5
Cycle Q Clear(g_c), s	5.0	14.2	0.3	0.2	41.8	8.7	14.1	0.0	0.8	8.6	0.0	11.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.75	1.00		0.99
Lane Grp Cap(c), veh/h	108	2108	940	11	1904	849	156	0	343	353	0	331
V/C Ratio(X)	1.36	0.51	0.01	0.44	1.12	0.36	0.24	0.00	0.06	0.41	0.00	0.75
Avail Cap(c_a), veh/h	108	2108	940	108	1904	849	315	0	587	534	0	549
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.1	9.8	6.9	39.2	18.7	10.9	36.3	0.0	25.3	28.8	0.0	29.6
Incr Delay (d2), s/veh	210.0	0.9	0.0	9.8	62.0	1.2	0.8	0.0	0.1	0.8	0.0	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	4.4	0.1	0.1	29.7	2.8	0.7	0.0	0.3	2.5	0.0	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	247.2	10.7	6.9	49.0	80.7	12.1	37.0	0.0	25.4	29.6	0.0	33.1
LnGrp LOS	F	B	A	D	F	B	D	A	C	C	A	C
Approach Vol, veh/h		1245			2443			57			395	
Approach Delay, s/veh		38.6			72.1			33.0			31.8	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.1	52.5		21.6	9.6	48.0		21.6				
Change Period (Y+Rc), s	4.6	6.2		5.4	4.6	6.2		* 5.4				
Max Green Setting (Gmax), s	5.0	41.8		27.0	5.0	41.8		* 28				
Max Q Clear Time (g_c+I1), s	2.2	16.2		13.5	7.0	43.8		16.1				
Green Ext Time (p_c), s	0.0	7.7		1.6	0.0	0.0		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		57.7
HCM 6th LOS		E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	789	46	1064	201	217
Future Volume (vph)	789	46	1064	201	217
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	2	1	6	8	
Permitted Phases					8
Detector Phase	2	1	6	8	8
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	23.2	9.6	16.2	15.4	15.4
Total Split (s)	33.4	9.6	43.0	17.0	17.0
Total Split (%)	55.7%	16.0%	71.7%	28.3%	28.3%
Yellow Time (s)	5.2	3.6	5.2	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	6.2	5.4	5.4
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	None	None	None	Max	Max

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 33: Mill Creek Av. & Kimball Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	789	141	46	1064	201	217
Future Volume (veh/h)	789	141	46	1064	201	217
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1800	1900	1800	1900
Adj Flow Rate, veh/h	858	145	50	1157	218	210
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1512	256	81	1165	331	311
Arrive On Green	0.49	0.49	0.05	0.61	0.19	0.19
Sat Flow, veh/h	3184	522	1714	1900	1714	1610
Grp Volume(v), veh/h	501	502	50	1157	218	210
Grp Sat Flow(s),veh/h/ln	1805	1806	1714	1900	1714	1610
Q Serve(g_s), s	11.8	11.8	1.7	36.1	7.1	7.3
Cycle Q Clear(g_c), s	11.8	11.8	1.7	36.1	7.1	7.3
Prop In Lane		0.29	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	884	884	81	1165	331	311
V/C Ratio(X)	0.57	0.57	0.62	0.99	0.66	0.67
Avail Cap(c_a), veh/h	884	884	143	1165	331	311
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.8	10.8	28.1	11.5	22.4	22.4
Incr Delay (d2), s/veh	0.9	0.9	2.9	24.6	9.8	11.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	3.5	0.7	15.8	3.4	3.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.7	11.7	30.9	36.0	32.2	33.6
LnGrp LOS	B	B	C	D	C	C
Approach Vol, veh/h	1003			1207	428	
Approach Delay, s/veh	11.7			35.8	32.9	
Approach LOS	B			D	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	7.4	35.6				43.0	17.0
Change Period (Y+Rc), s	4.6	6.2				6.2	5.4
Max Green Setting (Gmax), s	5.0	27.2				36.8	11.6
Max Q Clear Time (g_c+I1), s	3.7	13.8				38.1	9.3
Green Ext Time (p_c), s	0.0	4.8				0.0	0.4

Intersection Summary		
HCM 6th Ctrl Delay		26.2
HCM 6th LOS		C

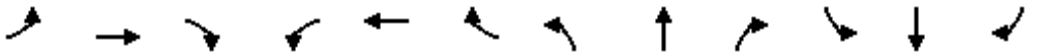
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	45	916	185	109	2090	137	108	16	33	37
Future Volume (vph)	45	916	185	109	2090	137	108	16	33	37
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	NA
Protected Phases	7	4		3	8			2		6
Permitted Phases			4			8	2		6	
Detector Phase	7	4	4	3	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	16.2	9.6	23.2	23.2	15.8	15.8	15.2	15.2
Total Split (s)	9.6	88.4	88.4	15.3	94.1	94.1	16.3	16.3	16.3	16.3
Total Split (%)	8.0%	73.7%	73.7%	12.8%	78.4%	78.4%	13.6%	13.6%	13.6%	13.6%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	5.2	4.8	4.8	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	6.2	5.8	5.8	5.2	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 119.4
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 34: Chino Corona Rd. & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	916	185	109	2090	137	108	16	39	33	37	50
Future Volume (veh/h)	45	916	185	109	2090	137	108	16	39	33	37	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	47	964	0	115	2200	117	114	17	36	35	39	52
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	60	2496		139	1402	1188	107	48	101	137	65	87
Arrive On Green	0.03	0.69	0.00	0.08	0.74	0.74	0.09	0.09	0.09	0.09	0.09	0.09
Sat Flow, veh/h	1714	3610	1610	1714	1900	1610	1256	543	1150	1300	738	984
Grp Volume(v), veh/h	47	964	0	115	2200	117	114	0	53	35	0	91
Grp Sat Flow(s),veh/h/ln	1714	1805	1610	1714	1900	1610	1256	0	1693	1300	0	1723
Q Serve(g_s), s	3.2	13.4	0.0	7.9	87.9	2.4	4.4	0.0	3.5	3.1	0.0	6.1
Cycle Q Clear(g_c), s	3.2	13.4	0.0	7.9	87.9	2.4	10.5	0.0	3.5	6.6	0.0	6.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.68	1.00		0.57
Lane Grp Cap(c), veh/h	60	2496		139	1402	1188	107	0	149	137	0	152
V/C Ratio(X)	0.79	0.39		0.83	1.57	0.10	1.06	0.00	0.36	0.26	0.00	0.60
Avail Cap(c_a), veh/h	72	2496		154	1402	1188	107	0	149	143	0	161
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.1	7.7	0.0	53.9	15.6	4.4	58.6	0.0	51.1	54.2	0.0	52.3
Incr Delay (d2), s/veh	31.0	0.5	0.0	25.0	259.7	0.2	104.8	0.0	1.4	1.0	0.0	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	4.4	0.0	4.2	127.4	0.7	6.3	0.0	1.5	1.0	0.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.1	8.2	0.0	79.0	275.3	4.6	163.4	0.0	52.6	55.2	0.0	57.8
LnGrp LOS	F	A		E	F	A	F	A	D	E	A	E
Approach Vol, veh/h		1011	A		2432			167			126	
Approach Delay, s/veh		11.9			253.0			128.2			57.1	
Approach LOS		B			F			F			E	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		16.3	14.3	88.6		16.3	8.7	94.1				
Change Period (Y+Rc), s		5.8	4.6	6.2		* 5.8	4.6	6.2				
Max Green Setting (Gmax), s		10.5	10.7	82.2		* 11	5.0	87.9				
Max Q Clear Time (g_c+I1), s		12.5	9.9	15.4		8.6	5.2	89.9				
Green Ext Time (p_c), s		0.0	0.0	7.4		0.1	0.0	0.0				

Intersection Summary		
HCM 6th Ctrl Delay	175.6	
HCM 6th LOS	F	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	10	0	102	0	10	10	28	10	0
Future Vol, veh/h	0	0	0	10	0	102	0	10	10	28	10	0
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	12	0	126	0	12	12	35	12	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	0	7.1	7	7.6
HCM LOS	-	A	A	A

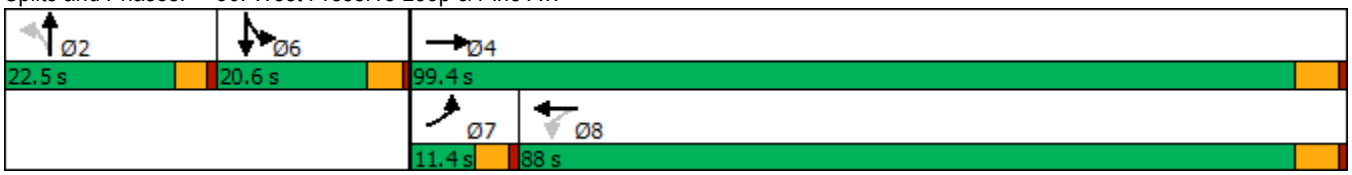
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	9%	74%
Vol Thru, %	50%	100%	0%	26%
Vol Right, %	50%	0%	91%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	20	0	112	38
LT Vol	0	0	10	28
Through Vol	10	0	0	10
RT Vol	10	0	102	0
Lane Flow Rate	25	0	138	47
Geometry Grp	1	1	1	1
Degree of Util (X)	0.027	0	0.134	0.056
Departure Headway (Hd)	3.879	4.131	3.495	4.31
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	920	0	1022	831
Service Time	1.913	2.178	1.532	2.336
HCM Lane V/C Ratio	0.027	0	0.135	0.057
HCM Control Delay	7	7.2	7.1	7.6
HCM Lane LOS	A	N	A	A
HCM 95th-tile Q	0.1	0	0.5	0.2

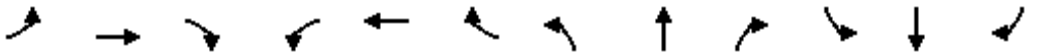
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	42	920	190	2060	123	2	94	2
Future Volume (vph)	42	920	190	2060	123	2	94	2
Turn Type	Prot	NA	Perm	NA	Perm	NA	Split	NA
Protected Phases	7	4		8		2	6	6
Permitted Phases			8		2			
Detector Phase	7	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	22.5	22.5	14.7	14.7
Total Split (s)	11.4	99.4	88.0	88.0	22.5	22.5	20.6	20.6
Total Split (%)	8.0%	69.8%	61.8%	61.8%	15.8%	15.8%	14.5%	14.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	3.5	3.5	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	4.5	4.5	4.7	4.7
Lead/Lag	Lead		Lag	Lag				
Lead-Lag Optimize?	Yes		Yes	Yes				
Recall Mode	None	None	None	None	Min	Min	Min	Min

Intersection Summary

Cycle Length: 142.5
Actuated Cycle Length: 137.6
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 36: West Preserve Loop & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	920	26	190	2060	339	123	2	31	94	2	153
Future Volume (veh/h)	42	920	26	190	2060	339	123	2	31	94	2	153
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	45	979	28	207	2191	351	134	2	34	100	2	161
Peak Hour Factor	0.94	0.94	0.92	0.92	0.94	0.94	0.92	0.92	0.92	0.94	0.92	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	57	2448	70	374	1925	300	162	8	138	197	2	183
Arrive On Green	0.03	0.68	0.68	0.62	0.62	0.62	0.09	0.09	0.09	0.12	0.12	0.12
Sat Flow, veh/h	1714	3584	103	569	3129	488	1810	90	1534	1714	20	1593
Grp Volume(v), veh/h	45	493	514	207	1238	1304	134	0	36	100	0	163
Grp Sat Flow(s),veh/h/ln	1714	1805	1882	569	1805	1812	1810	0	1624	1714	0	1613
Q Serve(g_s), s	3.5	15.9	15.9	33.4	82.2	82.2	9.7	0.0	2.8	7.3	0.0	13.3
Cycle Q Clear(g_c), s	3.5	15.9	15.9	40.2	82.2	82.2	9.7	0.0	2.8	7.3	0.0	13.3
Prop In Lane	1.00		0.05	1.00		0.27	1.00		0.94	1.00		0.99
Lane Grp Cap(c), veh/h	57	1233	1285	374	1110	1115	162	0	146	197	0	186
V/C Ratio(X)	0.79	0.40	0.40	0.55	1.12	1.17	0.83	0.00	0.25	0.51	0.00	0.88
Avail Cap(c_a), veh/h	87	1264	1318	374	1110	1115	244	0	219	204	0	192
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	64.1	9.2	9.2	20.0	25.7	25.7	59.8	0.0	56.6	55.6	0.0	58.2
Incr Delay (d2), s/veh	22.7	0.3	0.3	2.2	64.5	86.0	13.2	0.0	0.9	2.0	0.0	33.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	5.5	5.7	4.3	50.2	57.1	5.1	0.0	1.2	3.3	0.0	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.8	9.5	9.5	22.2	90.2	111.7	73.0	0.0	57.5	57.6	0.0	91.5
LnGrp LOS	F	A	A	C	F	F	E	A	E	E	A	F
Approach Vol, veh/h		1052			2749			170			263	
Approach Delay, s/veh		12.8			95.3			69.7			78.6	
Approach LOS		B			F			E			E	

Timer - Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		16.5		97.1		20.1	9.1	88.0				
Change Period (Y+Rc), s		4.5		5.8		4.7	4.6	5.8				
Max Green Setting (Gmax), s		18.0		93.6		15.9	6.8	82.2				
Max Q Clear Time (g_c+I1), s		11.7		17.9		15.3	5.5	84.2				
Green Ext Time (p_c), s		0.3		11.2		0.1	0.0	0.0				

Intersection Summary												
HCM 6th Ctrl Delay			72.7									
HCM 6th LOS			E									

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	878	94	763	347	273
Future Volume (vph)	878	94	763	347	273
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	2	1	6	8	
Permitted Phases					8
Detector Phase	2	1	6	8	8
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	32.2	9.6	16.2	14.6	14.6
Total Split (s)	32.9	11.0	43.9	16.1	16.1
Total Split (%)	54.8%	18.3%	73.2%	26.8%	26.8%
Yellow Time (s)	5.2	3.6	5.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	6.2	4.6	4.6
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	None	None	None	Max	Max

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 54.9
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 37: Main St. & Kimball Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	878	128	94	763	347	273
Future Volume (veh/h)	878	128	94	763	347	273
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1800	1900	1800	1900
Adj Flow Rate, veh/h	998	119	107	867	394	238
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1298	155	135	1078	382	359
Arrive On Green	0.40	0.40	0.08	0.57	0.22	0.22
Sat Flow, veh/h	3343	387	1714	1900	1714	1610
Grp Volume(v), veh/h	554	563	107	867	394	238
Grp Sat Flow(s),veh/h/ln	1805	1830	1714	1900	1714	1610
Q Serve(g_s), s	13.7	13.7	3.2	18.7	11.5	6.9
Cycle Q Clear(g_c), s	13.7	13.7	3.2	18.7	11.5	6.9
Prop In Lane		0.21	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	721	731	135	1078	382	359
V/C Ratio(X)	0.77	0.77	0.79	0.80	1.03	0.66
Avail Cap(c_a), veh/h	935	947	213	1389	382	359
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.4	13.4	23.3	8.9	20.0	18.3
Incr Delay (d2), s/veh	2.9	2.9	4.2	2.7	54.1	9.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	4.5	1.2	4.6	9.9	3.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.3	16.3	27.5	11.6	74.1	27.5
LnGrp LOS	B	B	C	B	F	C
Approach Vol, veh/h	1117			974	632	
Approach Delay, s/veh	16.3			13.3	56.6	
Approach LOS	B			B	E	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	8.7	26.8				35.5	16.1
Change Period (Y+Rc), s	4.6	6.2				6.2	4.6
Max Green Setting (Gmax), s	6.4	26.7				37.7	11.5
Max Q Clear Time (g_c+I1), s	5.2	15.7				20.7	13.5
Green Ext Time (p_c), s	0.0	4.8				5.3	0.0

Intersection Summary			
HCM 6th Ctrl Delay		24.6	
HCM 6th LOS		C	

Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	608	519	24	17	715	147	7	12	176	176	12	134
Future Vol, veh/h	608	519	24	17	715	147	7	12	176	176	12	134
Conflicting Peds, #/hr	0	0	2	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	310	-	-	120	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	640	546	25	18	753	155	7	13	185	185	13	141

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	908	0	0	573	0	0	2785	2785	288	2427	2720	831
Stage 1	-	-	-	-	-	-	1841	1841	-	867	867	-
Stage 2	-	-	-	-	-	-	944	944	-	1560	1853	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.5	6.9	7.3	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	758	-	-	1010	-	-	11	19	715	~ 20	21	373
Stage 1	-	-	-	-	-	-	80	127	-	350	373	-
Stage 2	-	-	-	-	-	-	317	344	-	~ 120	125	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	758	-	-	1008	-	-	-	~ 3	714	~ 2	~ 3	373
Mov Cap-2 Maneuver	-	-	-	-	-	-	11	19	-	~ -17	~ 2	-
Stage 1	-	-	-	-	-	-	12	20	-	~ 55	366	-
Stage 2	-	-	-	-	-	-	187	338	-	~ 5	20	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.7	0.2		
HCM LOS			-	-

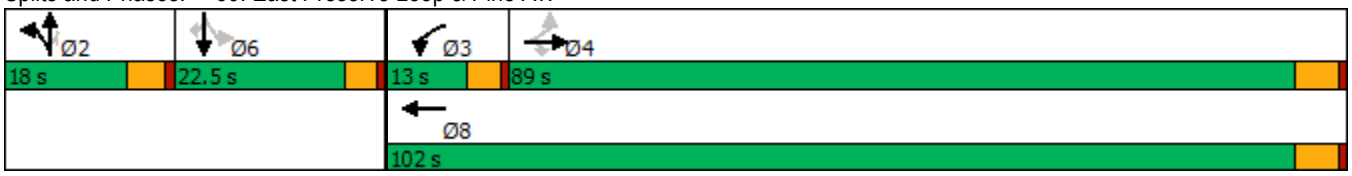
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	758	-	-	1008	-	-	+
HCM Lane V/C Ratio	-	0.844	-	-	0.018	-	-	-
HCM Control Delay (s)	-	29.8	-	-	8.6	-	-	-
HCM Lane LOS	-	D	-	-	A	-	-	-
HCM 95th %tile Q(veh)	-	9.8	-	-	0.1	-	-	-

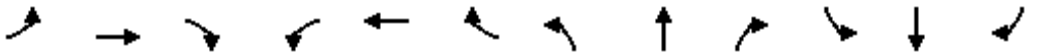
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	20	972	53	121	1822	575	185	400	133	165	192
Future Volume (vph)	20	972	53	121	1822	575	185	400	133	165	192
Turn Type	Perm	NA	Perm	Prot	NA	Split	NA	Perm	Perm	NA	Perm
Protected Phases		4		3	8	2	2			6	
Permitted Phases	4		4					2	6		6
Detector Phase	4	4	4	3	8	2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	35.8	35.8	35.8	9.6	15.8	10.1	10.1	10.1	22.5	22.5	22.5
Total Split (s)	89.0	89.0	89.0	13.0	102.0	18.0	18.0	18.0	22.5	22.5	22.5
Total Split (%)	62.5%	62.5%	62.5%	9.1%	71.6%	12.6%	12.6%	12.6%	15.8%	15.8%	15.8%
Yellow Time (s)	4.8	4.8	4.8	3.6	4.8	4.1	4.1	4.1	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	4.6	5.8	5.1	5.1	5.1	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes							
Recall Mode	None	None	None	None	None	Max	Max	Max	Min	Min	Min

Intersection Summary
Cycle Length: 142.5
Actuated Cycle Length: 134.1
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 39: East Preserve Loop & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	972	53	121	1822	45	575	185	400	133	165	192
Future Volume (veh/h)	20	972	53	121	1822	45	575	185	400	133	165	192
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1800	1900	1900	1700	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	1034	53	129	1938	49	612	201	405	145	179	209
Peak Hour Factor	0.92	0.94	0.94	0.94	0.94	0.92	0.94	0.92	0.94	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	107	1988	887	109	2336	59	307	186	157	247	259	220
Arrive On Green	0.55	0.55	0.55	0.06	0.65	0.65	0.10	0.10	0.10	0.14	0.14	0.14
Sat Flow, veh/h	222	3610	1610	1714	3598	91	3141	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	22	1034	53	129	968	1019	612	201	405	145	179	209
Grp Sat Flow(s),veh/h/ln	222	1805	1610	1714	1805	1884	1570	1900	1610	1810	1900	1610
Q Serve(g_s), s	11.1	23.8	2.0	8.4	53.5	54.6	12.9	12.9	12.9	9.9	11.9	17.0
Cycle Q Clear(g_c), s	52.7	23.8	2.0	8.4	53.5	54.6	12.9	12.9	12.9	9.9	11.9	17.0
Prop In Lane	1.00		1.00	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	107	1988	887	109	1172	1223	307	186	157	247	259	220
V/C Ratio(X)	0.21	0.52	0.06	1.18	0.83	0.83	1.99	1.08	2.57	0.59	0.69	0.95
Avail Cap(c_a), veh/h	124	2276	1015	109	1316	1373	307	186	157	247	259	220
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.8	18.7	13.8	61.8	17.5	17.7	59.5	59.5	59.5	53.5	54.3	56.6
Incr Delay (d2), s/veh	1.3	0.3	0.0	143.3	4.4	4.5	458.5	89.7	726.2	3.6	7.6	47.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	9.3	0.7	7.9	20.4	21.7	24.6	10.8	36.9	4.8	6.2	9.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.1	19.0	13.8	205.1	21.9	22.2	518.0	149.2	785.8	57.1	61.9	103.7
LnGrp LOS	D	B	B	F	C	C	F	F	F	E	E	F
Approach Vol, veh/h		1109			2116			1218			533	
Approach Delay, s/veh		19.2			33.2			546.2			77.0	
Approach LOS		B			C			F			E	

Timer - Assigned Phs		2	3	4		6		8				
Phs Duration (G+Y+Rc), s		18.0	13.0	78.5		22.5		91.5				
Change Period (Y+Rc), s		5.1	4.6	5.8		4.5		5.8				
Max Green Setting (Gmax), s		12.9	8.4	83.2		18.0		96.2				
Max Q Clear Time (g_c+I1), s		14.9	10.4	54.7		19.0		56.6				
Green Ext Time (p_c), s		0.0	0.0	11.9		0.0		29.1				

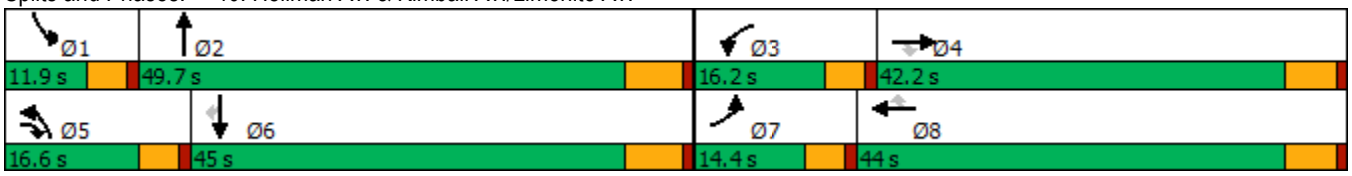
Intersection Summary												
HCM 6th Ctrl Delay			160.3									
HCM 6th LOS			F									

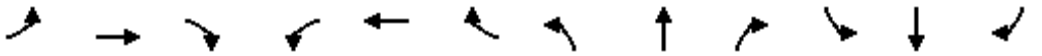
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	55	591	376	331	791	119	163	265	40	45	25
Future Volume (vph)	55	591	376	331	791	119	163	265	40	45	25
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	5	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	37.8	9.6	9.6	37.8	37.8	9.6	43.2	9.6	43.2	43.2
Total Split (s)	14.4	42.2	16.6	16.2	44.0	44.0	16.6	49.7	11.9	45.0	45.0
Total Split (%)	12.0%	35.2%	13.8%	13.5%	36.7%	36.7%	13.8%	41.4%	9.9%	37.5%	37.5%
Yellow Time (s)	3.6	4.8	3.6	3.6	4.8	4.8	3.6	5.2	3.6	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	4.6	5.8	5.8	4.6	6.2	4.6	6.2	6.2
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 97.4
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 40: Hellman Av. & Kimball Av./Limonite Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	591	376	331	791	119	163	265	298	40	45	25
Future Volume (veh/h)	55	591	376	331	791	119	163	265	298	40	45	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1700	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	58	622	396	348	833	125	172	279	314	42	47	26
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	73	688	774	400	1611	719	204	438	390	62	576	257
Arrive On Green	0.04	0.36	0.36	0.13	0.45	0.45	0.12	0.24	0.24	0.04	0.16	0.16
Sat Flow, veh/h	1714	1900	1610	3141	3610	1610	1714	1805	1610	1714	3610	1610
Grp Volume(v), veh/h	58	622	396	348	833	125	172	279	314	42	47	26
Grp Sat Flow(s),veh/h/ln	1714	1900	1610	1570	1805	1610	1714	1805	1610	1714	1805	1610
Q Serve(g_s), s	3.1	28.3	15.4	9.9	15.1	4.2	9.0	12.6	16.7	2.2	1.0	1.3
Cycle Q Clear(g_c), s	3.1	28.3	15.4	9.9	15.1	4.2	9.0	12.6	16.7	2.2	1.0	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	73	688	774	400	1611	719	204	438	390	62	576	257
V/C Ratio(X)	0.79	0.90	0.51	0.87	0.52	0.17	0.84	0.64	0.80	0.68	0.08	0.10
Avail Cap(c_a), veh/h	184	758	834	400	1611	719	226	861	768	137	1536	685
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.2	27.6	16.3	39.1	18.2	15.2	39.3	31.0	32.5	43.4	32.6	32.7
Incr Delay (d2), s/veh	6.9	13.5	0.5	17.8	0.3	0.1	20.7	1.5	3.9	4.9	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	14.2	5.1	4.6	5.7	1.4	4.7	5.3	6.4	1.0	0.4	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.1	41.1	16.8	56.8	18.5	15.3	60.1	32.5	36.4	48.3	32.7	32.9
LnGrp LOS	D	D	B	E	B	B	E	C	D	D	C	C
Approach Vol, veh/h		1076			1306			765			115	
Approach Delay, s/veh		32.7			28.4			40.3			38.5	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	28.3	16.2	38.8	15.4	20.7	8.5	46.5
Change Period (Y+Rc), s	4.6	6.2	4.6	5.8	4.6	6.2	4.6	5.8
Max Green Setting (Gmax), s	7.3	43.5	11.6	36.4	12.0	38.8	9.8	38.2
Max Q Clear Time (g_c+I1), s	4.2	18.7	11.9	30.3	11.0	3.3	5.1	17.1
Green Ext Time (p_c), s	0.0	3.4	0.0	2.7	0.0	0.3	0.0	5.8

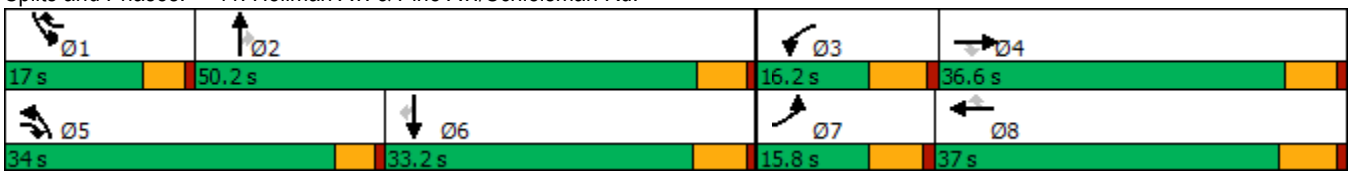
Intersection Summary	
HCM 6th Ctrl Delay	32.9
HCM 6th LOS	C

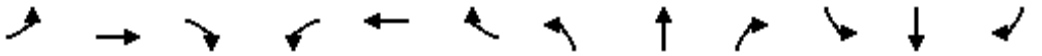
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	243	556	516	107	1123	332	605	499	146	111	166	37
Future Volume (vph)	243	556	516	107	1123	332	605	499	146	111	166	37
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	5	3	8	1	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	34.8	9.6	16.2	35.2	9.6	9.6	32.4	32.4	9.6	32.8	32.8
Total Split (s)	15.8	36.6	34.0	16.2	37.0	17.0	34.0	50.2	50.2	17.0	33.2	33.2
Total Split (%)	13.2%	30.5%	28.3%	13.5%	30.8%	14.2%	28.3%	41.8%	41.8%	14.2%	27.7%	27.7%
Yellow Time (s)	4.8	4.8	3.6	5.2	5.2	3.6	3.6	4.4	4.4	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	6.2	6.2	4.6	4.6	5.4	5.4	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 117.1
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 41: Hellman Av. & Pine Av./Schleisman Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	243	556	516	107	1123	332	605	499	146	111	166	37
Future Volume (veh/h)	243	556	516	107	1123	332	605	499	146	111	166	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1900	1900	1700	1900	1900	1700	1900	1900	1700	1900	1900
Adj Flow Rate, veh/h	248	567	389	109	1146	226	617	509	106	113	169	35
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	276	1328	759	276	1346	502	677	1458	650	164	868	387
Arrive On Green	0.09	0.26	0.26	0.09	0.26	0.26	0.22	0.40	0.40	0.05	0.24	0.24
Sat Flow, veh/h	3141	5187	1610	3141	5187	1610	3141	3610	1610	3141	3610	1610
Grp Volume(v), veh/h	248	567	389	109	1146	226	617	509	106	113	169	35
Grp Sat Flow(s),veh/h/ln	1570	1729	1610	1570	1729	1610	1570	1805	1610	1570	1805	1610
Q Serve(g_s), s	8.9	10.4	19.2	3.7	23.9	12.8	21.8	11.1	4.8	4.0	4.2	1.9
Cycle Q Clear(g_c), s	8.9	10.4	19.2	3.7	23.9	12.8	21.8	11.1	4.8	4.0	4.2	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	276	1328	759	276	1346	502	677	1458	650	164	868	387
V/C Ratio(X)	0.90	0.43	0.51	0.40	0.85	0.45	0.91	0.35	0.16	0.69	0.19	0.09
Avail Cap(c_a), veh/h	276	1403	782	276	1403	519	811	1458	650	342	868	387
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.5	35.4	21.0	49.1	40.1	31.4	43.6	23.6	21.7	53.1	34.5	33.6
Incr Delay (d2), s/veh	30.2	0.3	0.8	1.3	5.3	0.9	11.9	0.7	0.5	1.9	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	4.2	6.8	1.5	10.3	4.9	9.2	4.6	1.8	1.6	1.9	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.6	35.7	21.7	50.4	45.4	32.3	55.5	24.2	22.2	55.0	35.0	34.0
LnGrp LOS	F	D	C	D	D	C	E	C	C	E	C	C
Approach Vol, veh/h		1204			1481			1232			317	
Approach Delay, s/veh		40.6			43.7			39.7			42.0	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	51.8	16.2	35.4	29.1	33.2	15.8	35.8
Change Period (Y+Rc), s	4.6	* 5.8	6.2	* 6.2	4.6	5.8	5.8	6.2
Max Green Setting (Gmax), s	12.4	* 45	10.0	* 31	29.4	27.4	10.0	30.8
Max Q Clear Time (g_c+I1), s	6.0	13.1	5.7	21.2	23.8	6.2	10.9	25.9
Green Ext Time (p_c), s	0.1	5.2	0.1	4.5	0.7	1.3	0.0	3.6

Intersection Summary	
HCM 6th Ctrl Delay	41.6
HCM 6th LOS	D

Notes

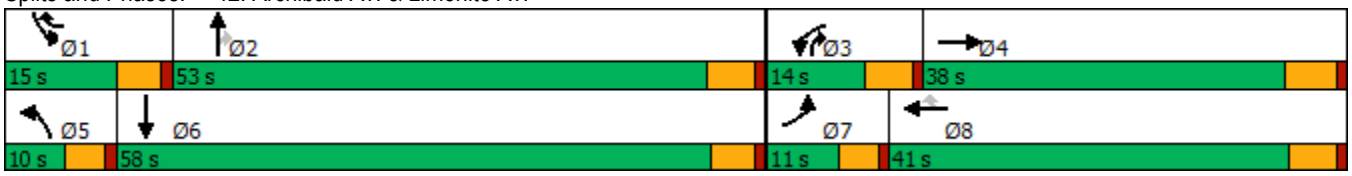
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

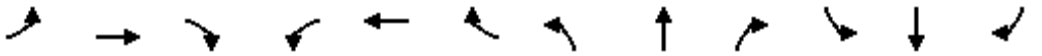
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	213	562	364	791	656	149	1108	372	406	766
Future Volume (vph)	213	562	364	791	656	149	1108	372	406	766
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	3	8	1	5	2	3	1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	1	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	6.0	6.0	6.0	5.0	6.0	6.0	6.0	6.0
Minimum Split (s)	9.6	35.8	11.3	36.3	11.0	9.6	46.3	11.3	11.0	43.0
Total Split (s)	11.0	38.0	14.0	41.0	15.0	10.0	53.0	14.0	15.0	58.0
Total Split (%)	9.2%	31.7%	11.7%	34.2%	12.5%	8.3%	44.2%	11.7%	12.5%	48.3%
Yellow Time (s)	3.6	4.8	4.3	4.3	4.0	3.6	4.3	4.3	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.3	5.3	5.0	4.6	5.3	5.3	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 42: Archibald Av. & Limonite Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	213	562	113	364	791	656	149	1108	372	406	766	186
Future Volume (veh/h)	213	562	113	364	791	656	149	1108	372	406	766	186
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	232	611	123	379	860	627	162	1154	341	423	798	202
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	96	416	84	130	562	599	81	755	756	150	642	162
Arrive On Green	0.05	0.27	0.27	0.07	0.30	0.30	0.04	0.40	0.40	0.08	0.44	0.44
Sat Flow, veh/h	1810	1535	309	1810	1900	1576	1810	1900	1610	1810	1463	370
Grp Volume(v), veh/h	232	0	734	379	860	627	162	1154	341	423	0	1000
Grp Sat Flow(s),veh/h/ln	1810	0	1844	1810	1900	1576	1810	1900	1610	1810	0	1833
Q Serve(g_s), s	6.4	0.0	32.7	8.7	35.7	35.7	5.4	48.0	17.2	10.0	0.0	53.0
Cycle Q Clear(g_c), s	6.4	0.0	32.7	8.7	35.7	35.7	5.4	48.0	17.2	10.0	0.0	53.0
Prop In Lane	1.00		0.17	1.00		1.00	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	96	0	499	130	562	599	81	755	756	150	0	804
V/C Ratio(X)	2.42	0.00	1.47	2.91	1.53	1.05	2.00	1.53	0.45	2.82	0.00	1.24
Avail Cap(c_a), veh/h	96	0	499	130	562	599	81	755	756	150	0	804
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.2	0.0	44.1	56.0	42.5	37.6	57.7	36.4	21.6	55.4	0.0	33.9
Incr Delay (d2), s/veh	669.5	0.0	222.3	879.2	248.1	49.6	492.0	244.6	0.5	838.9	0.0	119.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.8	0.0	45.6	35.7	54.5	24.7	13.4	71.9	6.2	39.3	0.0	48.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	726.7	0.0	266.4	935.3	290.7	87.2	549.7	281.0	22.1	894.3	0.0	153.8
LnGrp LOS	F	A	F	F	F	F	F	F	C	F	A	F
Approach Vol, veh/h		966			1866			1657			1423	
Approach Delay, s/veh		376.9			353.2			254.0			373.9	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	53.3	14.0	38.5	10.0	58.3	11.0	41.5
Change Period (Y+Rc), s	5.0	5.3	5.3	5.8	4.6	* 5.3	4.6	* 5.8
Max Green Setting (Gmax), s	10.0	47.7	8.7	32.2	5.4	* 53	6.4	* 36
Max Q Clear Time (g_c+I1), s	12.0	50.0	10.7	34.7	7.4	55.0	8.4	37.7
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	334.3
HCM 6th LOS	F

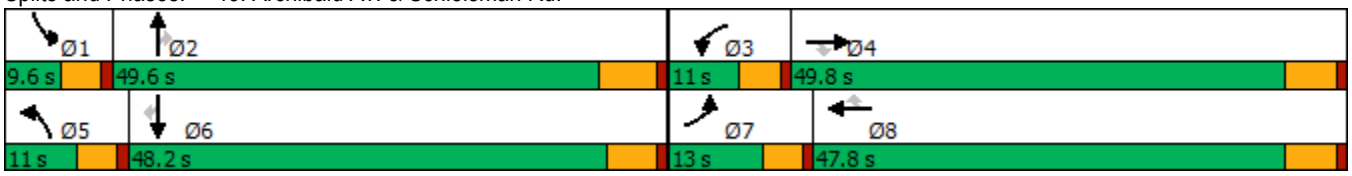
Notes

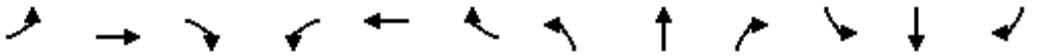
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	574	778	162	496	1065	360	284	938	388	319	696	526
Future Volume (vph)	574	778	162	496	1065	360	284	938	388	319	696	526
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	47.8	47.8	9.6	47.8	47.8	9.6	48.2	48.2	9.6	47.4	47.4
Total Split (s)	13.0	49.8	49.8	11.0	47.8	47.8	11.0	49.6	49.6	9.6	48.2	48.2
Total Split (%)	10.8%	41.5%	41.5%	9.2%	39.8%	39.8%	9.2%	41.3%	41.3%	8.0%	40.2%	40.2%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	5.2	5.2	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	6.2	6.2	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 117.1
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 43: Archibald Av. & Schleisman Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	574	778	162	496	1065	360	284	938	388	319	696	526
Future Volume (veh/h)	574	778	162	496	1065	360	284	938	388	319	696	526
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	638	864	116	551	1183	323	316	1042	358	354	773	462
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	254	1963	599	193	1874	574	193	1769	549	151	1707	523
Arrive On Green	0.07	0.38	0.38	0.06	0.36	0.36	0.06	0.34	0.34	0.04	0.33	0.33
Sat Flow, veh/h	3510	5187	1584	3510	5187	1590	3510	5187	1610	3510	5187	1588
Grp Volume(v), veh/h	638	864	116	551	1183	323	316	1042	358	354	773	462
Grp Sat Flow(s),veh/h/ln	1755	1729	1584	1755	1729	1590	1755	1729	1610	1755	1729	1588
Q Serve(g_s), s	8.4	14.4	5.7	6.4	21.9	18.9	6.4	19.3	21.9	5.0	13.7	32.0
Cycle Q Clear(g_c), s	8.4	14.4	5.7	6.4	21.9	18.9	6.4	19.3	21.9	5.0	13.7	32.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	254	1963	599	193	1874	574	193	1769	549	151	1707	523
V/C Ratio(X)	2.52	0.44	0.19	2.85	0.63	0.56	1.64	0.59	0.65	2.34	0.45	0.88
Avail Cap(c_a), veh/h	254	1963	599	193	1874	574	193	1936	601	151	1910	585
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.9	26.9	24.2	54.9	30.7	29.8	54.9	31.6	32.5	55.6	30.7	36.9
Incr Delay (d2), s/veh	693.5	0.7	0.7	847.1	1.6	3.9	308.1	0.4	2.2	625.2	0.2	13.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	28.0	5.8	2.2	25.5	9.0	7.5	11.0	7.7	8.5	15.2	5.4	13.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	747.4	27.7	24.9	902.0	32.3	33.7	363.0	32.0	34.7	680.8	30.9	50.8
LnGrp LOS	F	C	C	F	C	C	F	C	C	F	C	D
Approach Vol, veh/h		1618			2057			1716			1589	
Approach Delay, s/veh		311.3			265.5			93.5			181.5	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	45.9	11.0	49.8	11.0	44.5	13.0	47.8
Change Period (Y+Rc), s	4.6	6.2	4.6	5.8	4.6	* 6.2	4.6	5.8
Max Green Setting (Gmax), s	5.0	43.4	6.4	44.0	6.4	* 43	8.4	42.0
Max Q Clear Time (g_c+I1), s	7.0	23.9	8.4	16.4	8.4	34.0	10.4	23.9
Green Ext Time (p_c), s	0.0	7.8	0.0	6.4	0.0	4.2	0.0	8.6

Intersection Summary	
HCM 6th Ctrl Delay	214.7
HCM 6th LOS	F

Notes

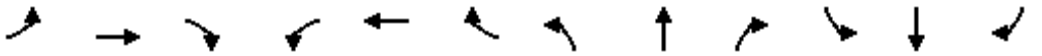
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	WBT	WBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1084	76	887	307	1001	0
Future Volume (vph)	1084	76	887	307	1001	0
Turn Type	NA	Perm	NA	Perm	Perm	NA
Protected Phases	2		6			4
Permitted Phases		2		6	4	
Detector Phase	2	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	22.8	22.8	15.8	15.8
Total Split (s)	23.0	23.0	23.0	23.0	42.0	42.0
Total Split (%)	35.4%	35.4%	35.4%	35.4%	64.6%	64.6%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max	Max	None	None

Intersection Summary
Cycle Length: 65
Actuated Cycle Length: 65
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Central Av. & SR-71 SB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱↱				↰	✣	
Traffic Volume (veh/h)	0	1084	76	0	887	307	0	0	0	1001	0	922
Future Volume (veh/h)	0	1084	76	0	887	307	0	0	0	1001	0	922
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	0	1166	0	0	954	0				936	196	796
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1373		0	1373					1008	183	742
Arrive On Green	0.00	0.26	0.00	0.00	0.26	0.00				0.56	0.56	0.56
Sat Flow, veh/h	0	5358	1610	0	5358	2834				1810	328	1332
Grp Volume(v), veh/h	0	1166	0	0	954	0				936	0	992
Grp Sat Flow(s),veh/h/ln	0	1729	1610	0	1729	1417				1810	0	1660
Q Serve(g_s), s	0.0	13.9	0.0	0.0	10.8	0.0				30.9	0.0	36.2
Cycle Q Clear(g_c), s	0.0	13.9	0.0	0.0	10.8	0.0				30.9	0.0	36.2
Prop In Lane	0.00		1.00	0.00		1.00				1.00		0.80
Lane Grp Cap(c), veh/h	0	1373		0	1373					1008	0	925
V/C Ratio(X)	0.00	0.85		0.00	0.70					0.93	0.00	1.07
Avail Cap(c_a), veh/h	0	1373		0	1373					1008	0	925
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	22.7	0.0	0.0	21.5	0.0				13.2	0.0	14.4
Incr Delay (d2), s/veh	0.0	6.7	0.0	0.0	2.9	0.0				14.3	0.0	51.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.7	0.0	0.0	4.2	0.0				12.6	0.0	22.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	29.4	0.0	0.0	24.5	0.0				27.5	0.0	65.6
LnGrp LOS	A	C		A	C					C	A	F
Approach Vol, veh/h		1166	A		954	A					1928	
Approach Delay, s/veh		29.4			24.5						47.1	
Approach LOS		C			C						D	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		23.0		42.0		23.0						
Change Period (Y+Rc), s		5.8		5.8		5.8						
Max Green Setting (Gmax), s		17.2		36.2		17.2						
Max Q Clear Time (g_c+I1), s		15.9		38.2		12.8						
Green Ext Time (p_c), s		1.0		0.0		2.8						

Intersection Summary												
HCM 6th Ctrl Delay			36.7									
HCM 6th LOS			D									

Notes

User approved volume balancing among the lanes for turning movement.

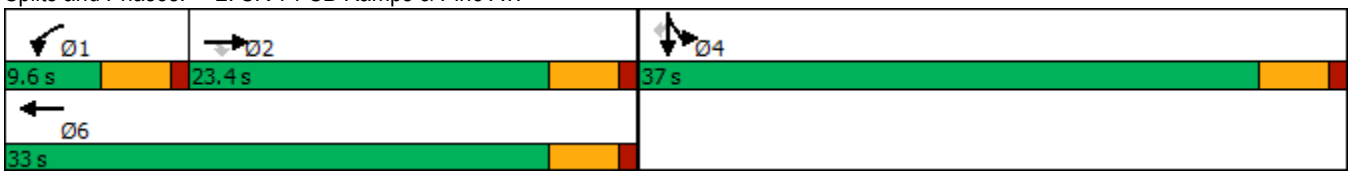
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

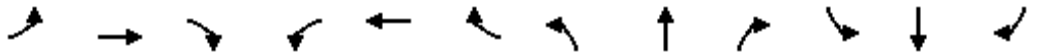
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	441	45	121	513	8	557
Future Volume (vph)	441	45	121	513	8	557
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	21.7	21.7	9.6	21.7	35.7	35.7
Total Split (s)	23.4	23.4	9.6	33.0	37.0	37.0
Total Split (%)	33.4%	33.4%	13.7%	47.1%	52.9%	52.9%
Yellow Time (s)	3.7	3.7	3.6	3.7	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7	4.6	4.7	4.7	4.7
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Max	Max

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 69.9
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: SR-71 SB Ramps & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	441	45	121	513	0	0	0	0	797	8	557
Future Volume (veh/h)	0	441	45	121	513	0	0	0	0	797	8	557
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	464	23	127	540	0				839	8	329
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	506	429	129	1457	0				828	8	744
Arrive On Green	0.00	0.27	0.27	0.07	0.40	0.00				0.46	0.46	0.46
Sat Flow, veh/h	0	1900	1610	1810	3705	0				1793	17	1610
Grp Volume(v), veh/h	0	464	23	127	540	0				847	0	329
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	16.6	0.7	4.9	7.3	0.0				32.3	0.0	9.7
Cycle Q Clear(g_c), s	0.0	16.6	0.7	4.9	7.3	0.0				32.3	0.0	9.7
Prop In Lane	0.00		1.00	1.00		0.00				0.99		1.00
Lane Grp Cap(c), veh/h	0	506	429	129	1457	0				836	0	744
V/C Ratio(X)	0.00	0.92	0.05	0.98	0.37	0.00				1.01	0.00	0.44
Avail Cap(c_a), veh/h	0	508	431	129	1461	0				836	0	744
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	24.9	19.1	32.4	14.6	0.0				18.8	0.0	12.7
Incr Delay (d2), s/veh	0.0	21.8	0.1	73.0	0.2	0.0				34.4	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.7	0.3	4.6	2.7	0.0				19.8	0.0	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	46.7	19.2	105.4	14.8	0.0				53.2	0.0	14.6
LnGrp LOS	A	D	B	F	B	A				F	A	B
Approach Vol, veh/h		487			667						1176	
Approach Delay, s/veh		45.4			32.1						42.4	
Approach LOS		D			C						D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.6	23.3		37.0		32.9
Change Period (Y+Rc), s	4.6	* 4.7		* 4.7		* 4.7
Max Green Setting (Gmax), s	5.0	* 19		* 32		* 28
Max Q Clear Time (g_c+I1), s	6.9	18.6		34.3		9.3
Green Ext Time (p_c), s	0.0	0.0		0.0		4.4

Intersection Summary	
HCM 6th Ctrl Delay	40.1
HCM 6th LOS	D

Notes

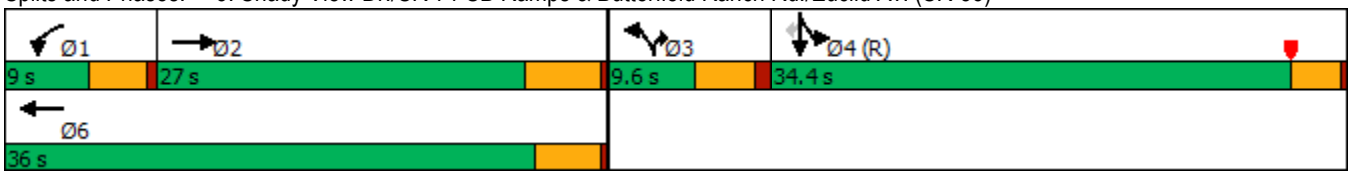
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

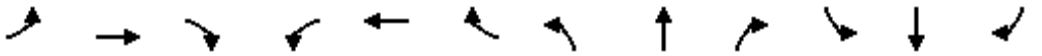
Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	987	170	308	20	169	1040	75	37
Future Volume (vph)	987	170	308	20	169	1040	75	37
Turn Type	NA	Prot	NA	Prot	Prot	Split	NA	Perm
Protected Phases	2	1	6	3	3	4	4	
Permitted Phases								4
Detector Phase	2	1	6	3	3	4	4	4
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	9.0	26.5	9.5	9.5	32.5	32.5	32.5
Total Split (s)	27.0	9.0	36.0	9.6	9.6	34.4	34.4	34.4
Total Split (%)	33.8%	11.3%	45.0%	12.0%	12.0%	43.0%	43.0%	43.0%
Yellow Time (s)	4.5	3.5	4.0	3.5	3.5	3.0	3.0	3.0
All-Red Time (s)	0.5	0.5	0.5	1.0	1.0	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	4.5	4.5	4.5	3.5	3.5	3.5
Lead/Lag	Lag	Lead		Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	None	None	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 4:SBTL, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 3: Shady View Dr./SR-71 SB Ramps & Butterfield Ranch Rd./Euclid Av. (SR-83)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	987	67	170	308	0	20	0	169	1040	75	37
Future Volume (veh/h)	0	987	67	170	308	0	20	0	169	1040	75	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	1900	0	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	1028	58	177	321	0	21	0	117	1139	0	12
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	955	54	113	1399		0	0	0	1832	0	815
Arrive On Green	0.00	0.28	0.28	0.02	0.13	0.00	0.00	0.00	0.00	0.51	0.00	0.51
Sat Flow, veh/h	0	3569	196	1810	3705	0		0		3619	0	1610
Grp Volume(v), veh/h	0	534	552	177	321	0		0.0		1139	0	12
Grp Sat Flow(s),veh/h/ln	0	1805	1865	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	22.0	22.0	5.0	6.4	0.0				18.1	0.0	0.3
Cycle Q Clear(g_c), s	0.0	22.0	22.0	5.0	6.4	0.0				18.1	0.0	0.3
Prop In Lane	0.00		0.11	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	496	513	113	1399					1832	0	815
V/C Ratio(X)	0.00	1.08	1.08	1.57	0.23					0.62	0.00	0.01
Avail Cap(c_a), veh/h	0	496	513	113	1421					1832	0	815
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.48	0.48	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	29.0	29.0	39.2	24.2	0.0				14.2	0.0	9.8
Incr Delay (d2), s/veh	0.0	62.4	61.8	273.9	0.0	0.0				1.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	17.2	17.7	10.8	2.6	0.0				6.6	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	91.4	90.8	313.1	24.2	0.0				15.8	0.0	9.9
LnGrp LOS	A	F	F	F	C					B	A	A
Approach Vol, veh/h		1086			498	A					1151	
Approach Delay, s/veh		91.1			126.9						15.8	
Approach LOS		F			F						B	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.0	27.0		44.0		36.0						
Change Period (Y+Rc), s	4.0	5.0		3.5		* 5						
Max Green Setting (Gmax), s	5.0	22.0		30.9		* 32						
Max Q Clear Time (g_c+I1), s	7.0	24.0		20.1		8.4						
Green Ext Time (p_c), s	0.0	0.0		3.6		1.5						

Intersection Summary	
HCM 6th Ctrl Delay	65.9
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

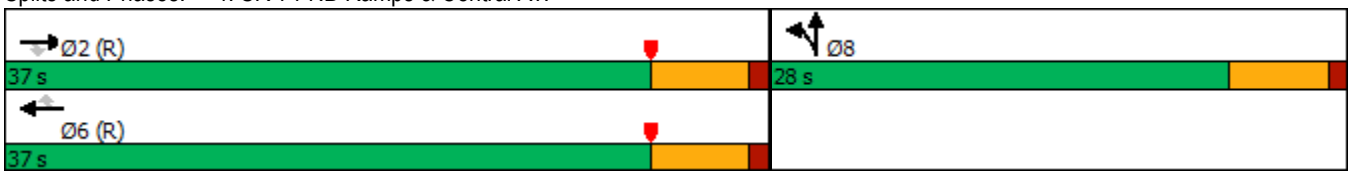
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	1610	475	1034	782	159	0
Future Volume (vph)	1610	475	1034	782	159	0
Turn Type	NA	Perm	NA	Perm	Split	NA
Protected Phases	2		6		8	8
Permitted Phases		2		6		
Detector Phase	2	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	15.8	15.8	22.8	22.8
Total Split (s)	37.0	37.0	37.0	37.0	28.0	28.0
Total Split (%)	56.9%	56.9%	56.9%	56.9%	43.1%	43.1%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 63.9 (98%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 4: SR-71 NB Ramps & Central Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1610	475	0	1034	782	159	0	390	0	0	0
Future Volume (veh/h)	0	1610	475	0	1034	782	159	0	390	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	0	1660	0	0	1066	0	164	0	221			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	0	3321		0	3321		328	0	292			
Arrive On Green	0.00	0.64	0.00	0.00	0.64	0.00	0.18	0.00	0.18			
Sat Flow, veh/h	0	5358	1610	0	5358	1610	1810	0	1610			
Grp Volume(v), veh/h	0	1660	0	0	1066	0	164	0	221			
Grp Sat Flow(s),veh/h/ln	0	1729	1610	0	1729	1610	1810	0	1610			
Q Serve(g_s), s	0.0	11.0	0.0	0.0	6.0	0.0	5.3	0.0	8.5			
Cycle Q Clear(g_c), s	0.0	11.0	0.0	0.0	6.0	0.0	5.3	0.0	8.5			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3321		0	3321		328	0	292			
V/C Ratio(X)	0.00	0.50		0.00	0.32		0.50	0.00	0.76			
Avail Cap(c_a), veh/h	0	3321		0	3321		618	0	550			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.26	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	6.2	0.0	0.0	5.3	0.0	24.0	0.0	25.3			
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.3	0.0	1.2	0.0	4.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	2.4	0.0	0.0	1.4	0.0	2.1	0.0	3.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	6.3	0.0	0.0	5.5	0.0	25.1	0.0	29.3			
LnGrp LOS	A	A		A	A		C	A	C			
Approach Vol, veh/h		1660	A		1066	A		385				
Approach Delay, s/veh		6.3			5.5			27.5				
Approach LOS		A			A			C				

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		47.4				47.4		17.6				
Change Period (Y+Rc), s		5.8				5.8		5.8				
Max Green Setting (Gmax), s		31.2				31.2		22.2				
Max Q Clear Time (g_c+I1), s		13.0				8.0		10.5				
Green Ext Time (p_c), s		10.7				7.3		1.3				

Intersection Summary		
HCM 6th Ctrl Delay	8.7	
HCM 6th LOS	A	

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	329.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	360	878	0	0	511	500	123	3	232	0	0	0
Future Vol, veh/h	360	878	0	0	511	500	123	3	232	0	0	0
Peak Hour Factor	0.86	0.92	0.86	0.92	0.92	0.92	0.86	0.86	0.92	0.92	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	419	954	0	0	555	543	143	3	252	0	0	0
Number of Lanes	2	1	0	0	1	0	1	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	142.7	674.2	25.8
HCM LOS	F	F	D

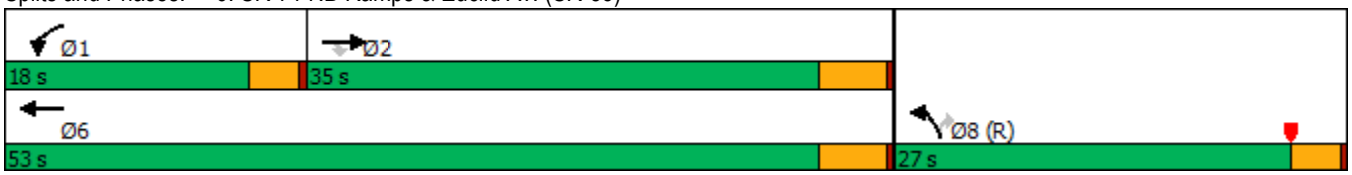
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1
Vol Left, %	100%	5%	100%	100%	0%	0%
Vol Thru, %	0%	1%	0%	0%	100%	51%
Vol Right, %	0%	94%	0%	0%	0%	49%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	111	247	180	180	878	1011
LT Vol	111	12	180	180	0	0
Through Vol	0	3	0	0	878	511
RT Vol	0	232	0	0	0	500
Lane Flow Rate	129	270	209	209	954	1099
Geometry Grp	8	8	7	7	7	8
Degree of Util (X)	0.324	0.596	0.428	0.428	1.369	2.442
Departure Headway (Hd)	12.111	10.884	8.983	8.983	6.673	8.514
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	299	335	404	404	554	440
Service Time	9.811	8.584	6.683	6.683	4.373	6.214
HCM Lane V/C Ratio	0.431	0.806	0.517	0.517	1.722	2.498
HCM Control Delay	20.5	28.4	18.2	18.2	197.3	674.2
HCM Lane LOS	C	D	C	C	F	F
HCM 95th-tile Q	1.4	3.6	2.1	2.1	33.2	81

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1025	6	54	1632	181	1272
Future Volume (vph)	1025	6	54	1632	181	1272
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	32.5	32.5	8.5	9.5	8.5	8.5
Total Split (s)	35.0	35.0	18.0	53.0	27.0	27.0
Total Split (%)	43.8%	43.8%	22.5%	66.3%	33.8%	33.8%
Yellow Time (s)	4.0	4.0	3.0	4.0	3.0	3.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	3.5	4.5	3.5	3.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 9.5 (12%), Referenced to phase 4: and 8:NBL, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 6: SR-71 NB Ramps & Euclid Av. (SR-83)





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1025	6	54	1632	181	1272
Future Volume (veh/h)	1025	6	54	1632	181	1272
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1192	0	63	1898	210	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1768		85	2096	1121	
Arrive On Green	0.98	0.00	0.05	0.58	0.32	0.00
Sat Flow, veh/h	3705	1610	1810	3705	3510	1610
Grp Volume(v), veh/h	1192	0	63	1898	210	0
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805	1755	1610
Q Serve(g_s), s	1.6	0.0	2.7	37.2	3.5	0.0
Cycle Q Clear(g_c), s	1.6	0.0	2.7	37.2	3.5	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1768		85	2096	1121	
V/C Ratio(X)	0.67		0.74	0.91	0.19	
Avail Cap(c_a), veh/h	1768		328	2189	1121	
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.4	0.0	37.6	14.8	19.7	0.0
Incr Delay (d2), s/veh	0.1	0.0	8.9	5.7	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	1.3	12.3	1.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.5	0.0	46.6	20.6	20.1	0.0
LnGrp LOS	A		D	C	C	
Approach Vol, veh/h	1192	A		1961	210	A
Approach Delay, s/veh	0.5			21.4	20.1	
Approach LOS	A			C	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	7.3	43.7				51.0	29.0
Change Period (Y+Rc), s	3.5	4.5				4.5	3.5
Max Green Setting (Gmax), s	14.5	30.5				48.5	23.5
Max Q Clear Time (g_c+I1), s	4.7	3.6				39.2	5.5
Green Ext Time (p_c), s	0.0	7.4				7.3	0.3

Intersection Summary		
HCM 6th Ctrl Delay	13.9	
HCM 6th LOS	B	

Notes

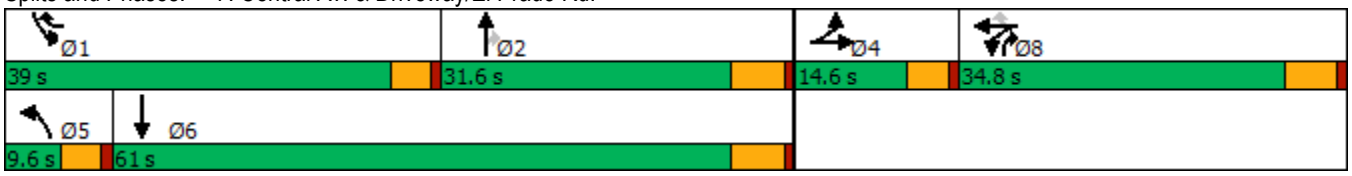
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

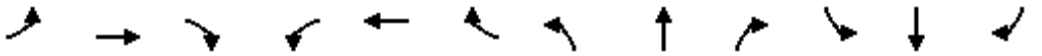
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	22	13	495	3	550	7	898	657	622	949
Future Volume (vph)	22	13	495	3	550	7	898	657	622	949
Turn Type	Split	NA	Split	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	4	4	8	8	1	5	2	8	1	6
Permitted Phases					8			2		
Detector Phase	4	4	8	8	1	5	2	8	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	34.8	34.8	9.6	9.6	27.8	34.8	9.6	24.8
Total Split (s)	14.6	14.6	34.8	34.8	39.0	9.6	31.6	34.8	39.0	61.0
Total Split (%)	12.2%	12.2%	29.0%	29.0%	32.5%	8.0%	26.3%	29.0%	32.5%	50.8%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	5.8	4.6	4.6	5.8	5.8	4.6	5.8
Lead/Lag					Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 107.9
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Central Av. & Driveway/El Prado Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	13	9	495	3	550	7	898	657	622	949	21
Future Volume (veh/h)	22	13	9	495	3	550	7	898	657	622	949	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	23	14	4	518	0	318	7	935	344	648	989	20
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	113	93	27	611	0	804	15	869	672	550	2894	58
Arrive On Green	0.07	0.07	0.07	0.18	0.00	0.18	0.01	0.24	0.24	0.32	0.55	0.55
Sat Flow, veh/h	1714	1421	406	3429	0	1607	1714	3610	1600	1714	5233	106
Grp Volume(v), veh/h	23	0	18	518	0	318	7	935	344	648	653	356
Grp Sat Flow(s),veh/h/ln	1714	0	1827	1714	0	1607	1714	1805	1600	1714	1729	1881
Q Serve(g_s), s	1.4	0.0	1.0	15.7	0.0	13.2	0.4	25.8	17.0	34.4	11.2	11.2
Cycle Q Clear(g_c), s	1.4	0.0	1.0	15.7	0.0	13.2	0.4	25.8	17.0	34.4	11.2	11.2
Prop In Lane	1.00		0.22	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	113	0	120	611	0	804	15	869	672	550	1912	1040
V/C Ratio(X)	0.20	0.00	0.15	0.85	0.00	0.40	0.47	1.08	0.51	1.18	0.34	0.34
Avail Cap(c_a), veh/h	160	0	170	928	0	952	80	869	672	550	1912	1040
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.4	0.0	47.2	42.6	0.0	16.7	52.9	40.7	23.0	36.4	13.2	13.2
Incr Delay (d2), s/veh	0.3	0.0	0.2	2.9	0.0	0.1	8.1	53.0	2.8	97.6	0.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.5	6.6	0.0	4.4	0.2	17.3	8.8	28.4	4.0	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.7	0.0	47.4	45.5	0.0	16.9	60.9	93.7	25.8	134.0	13.7	14.1
LnGrp LOS	D	A	D	D	A	B	E	F	C	F	B	B
Approach Vol, veh/h		41			836			1286			1657	
Approach Delay, s/veh		47.6			34.6			75.3			60.8	
Approach LOS		D			C			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	39.0	31.6		11.6	5.5	65.1		24.9				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		5.8				
Max Green Setting (Gmax), s	34.4	25.8		10.0	5.0	55.2		29.0				
Max Q Clear Time (g_c+I1), s	36.4	27.8		3.4	2.4	13.2		17.7				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	7.2		1.3				

Intersection Summary			
HCM 6th Ctrl Delay		59.8	
HCM 6th LOS		E	

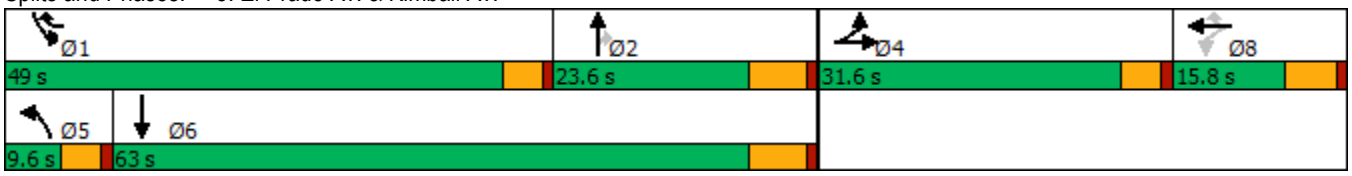
Notes

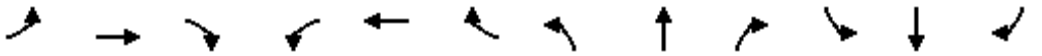
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	36	15	27	7	868	4	283	36	1016	358
Future Volume (vph)	36	15	27	7	868	4	283	36	1016	358
Turn Type	Split	NA	Perm	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	4	4		8	1	5	2		1	6
Permitted Phases			8		8			2		
Detector Phase	4	4	8	8	1	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	15.8	15.8	9.6	9.6	16.2	16.2	9.6	24.2
Total Split (s)	31.6	31.6	15.8	15.8	49.0	9.6	23.6	23.6	49.0	63.0
Total Split (%)	26.3%	26.3%	13.2%	13.2%	40.8%	8.0%	19.7%	19.7%	40.8%	52.5%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		5.8	4.6	4.6	6.2	6.2	4.6	6.2
Lead/Lag					Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 94.2
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: El Prado Av. & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	15	6	27	7	868	4	283	36	1016	358	12
Future Volume (veh/h)	36	15	6	27	7	868	4	283	36	1016	358	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	38	16	4	29	7	478	4	301	34	1081	381	12
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	136	117	29	146	35	866	9	327	277	753	2165	68
Arrive On Green	0.08	0.08	0.08	0.10	0.10	0.10	0.01	0.17	0.17	0.44	0.61	0.61
Sat Flow, veh/h	1714	1467	367	1471	355	1602	1714	1900	1610	1714	3569	112
Grp Volume(v), veh/h	38	0	20	36	0	478	4	301	34	1081	192	201
Grp Sat Flow(s),veh/h/ln	1714	0	1834	1826	0	1602	1714	1900	1610	1714	1805	1877
Q Serve(g_s), s	2.1	0.0	1.0	1.8	0.0	10.0	0.2	15.7	1.8	44.4	4.7	4.8
Cycle Q Clear(g_c), s	2.1	0.0	1.0	1.8	0.0	10.0	0.2	15.7	1.8	44.4	4.7	4.8
Prop In Lane	1.00		0.20	0.81		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	136	0	146	181	0	866	9	327	277	753	1095	1138
V/C Ratio(X)	0.28	0.00	0.14	0.20	0.00	0.55	0.44	0.92	0.12	1.43	0.18	0.18
Avail Cap(c_a), veh/h	458	0	490	181	0	866	85	327	277	753	1095	1138
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.8	0.0	43.3	41.8	0.0	15.3	50.1	41.1	35.4	28.3	8.8	8.8
Incr Delay (d2), s/veh	1.1	0.0	0.4	0.5	0.0	0.8	12.2	33.0	0.9	203.3	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.5	0.8	0.0	6.6	0.1	9.9	0.7	58.6	1.7	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.9	0.0	43.7	42.4	0.0	16.1	62.3	74.1	36.3	231.6	9.1	9.1
LnGrp LOS	D	A	D	D	A	B	E	E	D	F	A	A
Approach Vol, veh/h		58			514			339			1474	
Approach Delay, s/veh		44.5			17.9			70.2			172.3	
Approach LOS		D			B			E			F	

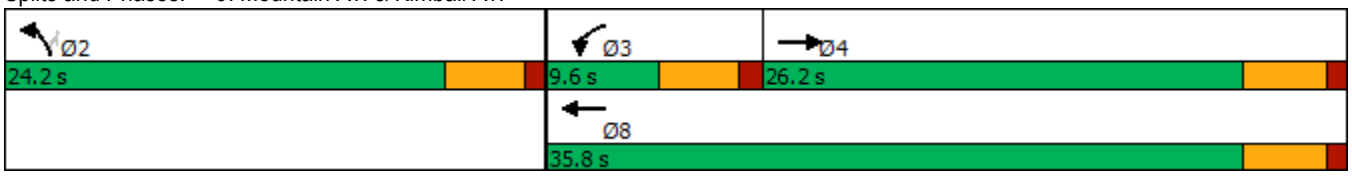
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	49.0	23.6		12.6	5.1	67.5		15.8				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		5.8				
Max Green Setting (Gmax), s	44.4	17.4		27.0	5.0	56.8		10.0				
Max Q Clear Time (g_c+I1), s	46.4	17.7		4.1	2.2	6.8		12.0				
Green Ext Time (p_c), s	0.0	0.0		0.2	0.0	2.1		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			121.4									
HCM 6th LOS			F									

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	1235	56	775	126	105
Future Volume (vph)	1235	56	775	126	105
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	4	3	8	2	
Permitted Phases					2
Detector Phase	4	3	8	2	2
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	24.7	9.6	14.7	23.6	23.6
Total Split (s)	26.2	9.6	35.8	24.2	24.2
Total Split (%)	43.7%	16.0%	59.7%	40.3%	40.3%
Yellow Time (s)	3.7	3.6	3.7	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.6	4.7	4.6	4.6
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	Max	None	Max	None	None

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 52.4
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 9: Mountain Av. & Kimball Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1235	79	56	775	126	105
Future Volume (veh/h)	1235	79	56	775	126	105
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1800	1900	1800	1900
Adj Flow Rate, veh/h	1328	83	60	833	135	94
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1634	102	97	2246	329	309
Arrive On Green	0.47	0.47	0.06	0.62	0.19	0.19
Sat Flow, veh/h	3546	215	1714	3705	1714	1610
Grp Volume(v), veh/h	693	718	60	833	135	94
Grp Sat Flow(s),veh/h/ln	1805	1861	1714	1805	1714	1610
Q Serve(g_s), s	16.4	16.5	1.7	5.7	3.5	2.5
Cycle Q Clear(g_c), s	16.4	16.5	1.7	5.7	3.5	2.5
Prop In Lane		0.12	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	855	882	97	2246	329	309
V/C Ratio(X)	0.81	0.81	0.62	0.37	0.41	0.30
Avail Cap(c_a), veh/h	855	882	171	2246	672	631
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.2	11.3	23.1	4.6	17.7	17.3
Incr Delay (d2), s/veh	8.2	8.2	2.4	0.5	0.8	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	6.4	0.7	1.1	1.2	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.5	19.4	25.4	5.1	18.5	17.9
LnGrp LOS	B	B	C	A	B	B
Approach Vol, veh/h	1411			893	229	
Approach Delay, s/veh	19.4			6.5	18.3	
Approach LOS	B			A	B	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		14.2	7.4	28.4		35.8
Change Period (Y+Rc), s		4.6	4.6	* 4.7		* 4.7
Max Green Setting (Gmax), s		19.6	5.0	* 22		* 31
Max Q Clear Time (g_c+I1), s		5.5	3.7	18.5		7.7
Green Ext Time (p_c), s		0.5	0.0	2.2		5.5

Intersection Summary	
HCM 6th Ctrl Delay	14.8
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	5.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	54	103	55	50	77	40
Future Vol, veh/h	54	103	55	50	77	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	64	123	65	60	92	48

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	327	95	0	0	125	0
Stage 1	95	-	-	-	-	-
Stage 2	232	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	671	967	-	-	1474	-
Stage 1	934	-	-	-	-	-
Stage 2	811	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	629	967	-	-	1474	-
Mov Cap-2 Maneuver	658	-	-	-	-	-
Stage 1	934	-	-	-	-	-
Stage 2	761	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.9	0	5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	658	967	1474	-
HCM Lane V/C Ratio	-	-	0.098	0.127	0.062	-
HCM Control Delay (s)	-	-	11.1	9.3	7.6	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0.4	0.2	-

Intersection	
Int Delay, s/veh	2.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	75	19	128	63	43	529
Future Vol, veh/h	75	19	128	63	43	529
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	87	22	149	73	50	615

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	901	186	0	0	222	0
Stage 1	186	-	-	-	-	-
Stage 2	715	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	311	861	-	-	1359	-
Stage 1	851	-	-	-	-	-
Stage 2	488	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	294	861	-	-	1359	-
Mov Cap-2 Maneuver	294	-	-	-	-	-
Stage 1	851	-	-	-	-	-
Stage 2	461	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.6	0	0.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	339	1359	-
HCM Lane V/C Ratio	-	-	0.322	0.037	-
HCM Control Delay (s)	-	-	20.6	7.8	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1.4	0.1	-

Intersection	
Intersection Delay, s/veh	637.8
Intersection LOS	F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	48	1233	1046	143	545	59
Future Vol, veh/h	48	1233	1046	143	545	59
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	52	1340	1137	155	592	64
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	797.4	698.4	180.1
HCM LOS	F	F	F

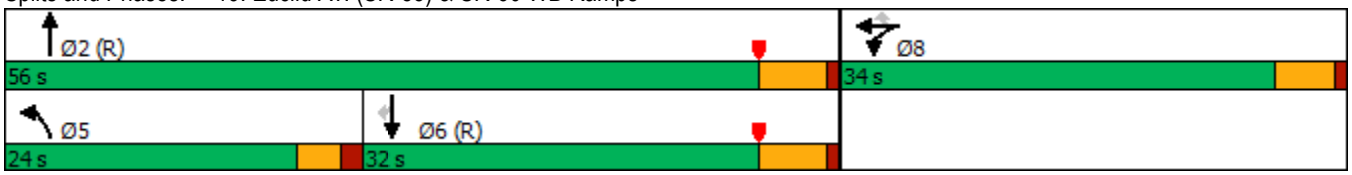
Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	0%	90%
Vol Thru, %	96%	88%	0%
Vol Right, %	0%	12%	10%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1281	1189	604
LT Vol	48	0	545
Through Vol	1233	1046	0
RT Vol	0	143	59
Lane Flow Rate	1392	1292	657
Geometry Grp	1	1	1
Degree of Util (X)	2.709	2.486	1.298
Departure Headway (Hd)	9.915	10.14	9.573
Convergence, Y/N	Yes	Yes	Yes
Cap	390	375	387
Service Time	7.915	8.14	7.573
HCM Lane V/C Ratio	3.569	3.445	1.698
HCM Control Delay	797.4	698.4	180.1
HCM Lane LOS	F	F	F
HCM 95th-tile Q	82.1	70.6	22.2

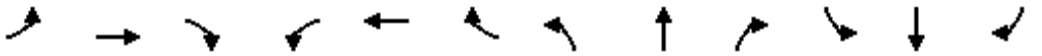
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	768	8	495	601	1329	1244	598
Future Volume (vph)	768	8	495	601	1329	1244	598
Turn Type	Split	NA	Perm	Prot	NA	NA	Perm
Protected Phases	8	8		5	2	6	
Permitted Phases			8				6
Detector Phase	8	8	8	5	2	6	6
Switch Phase							
Minimum Initial (s)	6.0	6.0	6.0	5.0	10.0	10.0	10.0
Minimum Split (s)	11.0	11.0	11.0	9.5	22.5	22.5	22.5
Total Split (s)	34.0	34.0	34.0	24.0	56.0	32.0	32.0
Total Split (%)	37.8%	37.8%	37.8%	26.7%	62.2%	35.6%	35.6%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.5	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.5	5.5	5.5	5.5
Lead/Lag				Lead		Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 63 (70%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 19: Euclid Av. (SR-83) & SR-60 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	768	8	495	601	1329	0	0	1244	598
Future Volume (veh/h)	0	0	0	768	8	495	601	1329	0	0	1244	598
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				907	0	226	626	1384	0	0	1296	418
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				1009	0	448	392	2183	0	0	1220	544
Arrive On Green				0.28	0.00	0.28	0.43	1.00	0.00	0.00	0.34	0.34
Sat Flow, veh/h				3619	0	1608	1810	3705	0	0	3705	1610
Grp Volume(v), veh/h				907	0	226	626	1384	0	0	1296	418
Grp Sat Flow(s),veh/h/ln				1810	0	1608	1810	1805	0	0	1805	1610
Q Serve(g_s), s				21.7	0.0	10.6	19.5	0.0	0.0	0.0	30.4	20.9
Cycle Q Clear(g_c), s				21.7	0.0	10.6	19.5	0.0	0.0	0.0	30.4	20.9
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1009	0	448	392	2183	0	0	1220	544
V/C Ratio(X)				0.90	0.00	0.50	1.60	0.63	0.00	0.00	1.06	0.77
Avail Cap(c_a), veh/h				1166	0	518	392	2183	0	0	1220	544
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.09	0.09	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				31.2	0.0	27.2	25.5	0.0	0.0	0.0	29.8	26.6
Incr Delay (d2), s/veh				8.0	0.0	0.3	269.6	0.1	0.0	0.0	44.0	10.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				9.9	0.0	3.8	34.8	0.0	0.0	0.0	19.6	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				39.3	0.0	27.6	295.1	0.1	0.0	0.0	73.8	36.6
LnGrp LOS				D	A	C	F	A	A	A	F	D
Approach Vol, veh/h					1133			2010			1714	
Approach Delay, s/veh					36.9			92.0			64.7	
Approach LOS					D			F			E	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	59.9		24.0	35.9		30.1						
Change Period (Y+Rc), s	5.5		4.5	5.5		5.0						
Max Green Setting (Gmax), s	50.5		19.5	26.5		29.0						
Max Q Clear Time (g_c+I1), s	2.0		21.5	32.4		23.7						
Green Ext Time (p_c), s	20.8		0.0	0.0		1.4						

Intersection Summary		
HCM 6th Ctrl Delay	69.5	
HCM 6th LOS	E	

Notes

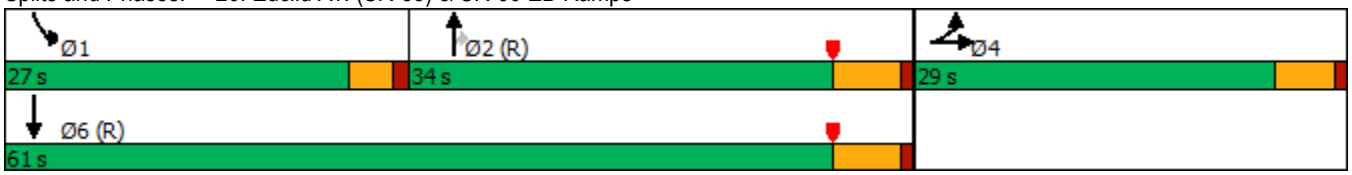
User approved volume balancing among the lanes for turning movement.

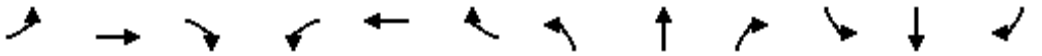
Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	505	4	1426	765	458	1555
Future Volume (vph)	505	4	1426	765	458	1555
Turn Type	Split	NA	NA	Perm	Prot	NA
Protected Phases	4	4	2		1	6
Permitted Phases				2		
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	6.0	6.0	10.0	10.0	5.0	10.0
Minimum Split (s)	11.0	11.0	22.5	22.5	9.0	22.5
Total Split (s)	29.0	29.0	34.0	34.0	27.0	61.0
Total Split (%)	32.2%	32.2%	37.8%	37.8%	30.0%	67.8%
Yellow Time (s)	4.0	4.0	4.5	4.5	3.0	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.5	5.5	4.0	5.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Min	C-Min	None	C-Min

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 20: Euclid Av. (SR-83) & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	505	4	535	0	0	0	0	1426	765	458	1555	0
Future Volume (veh/h)	505	4	535	0	0	0	0	1426	765	458	1555	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	499	27	479				0	1455	587	467	1587	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	483	23	410				0	1143	498	462	2226	0
Arrive On Green	0.27	0.27	0.27				0.00	0.32	0.32	0.51	1.00	0.00
Sat Flow, veh/h	1810	87	1537				0	3705	1571	1810	3705	0
Grp Volume(v), veh/h	499	0	506				0	1455	587	467	1587	0
Grp Sat Flow(s),veh/h/ln	1810	0	1623				0	1805	1571	1810	1805	0
Q Serve(g_s), s	24.0	0.0	24.0				0.0	28.5	28.5	23.0	0.0	0.0
Cycle Q Clear(g_c), s	24.0	0.0	24.0				0.0	28.5	28.5	23.0	0.0	0.0
Prop In Lane	1.00		0.95				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	483	0	433				0	1143	498	462	2226	0
V/C Ratio(X)	1.03	0.00	1.17				0.00	1.27	1.18	1.01	0.71	0.00
Avail Cap(c_a), veh/h	483	0	433				0	1143	498	462	2226	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.09	0.09	0.09	0.09	0.00
Uniform Delay (d), s/veh	33.0	0.0	33.0				0.0	30.7	30.7	22.0	0.0	0.0
Incr Delay (d2), s/veh	50.0	0.0	98.2				0.0	123.4	83.0	15.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.4	0.0	20.5				0.0	31.1	21.5	7.5	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.0	0.0	131.2				0.0	154.2	113.8	37.0	0.2	0.0
LnGrp LOS	F	A	F				A	F	F	F	A	A
Approach Vol, veh/h		1005						2042			2054	
Approach Delay, s/veh		107.3						142.5			8.6	
Approach LOS		F						F			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	27.0	34.0		29.0		61.0
Change Period (Y+Rc), s	4.0	5.5		5.0		5.5
Max Green Setting (Gmax), s	23.0	28.5		24.0		55.5
Max Q Clear Time (g_c+I1), s	25.0	30.5		26.0		2.0
Green Ext Time (p_c), s	0.0	0.0		0.0		27.0

Intersection Summary	
HCM 6th Ctrl Delay	81.7
HCM 6th LOS	F

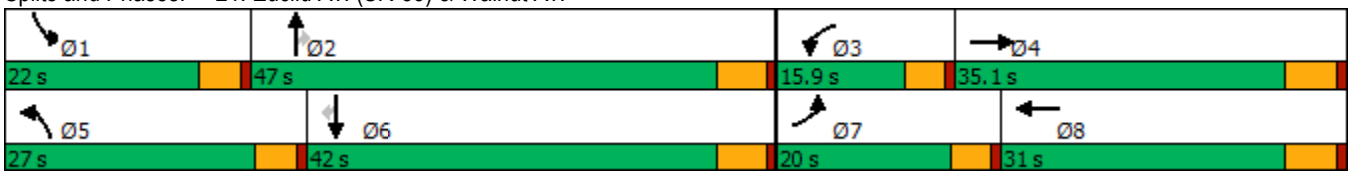
Notes

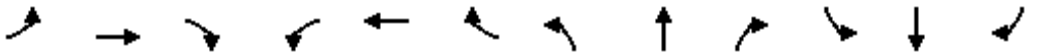
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	179	449	85	449	238	1862	90	320	1537	265
Future Volume (vph)	179	449	85	449	238	1862	90	320	1537	265
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.8	9.6	29.8	9.6	27.4	27.4	9.6	29.4	29.4
Total Split (s)	20.0	35.1	15.9	31.0	27.0	47.0	47.0	22.0	42.0	42.0
Total Split (%)	16.7%	29.3%	13.3%	25.8%	22.5%	39.2%	39.2%	18.3%	35.0%	35.0%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 116.6
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 21: Euclid Av. (SR-83) & Walnut Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	449	177	85	449	170	238	1862	90	320	1537	265
Future Volume (veh/h)	179	449	177	85	449	170	238	1862	90	320	1537	265
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1700	1900	1900
Adj Flow Rate, veh/h	190	478	165	90	478	155	253	1981	69	340	1635	228
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	217	695	238	112	543	175	280	1894	587	395	1698	527
Arrive On Green	0.13	0.26	0.26	0.07	0.20	0.20	0.16	0.37	0.37	0.13	0.33	0.33
Sat Flow, veh/h	1714	2628	900	1714	2669	859	1714	5187	1608	3141	5187	1609
Grp Volume(v), veh/h	190	327	316	90	322	311	253	1981	69	340	1635	228
Grp Sat Flow(s),veh/h/ln	1714	1805	1723	1714	1805	1723	1714	1729	1608	1570	1729	1609
Q Serve(g_s), s	12.4	18.6	18.8	5.9	19.7	20.0	16.5	41.6	3.2	12.1	35.3	12.7
Cycle Q Clear(g_c), s	12.4	18.6	18.8	5.9	19.7	20.0	16.5	41.6	3.2	12.1	35.3	12.7
Prop In Lane	1.00		0.52	1.00		0.50	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	217	477	456	112	368	351	280	1894	587	395	1698	527
V/C Ratio(X)	0.88	0.69	0.69	0.80	0.88	0.89	0.90	1.05	0.12	0.86	0.96	0.43
Avail Cap(c_a), veh/h	232	477	456	170	399	381	337	1894	587	480	1698	527
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.9	37.6	37.7	52.5	44.0	44.1	46.7	36.2	24.0	48.8	37.6	30.0
Incr Delay (d2), s/veh	26.7	4.1	4.5	8.0	18.2	20.4	21.5	33.8	0.4	11.1	14.6	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	8.4	8.2	2.7	10.3	10.2	8.5	22.6	1.3	5.2	16.6	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.6	41.7	42.2	60.4	62.2	64.4	68.3	70.0	24.4	59.9	52.3	32.6
LnGrp LOS	E	D	D	E	E	E	E	F	C	E	D	C
Approach Vol, veh/h		833			723			2303			2203	
Approach Delay, s/veh		49.6			62.9			68.4			51.4	
Approach LOS		D			E			E			D	

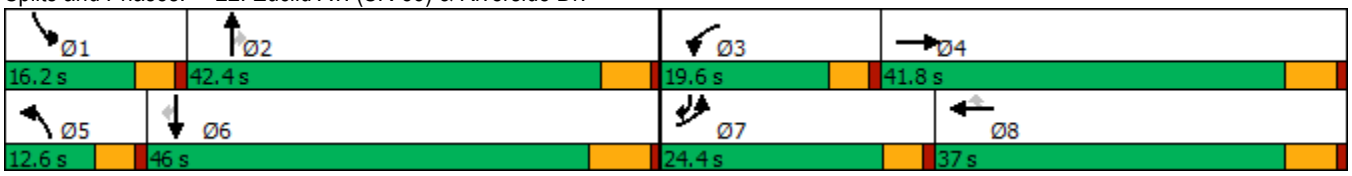
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.9	47.0	12.1	35.9	23.2	42.7	19.0	29.0
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	17.4	41.6	11.3	29.3	22.4	36.6	15.4	25.2
Max Q Clear Time (g_c+I1), s	14.1	43.6	7.9	20.8	18.5	37.3	14.4	22.0
Green Ext Time (p_c), s	0.2	0.0	0.0	2.4	0.1	0.0	0.0	1.1

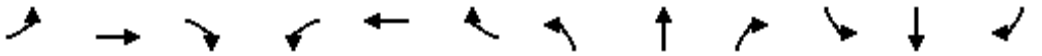
Intersection Summary	
HCM 6th Ctrl Delay	59.0
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	234	721	228	499	78	196	1644	293	169	1315	345
Future Volume (vph)	234	721	228	499	78	196	1644	293	169	1315	345
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4	3	8		5	2		1	6	7
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	25.8	9.6	31.8	31.8	9.6	30.4	30.4	9.6	34.5	9.6
Total Split (s)	24.4	41.8	19.6	37.0	37.0	12.6	42.4	42.4	16.2	46.0	24.4
Total Split (%)	20.3%	34.8%	16.3%	30.8%	30.8%	10.5%	35.3%	35.3%	13.5%	38.3%	20.3%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Euclid Av. (SR-83) & Riverside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	721	197	228	499	78	196	1644	293	169	1315	345
Future Volume (veh/h)	234	721	197	228	499	78	196	1644	293	169	1315	345
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	244	751	180	238	520	65	204	1712	251	176	1370	268
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	269	440	106	212	955	425	113	1103	492	164	1210	785
Arrive On Green	0.16	0.30	0.30	0.12	0.26	0.26	0.07	0.31	0.31	0.10	0.34	0.34
Sat Flow, veh/h	1714	1481	355	1714	3610	1608	1714	3610	1610	1714	3610	1590
Grp Volume(v), veh/h	244	0	931	238	520	65	204	1712	251	176	1370	268
Grp Sat Flow(s),veh/h/ln	1714	0	1836	1714	1805	1608	1714	1805	1610	1714	1805	1590
Q Serve(g_s), s	16.9	0.0	36.0	15.0	15.0	3.8	8.0	37.0	15.5	11.6	40.6	12.5
Cycle Q Clear(g_c), s	16.9	0.0	36.0	15.0	15.0	3.8	8.0	37.0	15.5	11.6	40.6	12.5
Prop In Lane	1.00		0.19	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	269	0	546	212	955	425	113	1103	492	164	1210	785
V/C Ratio(X)	0.91	0.00	1.71	1.12	0.54	0.15	1.80	1.55	0.51	1.07	1.13	0.34
Avail Cap(c_a), veh/h	280	0	546	212	955	425	113	1103	492	164	1210	785
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.2	0.0	42.6	53.1	38.3	34.1	56.5	42.1	34.6	54.8	40.3	18.8
Incr Delay (d2), s/veh	29.5	0.0	325.3	98.0	0.6	0.2	393.4	253.0	3.7	90.6	70.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	0.0	64.9	12.1	6.5	1.5	15.7	54.1	6.4	9.1	29.1	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.7	0.0	367.9	151.1	38.9	34.3	449.9	295.0	38.3	145.4	110.4	20.0
LnGrp LOS	E	A	F	F	D	C	F	F	D	F	F	B
Approach Vol, veh/h		1175			823			2167			1814	
Approach Delay, s/veh		308.0			71.0			279.9			100.5	
Approach LOS		F			E			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.2	43.5	19.6	41.8	12.6	47.1	23.6	37.8
Change Period (Y+Rc), s	4.6	* 6.5	4.6	5.8	4.6	6.5	4.6	5.8
Max Green Setting (Gmax), s	11.6	* 37	15.0	36.0	8.0	39.5	19.8	31.2
Max Q Clear Time (g_c+I1), s	13.6	39.0	17.0	38.0	10.0	42.6	18.9	17.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8

Intersection Summary	
HCM 6th Ctrl Delay	202.2
HCM 6th LOS	F

Notes

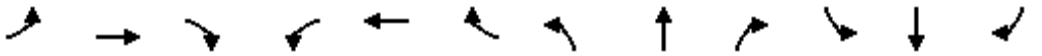
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	134	487	69	136	223	68	1937	276	35	1490	87
Future Volume (vph)	134	487	69	136	223	68	1937	276	35	1490	87
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	28.8	28.8	28.8	33.8	33.8	9.6	24.2	24.2	9.6	31.5	31.5
Total Split (s)	44.0	44.0	44.0	44.0	44.0	12.4	65.0	65.0	11.0	63.6	63.6
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	10.3%	54.2%	54.2%	9.2%	53.0%	53.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	3.6	4.2	4.2	3.6	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8		5.8	4.6	5.2	5.2	4.6	6.5	6.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 117.8
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: Euclid Av. (SR-83) & Chino Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	487	69	136	223	18	68	1937	276	35	1490	87
Future Volume (veh/h)	134	487	69	136	223	18	68	1937	276	35	1490	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	144	524	51	146	240	15	73	2083	226	38	1602	61
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	274	612	519	72	78	4	92	1824	797	52	1739	759
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.05	0.51	0.51	0.03	0.48	0.48
Sat Flow, veh/h	1082	1900	1610	95	241	13	1714	3610	1577	1714	3610	1577
Grp Volume(v), veh/h	144	524	51	401	0	0	73	2083	226	38	1602	61
Grp Sat Flow(s),veh/h/ln	1082	1900	1610	348	0	0	1714	1805	1577	1714	1805	1577
Q Serve(g_s), s	0.0	30.6	2.6	7.6	0.0	0.0	5.0	59.9	9.8	2.6	49.0	2.5
Cycle Q Clear(g_c), s	22.4	30.6	2.6	38.2	0.0	0.0	5.0	59.9	9.8	2.6	49.0	2.5
Prop In Lane	1.00		1.00	0.36		0.04	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	274	612	519	154	0	0	92	1824	797	52	1739	759
V/C Ratio(X)	0.53	0.86	0.10	2.61	0.00	0.00	0.79	1.14	0.28	0.74	0.92	0.08
Avail Cap(c_a), veh/h	274	612	519	154	0	0	113	1824	797	93	1739	759
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.8	37.6	28.1	50.3	0.0	0.0	55.5	29.3	16.9	57.0	28.6	16.6
Incr Delay (d2), s/veh	1.9	11.5	0.1	743.1	0.0	0.0	21.4	71.1	0.9	7.4	9.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	15.5	1.0	36.2	0.0	0.0	2.6	40.7	3.4	1.2	21.1	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.7	49.1	28.2	793.3	0.0	0.0	76.9	100.5	17.8	64.4	38.2	16.8
LnGrp LOS	D	D	C	F	A	A	E	F	B	E	D	B
Approach Vol, veh/h		719			401			2382			1701	
Approach Delay, s/veh		45.1			793.3			91.9			38.0	
Approach LOS		D			F			F			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.2	66.4		44.0	11.0	63.6		44.0				
Change Period (Y+Rc), s	4.6	* 6.5		5.8	4.6	6.5		5.8				
Max Green Setting (Gmax), s	6.4	* 60		38.2	7.8	57.1		38.2				
Max Q Clear Time (g_c+I1), s	4.6	61.9		32.6	7.0	51.0		40.2				
Green Ext Time (p_c), s	0.0	0.0		1.9	0.0	4.5		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		121.9	
HCM 6th LOS		F	

Notes

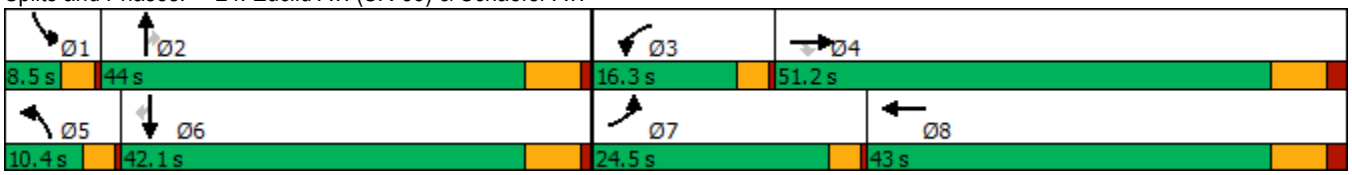
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

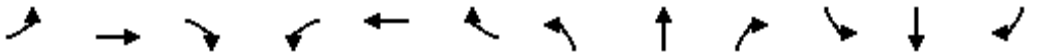
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	487	463	264	95	158	239	1864	100	199	1522	455
Future Volume (vph)	487	463	264	95	158	239	1864	100	199	1522	455
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.5	42.0	42.0	13.5	43.0	8.5	33.0	33.0	8.5	28.0	28.0
Total Split (s)	24.5	51.2	51.2	16.3	43.0	10.4	44.0	44.0	8.5	42.1	42.1
Total Split (%)	20.4%	42.7%	42.7%	13.6%	35.8%	8.7%	36.7%	36.7%	7.1%	35.1%	35.1%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	7.0	7.0	3.5	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 105.9
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Euclid Av. (SR-83) & Schaefer Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	487	463	264	95	158	73	239	1864	100	199	1522	455
Future Volume (veh/h)	487	463	264	95	158	73	239	1864	100	199	1522	455
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	492	468	226	96	160	69	241	1883	83	201	1537	430
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	358	533	451	159	206	89	118	1365	609	85	1297	579
Arrive On Green	0.21	0.28	0.28	0.09	0.16	0.16	0.07	0.38	0.38	0.05	0.36	0.36
Sat Flow, veh/h	1714	1900	1610	1714	1259	543	1714	3610	1610	1714	3610	1610
Grp Volume(v), veh/h	492	468	226	96	0	229	241	1883	83	201	1537	430
Grp Sat Flow(s),veh/h/ln	1714	1900	1610	1714	0	1802	1714	1805	1610	1714	1805	1610
Q Serve(g_s), s	21.0	23.6	11.8	5.4	0.0	12.2	6.9	38.0	3.4	5.0	36.1	23.5
Cycle Q Clear(g_c), s	21.0	23.6	11.8	5.4	0.0	12.2	6.9	38.0	3.4	5.0	36.1	23.5
Prop In Lane	1.00		1.00	1.00		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	358	533	451	159	0	296	118	1365	609	85	1297	579
V/C Ratio(X)	1.37	0.88	0.50	0.60	0.00	0.77	2.05	1.38	0.14	2.36	1.18	0.74
Avail Cap(c_a), veh/h	358	836	708	218	0	646	118	1365	609	85	1297	579
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.7	34.5	30.3	43.8	0.0	40.2	46.8	31.2	20.5	47.7	32.2	28.1
Incr Delay (d2), s/veh	184.7	5.8	0.6	1.4	0.0	3.3	499.4	175.3	0.1	644.9	91.3	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	26.8	11.1	4.4	2.3	0.0	5.5	19.1	47.9	1.2	17.3	30.5	9.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	224.5	40.3	30.9	45.2	0.0	43.5	546.2	206.5	20.6	692.7	123.5	33.3
LnGrp LOS	F	D	C	D	A	D	F	F	C	F	F	C
Approach Vol, veh/h		1186			325			2207			2168	
Approach Delay, s/veh		114.9			44.0			236.6			158.4	
Approach LOS		F			D			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	44.0	12.8	35.2	10.4	42.1	24.5	23.5
Change Period (Y+Rc), s	3.5	6.0	3.5	7.0	3.5	6.0	3.5	7.0
Max Green Setting (Gmax), s	5.0	38.0	12.8	44.2	6.9	36.1	21.0	36.0
Max Q Clear Time (g_c+I1), s	7.0	40.0	7.4	25.6	8.9	38.1	23.0	14.2
Green Ext Time (p_c), s	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.9

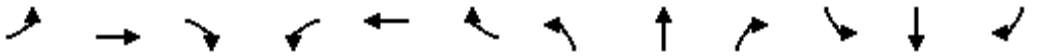
Intersection Summary	
HCM 6th Ctrl Delay	172.7
HCM 6th LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	334	1195	376	426	723	221	1714	277	201	1589	220
Future Volume (vph)	334	1195	376	426	723	221	1714	277	201	1589	220
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	46.0	46.0	46.0	49.0	49.0	8.5	29.0	29.0	8.5	40.0	40.0
Total Split (s)	52.0	52.0	52.0	52.0	52.0	17.0	54.8	54.8	13.2	51.0	51.0
Total Split (%)	43.3%	43.3%	43.3%	43.3%	43.3%	14.2%	45.7%	45.7%	11.0%	42.5%	42.5%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 25: Euclid Av. (SR-83) & Edison Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	334	1195	376	426	723	340	221	1714	277	201	1589	220
Future Volume (veh/h)	334	1195	376	426	723	340	221	1714	277	201	1589	220
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	352	1258	314	448	761	352	233	1804	284	212	1673	200
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	60	712	604	60	459	212	193	1468	653	139	1354	604
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.11	0.41	0.41	0.08	0.38	0.38
Sat Flow, veh/h	487	1900	1610	314	1224	566	1714	3610	1606	1714	3610	1610
Grp Volume(v), veh/h	352	1258	314	448	0	1113	233	1804	284	212	1673	200
Grp Sat Flow(s),veh/h/ln	487	1900	1610	314	0	1790	1714	1805	1606	1714	1805	1610
Q Serve(g_s), s	0.0	45.0	18.2	0.0	0.0	45.0	13.5	48.8	15.3	9.7	45.0	10.6
Cycle Q Clear(g_c), s	45.0	45.0	18.2	45.0	0.0	45.0	13.5	48.8	15.3	9.7	45.0	10.6
Prop In Lane	1.00		1.00	1.00		0.32	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	713	604	60	0	671	193	1468	653	139	1354	604
V/C Ratio(X)	5.87	1.77	0.52	7.47	0.00	1.66	1.21	1.23	0.43	1.53	1.24	0.33
Avail Cap(c_a), veh/h	60	713	604	60	0	671	193	1468	653	139	1354	604
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.0	37.5	29.1	60.0	0.0	37.5	53.2	35.6	25.7	55.2	37.5	26.8
Incr Delay (d2), s/veh	2225.6	350.3	0.8	2944.2	0.0	302.9	132.1	109.2	0.5	271.4	112.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	38.9	89.0	6.9	50.9	0.0	75.0	12.6	41.8	5.5	14.5	39.4	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	2285.6	387.8	29.9	3004.2	0.0	340.4	185.3	144.8	26.1	326.6	150.2	27.1
LnGrp LOS	F	F	C	F	A	F	F	F	C	F	F	C
Approach Vol, veh/h		1924			1561			2321			2085	
Approach Delay, s/veh		676.6			1104.9			134.3			156.3	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.2	54.8		52.0	17.0	51.0		52.0				
Change Period (Y+Rc), s	3.5	6.0		7.0	3.5	6.0		7.0				
Max Green Setting (Gmax), s	9.7	48.8		45.0	13.5	45.0		45.0				
Max Q Clear Time (g_c+I1), s	11.7	50.8		47.0	15.5	47.0		47.0				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.0		0.0				

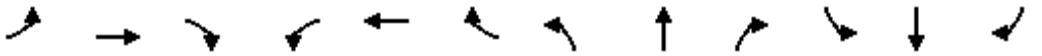
Intersection Summary		
HCM 6th Ctrl Delay		464.3
HCM 6th LOS		F

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	47	202	264	413	157	144	1709	383	260	1770	78
Future Volume (vph)	47	202	264	413	157	144	1709	383	260	1770	78
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	46.8	46.8	46.8	46.8	46.8	8.5	30.7	30.7	8.5	37.7	37.7
Total Split (s)	46.8	46.8	46.8	46.8	46.8	14.0	63.2	63.2	10.0	59.2	59.2
Total Split (%)	39.0%	39.0%	39.0%	39.0%	39.0%	11.7%	52.7%	52.7%	8.3%	49.3%	49.3%
Yellow Time (s)	4.3	4.3	4.3	4.3	4.3	3.0	4.7	4.7	3.0	4.7	4.7
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.8	4.8	3.5	5.7	5.7	3.5	5.7	5.7
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 26: Euclid Av. (SR-83) & Eucalyptus Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	202	264	413	157	237	144	1709	383	260	1770	78
Future Volume (veh/h)	47	202	264	413	157	237	144	1709	383	260	1770	78
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	53	227	181	464	176	263	162	1920	429	292	1989	76
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	176	665	564	306	241	360	150	1730	772	93	1609	703
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.09	0.48	0.48	0.05	0.45	0.45
Sat Flow, veh/h	914	1900	1610	941	688	1027	1714	3610	1610	1714	3610	1577
Grp Volume(v), veh/h	53	227	181	464	0	439	162	1920	429	292	1989	76
Grp Sat Flow(s),veh/h/ln	914	1900	1610	941	0	1715	1714	1805	1610	1714	1805	1577
Q Serve(g_s), s	6.5	10.6	9.9	31.4	0.0	26.8	10.5	57.5	22.7	6.5	53.5	3.4
Cycle Q Clear(g_c), s	33.3	10.6	9.9	42.0	0.0	26.8	10.5	57.5	22.7	6.5	53.5	3.4
Prop In Lane	1.00		1.00	1.00		0.60	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	176	665	564	306	0	600	150	1730	772	93	1609	703
V/C Ratio(X)	0.30	0.34	0.32	1.51	0.00	0.73	1.08	1.11	0.56	3.14	1.24	0.11
Avail Cap(c_a), veh/h	176	665	564	306	0	600	150	1730	772	93	1609	703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.6	28.8	28.6	47.4	0.0	34.1	54.8	31.3	22.2	56.8	33.3	19.4
Incr Delay (d2), s/veh	0.7	0.2	0.2	247.9	0.0	4.3	96.5	58.4	0.9	992.7	111.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	4.8	3.7	30.2	0.0	11.4	8.4	36.2	8.0	28.3	46.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.3	29.0	28.8	295.2	0.0	38.4	151.2	89.6	23.1	1049.5	144.9	19.4
LnGrp LOS	D	C	C	F	A	D	F	F	C	F	F	B
Approach Vol, veh/h		461			903			2511			2357	
Approach Delay, s/veh		31.3			170.4			82.2			252.9	
Approach LOS		C			F			F			F	

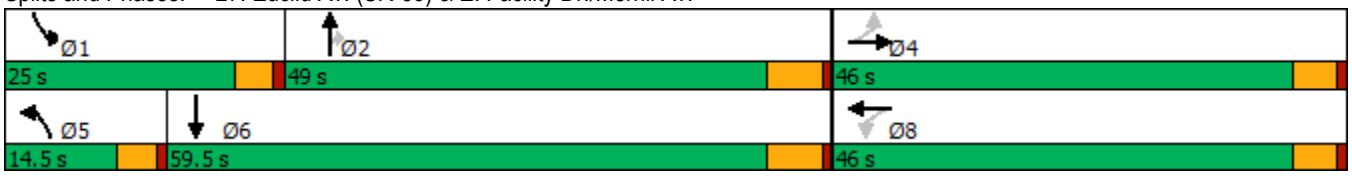
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.0	63.2		46.8	14.0	59.2		46.8				
Change Period (Y+Rc), s	3.5	5.7		4.8	3.5	5.7		4.8				
Max Green Setting (Gmax), s	6.5	57.5		42.0	10.5	53.5		42.0				
Max Q Clear Time (g_c+I1), s	8.5	59.5		35.3	12.5	55.5		44.0				
Green Ext Time (p_c), s	0.0	0.0		1.0	0.0	0.0		0.0				

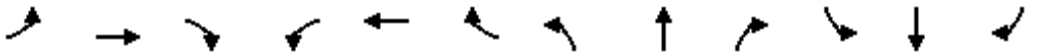
Intersection Summary			
HCM 6th Ctrl Delay		155.8	
HCM 6th LOS		F	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	14	37	631	3	5	1509	797	392	1621
Future Volume (vph)	14	37	631	3	5	1509	797	392	1621
Turn Type	Perm	NA	Perm	NA	Prot	NA	Perm	Prot	NA
Protected Phases		4		8	5	2		1	6
Permitted Phases	4		8				2		
Detector Phase	4	4	8	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	15.0	15.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	10.0	10.0	46.0	46.0	14.5	28.0	28.0	14.5	28.0
Total Split (s)	46.0	46.0	46.0	46.0	14.5	49.0	49.0	25.0	59.5
Total Split (%)	38.3%	38.3%	38.3%	38.3%	12.1%	40.8%	40.8%	20.8%	49.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.5	5.0	5.0	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	4.5	6.0	6.0	4.5	6.0
Lead/Lag					Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 27: Euclid Av. (SR-83) & E. Facility Dr./Merrill Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	37	15	631	3	421	5	1509	797	392	1621	1
Future Volume (veh/h)	14	37	15	631	3	421	5	1509	797	392	1621	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	15	41	15	693	3	453	5	1658	811	431	1781	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	135	359	123	354	1	200	22	1294	577	293	1864	0
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.01	0.36	0.36	0.17	0.52	0.00
Sat Flow, veh/h	289	1050	359	896	4	586	1714	3610	1610	1714	3705	0
Grp Volume(v), veh/h	71	0	0	1149	0	0	5	1658	811	431	1781	0
Grp Sat Flow(s),veh/h/ln	1698	0	0	1486	0	0	1714	1805	1610	1714	1805	0
Q Serve(g_s), s	0.0	0.0	0.0	37.8	0.0	0.0	0.3	43.0	43.0	20.5	56.5	0.0
Cycle Q Clear(g_c), s	3.2	0.0	0.0	41.0	0.0	0.0	0.3	43.0	43.0	20.5	56.5	0.0
Prop In Lane	0.21		0.21	0.60		0.39	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	616	0	0	556	0	0	22	1294	577	293	1864	0
V/C Ratio(X)	0.12	0.00	0.00	2.07	0.00	0.00	0.23	1.28	1.41	1.47	0.96	0.00
Avail Cap(c_a), veh/h	616	0	0	556	0	0	143	1294	577	293	1864	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.1	0.0	0.0	40.9	0.0	0.0	58.6	38.5	38.5	49.8	27.7	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	486.3	0.0	0.0	1.9	132.8	192.8	230.0	12.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.0	91.2	0.0	0.0	0.2	41.4	46.5	27.0	24.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.1	0.0	0.0	527.3	0.0	0.0	60.6	171.3	231.3	279.7	39.7	0.0
LnGrp LOS	C	A	A	F	A	A	E	F	F	F	D	A
Approach Vol, veh/h		71			1149			2474			2212	
Approach Delay, s/veh		27.1			527.3			190.7			86.5	
Approach LOS		C			F			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	25.0	49.0		46.0	6.0	68.0		46.0				
Change Period (Y+Rc), s	4.5	6.0		5.0	4.5	6.0		5.0				
Max Green Setting (Gmax), s	20.5	43.0		41.0	10.0	53.5		41.0				
Max Q Clear Time (g_c+I1), s	22.5	45.0		5.2	2.3	58.5		43.0				
Green Ext Time (p_c), s	0.0	0.0		0.3	0.0	0.0		0.0				

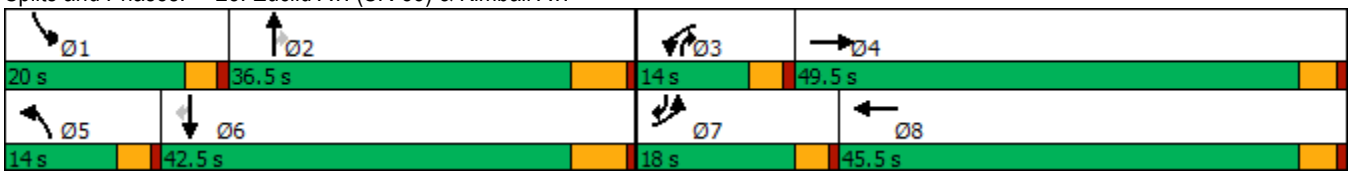
Intersection Summary												
HCM 6th Ctrl Delay			215.2									
HCM 6th LOS			F									

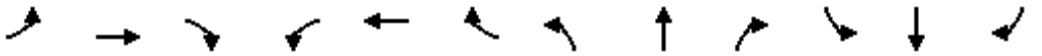
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	591	975	87	435	147	1260	113	541	1391	419
Future Volume (vph)	591	975	87	435	147	1260	113	541	1391	419
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	3	8	5	2	3	1	6	7
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	7
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	14.0	49.5	14.0	45.5	14.0	36.0	14.0	9.0	33.0	14.0
Total Split (s)	18.0	49.5	14.0	45.5	14.0	36.5	14.0	20.0	42.5	18.0
Total Split (%)	15.0%	41.3%	11.7%	37.9%	11.7%	30.4%	11.7%	16.7%	35.4%	15.0%
Yellow Time (s)	3.0	3.5	3.0	3.5	3.0	5.0	3.0	3.0	5.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.5	4.0	4.5	4.0	6.0	4.0	4.0	6.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	None	Min	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 118.9
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 28: Euclid Av. (SR-83) & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	591	975	206	87	435	293	147	1260	113	541	1391	419
Future Volume (veh/h)	591	975	206	87	435	293	147	1260	113	541	1391	419
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1900	1900	1800	1900	1900	1800	1900	1900	1700	1900	1900
Adj Flow Rate, veh/h	609	1005	209	90	448	264	152	1299	101	558	1434	334
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	374	1091	226	138	719	421	146	936	547	427	1121	691
Arrive On Green	0.12	0.37	0.37	0.08	0.33	0.33	0.09	0.26	0.26	0.14	0.31	0.31
Sat Flow, veh/h	3141	2976	617	1714	2192	1282	1714	3610	1610	3141	3610	1609
Grp Volume(v), veh/h	609	609	605	90	368	344	152	1299	101	558	1434	334
Grp Sat Flow(s),veh/h/ln	1570	1805	1788	1714	1805	1669	1714	1805	1610	1570	1805	1609
Q Serve(g_s), s	14.0	37.9	38.1	6.0	20.3	20.5	10.0	30.5	5.2	16.0	36.5	17.6
Cycle Q Clear(g_c), s	14.0	37.9	38.1	6.0	20.3	20.5	10.0	30.5	5.2	16.0	36.5	17.6
Prop In Lane	1.00		0.35	1.00		0.77	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	374	662	656	138	592	548	146	936	547	427	1121	691
V/C Ratio(X)	1.63	0.92	0.92	0.65	0.62	0.63	1.04	1.39	0.18	1.31	1.28	0.48
Avail Cap(c_a), veh/h	374	691	684	146	629	582	146	936	547	427	1121	691
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.8	35.6	35.6	52.5	33.3	33.4	53.8	43.5	27.3	50.8	40.5	24.2
Incr Delay (d2), s/veh	294.8	17.2	17.8	6.9	1.2	1.4	86.3	180.9	0.2	153.6	132.8	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.7	18.9	18.9	2.8	8.7	8.2	7.6	36.3	2.0	15.1	35.7	6.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	346.6	52.8	53.5	59.4	34.5	34.8	140.1	224.4	27.5	204.4	173.4	24.7
LnGrp LOS	F	D	D	E	C	C	F	F	C	F	F	C
Approach Vol, veh/h		1823			802			1552			2326	
Approach Delay, s/veh		151.2			37.4			203.4			159.5	
Approach LOS		F			D			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	36.5	13.5	47.6	14.0	42.5	18.0	43.1
Change Period (Y+Rc), s	4.0	6.0	4.0	4.5	4.0	6.0	4.0	4.5
Max Green Setting (Gmax), s	16.0	30.5	10.0	45.0	10.0	36.5	14.0	41.0
Max Q Clear Time (g_c+I1), s	18.0	32.5	8.0	40.1	12.0	38.5	16.0	22.5
Green Ext Time (p_c), s	0.0	0.0	0.0	3.0	0.0	0.0	0.0	2.5

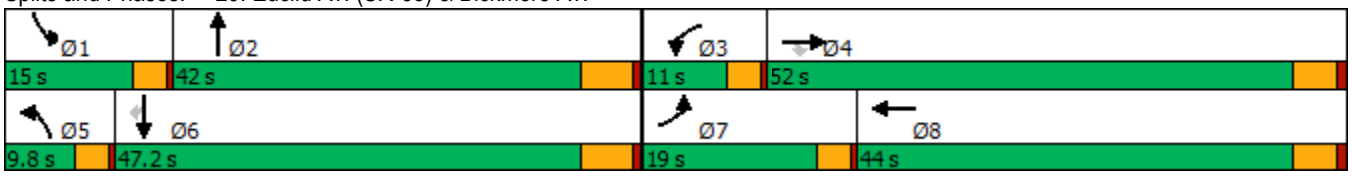
Intersection Summary	
HCM 6th Ctrl Delay	152.6
HCM 6th LOS	F

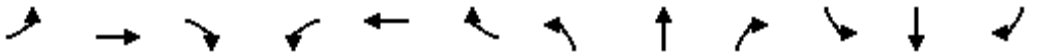
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	101	132	138	70	33	55	1385	187	1468	153
Future Volume (vph)	101	132	138	70	33	55	1385	187	1468	153
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.5	44.0	44.0	8.5	44.0	8.5	26.5	8.5	30.5	30.5
Total Split (s)	19.0	52.0	52.0	11.0	44.0	9.8	42.0	15.0	47.2	47.2
Total Split (%)	15.8%	43.3%	43.3%	9.2%	36.7%	8.2%	35.0%	12.5%	39.3%	39.3%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	3.0	4.5	3.0	4.5	4.5
All-Red Time (s)	0.5	1.0	1.0	0.5	1.0	0.5	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.5	3.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 89.6
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 29: Euclid Av. (SR-83) & Bickmore Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	101	132	138	70	33	166	55	1385	126	187	1468	153
Future Volume (veh/h)	101	132	138	70	33	166	55	1385	126	187	1468	153
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	110	143	135	76	36	152	60	1505	114	203	1596	134
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	139	316	268	96	45	190	77	1474	111	234	1895	845
Arrive On Green	0.08	0.17	0.17	0.06	0.14	0.14	0.04	0.43	0.43	0.14	0.52	0.52
Sat Flow, veh/h	1714	1900	1610	1714	318	1341	1714	3403	256	1714	3610	1610
Grp Volume(v), veh/h	110	143	135	76	0	188	60	794	825	203	1596	134
Grp Sat Flow(s),veh/h/ln	1714	1900	1610	1714	0	1659	1714	1805	1854	1714	1805	1610
Q Serve(g_s), s	5.3	5.7	6.4	3.7	0.0	9.2	2.9	36.5	36.5	9.8	31.7	3.6
Cycle Q Clear(g_c), s	5.3	5.7	6.4	3.7	0.0	9.2	2.9	36.5	36.5	9.8	31.7	3.6
Prop In Lane	1.00		1.00	1.00		0.81	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	139	316	268	96	0	235	77	782	803	234	1895	845
V/C Ratio(X)	0.79	0.45	0.50	0.79	0.00	0.80	0.78	1.02	1.03	0.87	0.84	0.16
Avail Cap(c_a), veh/h	315	1060	898	153	0	768	128	782	803	234	1895	845
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.0	31.7	32.0	39.3	0.0	35.0	39.8	23.9	23.9	35.6	17.0	10.4
Incr Delay (d2), s/veh	3.8	0.4	0.5	5.3	0.0	2.4	6.3	36.2	38.7	26.4	3.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	2.5	2.4	1.6	0.0	3.7	1.3	20.6	21.8	5.4	11.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.9	32.0	32.5	44.6	0.0	37.4	46.2	60.0	62.6	62.0	20.5	10.4
LnGrp LOS	D	C	C	D	A	D	D	F	F	E	C	B
Approach Vol, veh/h		388			264			1679			1933	
Approach Delay, s/veh		35.0			39.5			60.8			24.1	
Approach LOS		C			D			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	42.0	8.2	19.0	7.3	49.7	10.3	16.9
Change Period (Y+Rc), s	3.5	5.5	3.5	5.0	3.5	5.5	3.5	5.0
Max Green Setting (Gmax), s	11.5	36.5	7.5	47.0	6.3	41.7	15.5	39.0
Max Q Clear Time (g_c+I1), s	11.8	38.5	5.7	8.4	4.9	33.7	7.3	11.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.7	0.0	4.5	0.1	0.7

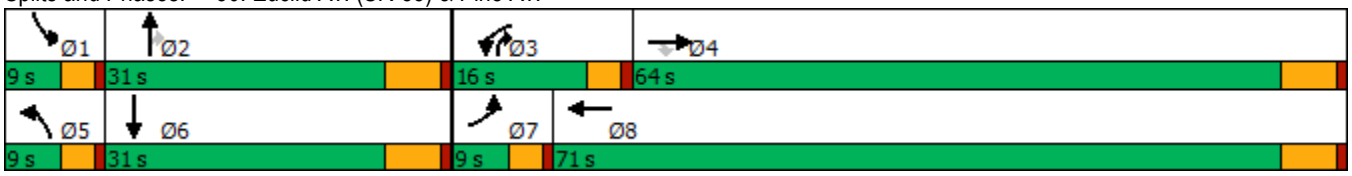
Intersection Summary	
HCM 6th Ctrl Delay	40.5
HCM 6th LOS	D

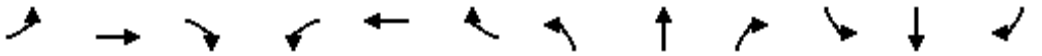
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	115	892	224	712	604	278	1073	1431	391	1203
Future Volume (vph)	115	892	224	712	604	278	1073	1431	391	1203
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4		3	8	5	2	3	1	6
Permitted Phases			4					2		
Detector Phase	7	4	4	3	8	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.0	43.0	43.0	9.0	45.0	9.0	11.0	9.0	9.0	29.0
Total Split (s)	9.0	64.0	64.0	16.0	71.0	9.0	31.0	16.0	9.0	31.0
Total Split (%)	7.5%	53.3%	53.3%	13.3%	59.2%	7.5%	25.8%	13.3%	7.5%	25.8%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0	3.0	3.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	4.0	6.0	4.0	4.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 30: Euclid Av. (SR-83) & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	892	224	712	604	247	278	1073	1431	391	1203	122
Future Volume (veh/h)	115	892	224	712	604	247	278	1073	1431	391	1203	122
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	117	910	0	727	616	250	284	1095	1043	399	1228	124
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	71	918		333	696	282	71	752	496	71	690	69
Arrive On Green	0.04	0.48	0.00	0.10	0.54	0.54	0.04	0.21	0.21	0.04	0.21	0.21
Sat Flow, veh/h	1714	1900	1610	3326	1285	521	1714	3610	1610	1714	3311	334
Grp Volume(v), veh/h	117	910	0	727	0	866	284	1095	1043	399	668	684
Grp Sat Flow(s),veh/h/ln	1714	1900	1610	1663	0	1806	1714	1805	1610	1714	1805	1840
Q Serve(g_s), s	5.0	57.0	0.0	12.0	0.0	50.7	5.0	25.0	25.0	5.0	25.0	25.0
Cycle Q Clear(g_c), s	5.0	57.0	0.0	12.0	0.0	50.7	5.0	25.0	25.0	5.0	25.0	25.0
Prop In Lane	1.00		1.00	1.00		0.29	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	71	918		333	0	978	71	752	496	71	376	383
V/C Ratio(X)	1.64	0.99		2.19	0.00	0.89	3.98	1.46	2.10	5.59	1.78	1.78
Avail Cap(c_a), veh/h	71	918		333	0	978	71	752	496	71	376	383
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.5	30.7	0.0	54.0	0.0	24.2	57.5	47.5	41.5	57.5	47.5	47.5
Incr Delay (d2), s/veh	341.5	27.4	0.0	543.5	0.0	10.0	1372.1	212.6	502.2	2093.9	359.9	363.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	30.9	0.0	29.9	0.0	21.8	29.3	32.8	83.1	43.6	48.2	49.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	399.0	58.1	0.0	597.5	0.0	34.2	1429.6	260.1	543.7	2151.4	407.4	411.0
LnGrp LOS	F	E		F	A	C	F	F	F	F	F	F
Approach Vol, veh/h		1027	A		1593			2422			1751	
Approach Delay, s/veh		97.0			291.3			519.3			806.2	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	31.0	16.0	64.0	9.0	31.0	9.0	71.0
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	5.0	25.0	12.0	58.0	5.0	25.0	5.0	65.0
Max Q Clear Time (g_c+I1), s	7.0	27.0	14.0	59.0	7.0	27.0	7.0	52.7
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2

Intersection Summary	
HCM 6th Ctrl Delay	475.9
HCM 6th LOS	F

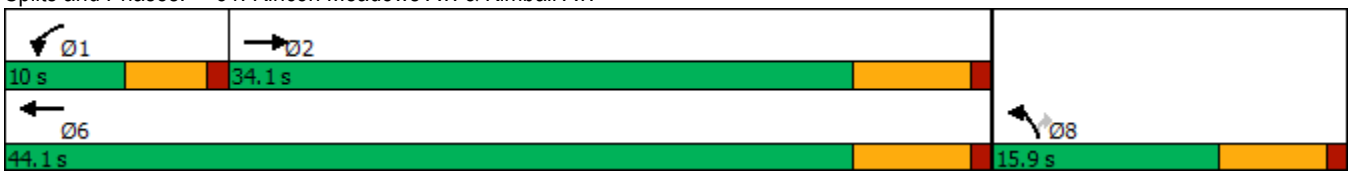
Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	1155	171	630	79	131
Future Volume (vph)	1155	171	630	79	131
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	2	1	6	8	
Permitted Phases					8
Detector Phase	2	1	6	8	8
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	26.2	9.6	16.2	15.8	15.8
Total Split (s)	34.1	10.0	44.1	15.9	15.9
Total Split (%)	56.8%	16.7%	73.5%	26.5%	26.5%
Yellow Time (s)	5.2	3.6	5.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	6.2	5.8	5.8
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	None	None	None	Max	Max

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 58.9
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 31: Rincon Meadows Av. & Kimball Av.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1155	179	171	630	79	131
Future Volume (veh/h)	1155	179	171	630	79	131
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1800	1900	1800	1900
Adj Flow Rate, veh/h	1203	178	178	656	82	126
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1405	207	160	1174	299	281
Arrive On Green	0.45	0.45	0.09	0.62	0.17	0.17
Sat Flow, veh/h	3251	465	1714	1900	1714	1610
Grp Volume(v), veh/h	686	695	178	656	82	126
Grp Sat Flow(s),veh/h/ln	1805	1816	1714	1900	1714	1610
Q Serve(g_s), s	19.7	19.9	5.4	11.7	2.4	4.1
Cycle Q Clear(g_c), s	19.7	19.9	5.4	11.7	2.4	4.1
Prop In Lane		0.26	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	804	809	160	1174	299	281
V/C Ratio(X)	0.85	0.86	1.11	0.56	0.27	0.45
Avail Cap(c_a), veh/h	870	876	160	1245	299	281
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.4	14.4	26.2	6.4	20.7	21.4
Incr Delay (d2), s/veh	7.8	8.2	104.5	0.5	2.3	5.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	7.6	6.5	2.5	1.0	1.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.1	22.6	130.8	6.9	23.0	26.5
LnGrp LOS	C	C	F	A	C	C
Approach Vol, veh/h	1381			834	208	
Approach Delay, s/veh	22.4			33.4	25.1	
Approach LOS	C			C	C	

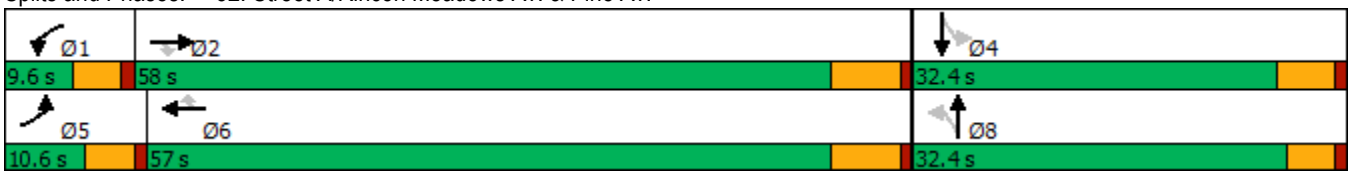
Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	10.0	32.0				42.0	15.9
Change Period (Y+Rc), s	4.6	6.2				6.2	5.8
Max Green Setting (Gmax), s	5.4	27.9				37.9	10.1
Max Q Clear Time (g_c+I1), s	7.4	21.9				13.7	6.1
Green Ext Time (p_c), s	0.0	3.9				4.0	0.2

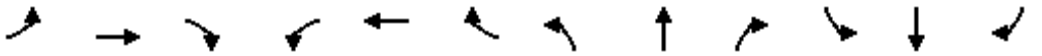
Intersection Summary			
HCM 6th Ctrl Delay		26.4	
HCM 6th LOS		C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	256	2072	39	16	1146	264	24	3	336	6
Future Volume (vph)	256	2072	39	16	1146	264	24	3	336	6
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	NA
Protected Phases	5	2		1	6			8		4
Permitted Phases			2			6	8		4	
Detector Phase	5	2	2	1	6	6	8	8	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.2	28.2	9.6	28.2	28.2	31.6	31.6	32.4	32.4
Total Split (s)	10.6	58.0	58.0	9.6	57.0	57.0	32.4	32.4	32.4	32.4
Total Split (%)	10.6%	58.0%	58.0%	9.6%	57.0%	57.0%	32.4%	32.4%	32.4%	32.4%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	5.2	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	6.2	4.6	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	Max	None	None	None	None	None	None	None

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 94.2
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 32: Street A/Rincon Meadows Av. & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	256	2072	39	16	1146	264	24	3	10	336	6	194
Future Volume (veh/h)	256	2072	39	16	1146	264	24	3	10	336	6	194
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	278	2252	42	17	1246	287	26	3	11	365	7	211
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	106	1931	861	32	1776	792	261	99	365	442	14	437
Arrive On Green	0.06	0.53	0.53	0.02	0.49	0.49	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	1714	3610	1610	1714	3610	1610	1119	357	1308	1347	52	1566
Grp Volume(v), veh/h	278	2252	42	17	1246	287	26	0	14	365	0	218
Grp Sat Flow(s),veh/h/ln	1714	1805	1610	1714	1805	1610	1119	0	1665	1347	0	1618
Q Serve(g_s), s	6.0	51.8	1.2	1.0	25.9	10.7	1.9	0.0	0.6	26.2	0.0	10.9
Cycle Q Clear(g_c), s	6.0	51.8	1.2	1.0	25.9	10.7	12.8	0.0	0.6	26.8	0.0	10.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.79	1.00		0.97
Lane Grp Cap(c), veh/h	106	1931	861	32	1776	792	261	0	464	442	0	451
V/C Ratio(X)	2.62	1.17	0.05	0.52	0.70	0.36	0.10	0.00	0.03	0.83	0.00	0.48
Avail Cap(c_a), veh/h	106	1931	861	89	1894	845	270	0	478	442	0	451
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.4	22.5	10.8	47.1	19.1	15.2	34.4	0.0	25.4	35.1	0.0	29.1
Incr Delay (d2), s/veh	754.2	80.8	0.1	4.8	1.1	0.3	0.2	0.0	0.0	12.2	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	24.7	39.8	0.4	0.4	9.6	3.5	0.5	0.0	0.2	9.7	0.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	799.6	103.3	10.9	51.8	20.2	15.5	34.6	0.0	25.4	47.3	0.0	29.9
LnGrp LOS	F	F	B	D	C	B	C	A	C	D	A	C
Approach Vol, veh/h		2572			1550			40			583	
Approach Delay, s/veh		177.1			19.7			31.4			40.8	
Approach LOS		F			B			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.4	58.0		32.4	10.6	53.8		32.4				
Change Period (Y+Rc), s	4.6	6.2		5.4	4.6	6.2		* 5.4				
Max Green Setting (Gmax), s	5.0	51.8		27.0	6.0	50.8		* 28				
Max Q Clear Time (g_c+I1), s	3.0	53.8		28.8	8.0	27.9		14.8				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	9.9		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		107.7
HCM 6th LOS		F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	1140	64	699	102	106
Future Volume (vph)	1140	64	699	102	106
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	2	1	6	8	
Permitted Phases					8
Detector Phase	2	1	6	8	8
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	23.2	9.6	16.2	15.4	15.4
Total Split (s)	33.4	11.0	44.4	15.6	15.6
Total Split (%)	55.7%	18.3%	74.0%	26.0%	26.0%
Yellow Time (s)	5.2	3.6	5.2	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	6.2	5.4	5.4
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	None	None	None	Max	Max

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 52.6
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 33: Mill Creek Av. & Kimball Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1140	146	64	699	102	106
Future Volume (veh/h)	1140	146	64	699	102	106
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1800	1900	1800	1900
Adj Flow Rate, veh/h	1175	143	66	721	105	96
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1441	175	100	1121	329	309
Arrive On Green	0.44	0.44	0.06	0.59	0.19	0.19
Sat Flow, veh/h	3336	393	1714	1900	1714	1610
Grp Volume(v), veh/h	653	665	66	721	105	96
Grp Sat Flow(s),veh/h/ln	1805	1829	1714	1900	1714	1610
Q Serve(g_s), s	16.7	16.9	2.0	13.3	2.8	2.7
Cycle Q Clear(g_c), s	16.7	16.9	2.0	13.3	2.8	2.7
Prop In Lane		0.22	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	803	813	100	1121	329	309
V/C Ratio(X)	0.81	0.82	0.66	0.64	0.32	0.31
Avail Cap(c_a), veh/h	924	936	206	1366	329	309
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.8	12.9	24.5	7.2	18.5	18.4
Incr Delay (d2), s/veh	5.0	5.1	2.7	0.7	2.5	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	5.8	0.8	2.9	1.2	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.8	18.0	27.2	8.0	21.0	21.1
LnGrp LOS	B	B	C	A	C	C
Approach Vol, veh/h	1318			787	201	
Approach Delay, s/veh	17.9			9.6	21.0	
Approach LOS	B			A	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	7.7	29.8				37.5	15.6
Change Period (Y+Rc), s	4.6	6.2				6.2	5.4
Max Green Setting (Gmax), s	6.4	27.2				38.2	10.2
Max Q Clear Time (g_c+I1), s	4.0	18.9				15.3	4.8
Green Ext Time (p_c), s	0.0	4.8				4.5	0.3

Intersection Summary	
HCM 6th Ctrl Delay	15.3
HCM 6th LOS	B

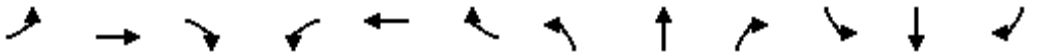
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	43	2323	52	46	1100	37	144	30	36	15
Future Volume (vph)	43	2323	52	46	1100	37	144	30	36	15
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	NA
Protected Phases	7	4		3	8			2		6
Permitted Phases			4			8	2		6	
Detector Phase	7	4	4	3	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	16.2	9.6	23.2	23.2	15.8	15.8	15.2	15.2
Total Split (s)	14.0	87.0	87.0	12.0	85.0	85.0	21.0	21.0	21.0	21.0
Total Split (%)	11.7%	72.5%	72.5%	10.0%	70.8%	70.8%	17.5%	17.5%	17.5%	17.5%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	5.2	4.8	4.8	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	6.2	5.8	5.8	5.2	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 117.4
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 34: Chino Corona Rd. & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	2323	52	46	1100	37	144	30	84	36	15	182
Future Volume (veh/h)	43	2323	52	46	1100	37	144	30	84	36	15	182
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	47	2553	0	51	1209	33	158	33	83	40	16	186
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	60	2479		65	1311	1111	75	64	162	147	17	202
Arrive On Green	0.03	0.69	0.00	0.04	0.69	0.69	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	1714	3610	1610	1714	1900	1610	1136	479	1204	1228	129	1501
Grp Volume(v), veh/h	47	2553	0	51	1209	33	158	0	116	40	0	202
Grp Sat Flow(s),veh/h/ln	1714	1805	1610	1714	1900	1610	1136	0	1683	1228	0	1630
Q Serve(g_s), s	3.2	80.8	0.0	3.5	63.8	0.8	1.4	0.0	7.5	3.7	0.0	14.4
Cycle Q Clear(g_c), s	3.2	80.8	0.0	3.5	63.8	0.8	15.8	0.0	7.5	11.2	0.0	14.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.72	1.00		0.92
Lane Grp Cap(c), veh/h	60	2479		65	1311	1111	75	0	226	147	0	219
V/C Ratio(X)	0.79	1.03		0.79	0.92	0.03	2.12	0.00	0.51	0.27	0.00	0.92
Avail Cap(c_a), veh/h	137	2479		108	1311	1111	75	0	226	147	0	219
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	56.3	18.4	0.0	56.1	15.6	5.8	58.7	0.0	47.3	52.6	0.0	50.3
Incr Delay (d2), s/veh	8.3	26.2	0.0	7.7	12.1	0.0	544.7	0.0	2.0	1.0	0.0	40.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	34.6	0.0	1.6	25.5	0.2	13.5	0.0	3.2	1.2	0.0	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.7	44.6	0.0	63.8	27.7	5.8	603.4	0.0	49.3	53.5	0.0	90.4
LnGrp LOS	E	F		E	C	A	F	A	D	D	A	F
Approach Vol, veh/h		2600	A		1293			274			242	
Approach Delay, s/veh		45.0			28.5			368.8			84.3	
Approach LOS		D			C			F			F	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		21.6	9.0	87.0		21.6	8.7	87.4				
Change Period (Y+Rc), s		5.8	4.6	6.2		* 5.8	4.6	6.2				
Max Green Setting (Gmax), s		15.2	7.4	80.8		* 16	9.4	78.8				
Max Q Clear Time (g_c+I1), s		17.8	5.5	82.8		16.4	5.2	65.8				
Green Ext Time (p_c), s		0.0	0.0	0.0		0.0	0.0	7.6				

Intersection Summary		
HCM 6th Ctrl Delay		62.4
HCM 6th LOS		E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	10	0	16	0	10	10	47	10	0
Future Vol, veh/h	0	0	0	10	0	16	0	10	10	47	10	0
Peak Hour Factor	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	19	0	30	0	19	19	87	19	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

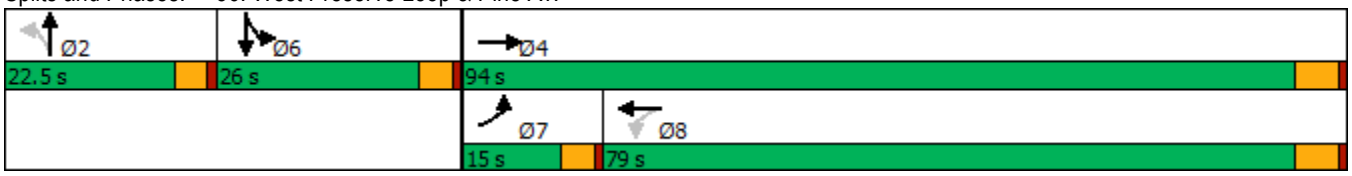
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	0	7.1	7	7.8
HCM LOS	-	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	38%	82%
Vol Thru, %	50%	100%	0%	18%
Vol Right, %	50%	0%	62%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	20	0	26	57
LT Vol	0	0	10	47
Through Vol	10	0	0	10
RT Vol	10	0	16	0
Lane Flow Rate	37	0	48	106
Geometry Grp	1	1	1	1
Degree of Util (X)	0.039	0	0.052	0.123
Departure Headway (Hd)	3.764	4.185	3.853	4.178
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	946	0	919	858
Service Time	1.807	2.261	1.92	2.201
HCM Lane V/C Ratio	0.039	0	0.052	0.124
HCM Control Delay	7	7.3	7.1	7.8
HCM Lane LOS	A	N	A	A
HCM 95th-tile Q	0.1	0	0.2	0.4

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	95	2247	25	981	93	4	173	5
Future Volume (vph)	95	2247	25	981	93	4	173	5
Turn Type	Prot	NA	Perm	NA	Perm	NA	Split	NA
Protected Phases	7	4		8		2	6	6
Permitted Phases			8		2			
Detector Phase	7	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	22.5	22.5	14.7	14.7
Total Split (s)	15.0	94.0	79.0	79.0	22.5	22.5	26.0	26.0
Total Split (%)	10.5%	66.0%	55.4%	55.4%	15.8%	15.8%	18.2%	18.2%
Yellow Time (s)	3.6	4.8	4.8	4.8	3.5	3.5	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	4.5	4.5	4.7	4.7
Lead/Lag	Lead		Lag	Lag				
Lead-Lag Optimize?	Yes		Yes	Yes				
Recall Mode	None	None	None	None	Min	Min	Min	Min

Intersection Summary
Cycle Length: 142.5
Actuated Cycle Length: 139.8
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 36: West Preserve Loop & Pine Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	2247	101	25	981	126	93	4	19	173	5	109
Future Volume (veh/h)	95	2247	101	25	981	126	93	4	19	173	5	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	99	2341	110	27	1022	126	101	4	21	180	5	110
Peak Hour Factor	0.96	0.96	0.92	0.92	0.96	0.96	0.92	0.92	0.92	0.96	0.92	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	121	2415	113	63	1880	232	131	19	100	211	9	191
Arrive On Green	0.07	0.69	0.69	0.58	0.58	0.58	0.07	0.07	0.07	0.12	0.12	0.12
Sat Flow, veh/h	1714	3512	164	140	3235	399	1810	264	1386	1714	70	1550
Grp Volume(v), veh/h	99	1194	1257	27	570	578	101	0	25	180	0	115
Grp Sat Flow(s),veh/h/ln	1714	1805	1871	140	1805	1828	1810	0	1650	1714	0	1621
Q Serve(g_s), s	7.3	78.2	82.0	6.1	24.8	24.8	7.0	0.0	1.8	13.2	0.0	8.6
Cycle Q Clear(g_c), s	7.3	78.2	82.0	74.5	24.8	24.8	7.0	0.0	1.8	13.2	0.0	8.6
Prop In Lane	1.00		0.09	1.00		0.22	1.00		0.84	1.00		0.96
Lane Grp Cap(c), veh/h	121	1241	1286	63	1049	1063	131	0	119	211	0	200
V/C Ratio(X)	0.82	0.96	0.98	0.43	0.54	0.54	0.77	0.00	0.21	0.85	0.00	0.58
Avail Cap(c_a), veh/h	139	1242	1287	63	1049	1063	254	0	232	285	0	269
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.7	18.5	19.1	63.3	16.4	16.4	58.4	0.0	56.0	55.0	0.0	53.0
Incr Delay (d2), s/veh	27.5	17.3	19.8	6.5	0.7	0.7	9.3	0.0	0.9	16.7	0.0	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	31.9	35.2	1.0	9.5	9.6	3.6	0.0	0.8	6.6	0.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.2	35.8	38.9	69.8	17.2	17.2	67.7	0.0	56.9	71.7	0.0	55.6
LnGrp LOS	F	D	D	E	B	B	E	A	E	E	A	E
Approach Vol, veh/h		2550			1175			126			295	
Approach Delay, s/veh		39.2			18.4			65.6			65.4	
Approach LOS		D			B			E			E	

Timer - Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		13.7		93.9		20.5	13.6	80.3				
Change Period (Y+Rc), s		4.5		5.8		4.7	4.6	5.8				
Max Green Setting (Gmax), s		18.0		88.2		21.3	10.4	73.2				
Max Q Clear Time (g_c+I1), s		9.0		84.0		15.2	9.3	76.5				
Green Ext Time (p_c), s		0.2		4.1		0.6	0.0	0.0				

Intersection Summary												
HCM 6th Ctrl Delay			36.0									
HCM 6th LOS			D									

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	923	227	621	142	130
Future Volume (vph)	923	227	621	142	130
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	2	1	6	8	
Permitted Phases					8
Detector Phase	2	1	6	8	8
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	32.2	9.6	16.2	14.6	14.6
Total Split (s)	33.3	12.1	45.4	14.6	14.6
Total Split (%)	55.5%	20.2%	75.7%	24.3%	24.3%
Yellow Time (s)	5.2	3.6	5.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	6.2	4.6	4.6
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	None	None	None	Max	Max

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 57.9
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 37: Main St. & Kimball Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	923	323	227	621	142	130
Future Volume (veh/h)	923	323	227	621	142	130
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1800	1900	1800	1900
Adj Flow Rate, veh/h	942	324	232	634	145	109
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1122	384	225	1210	299	281
Arrive On Green	0.43	0.43	0.13	0.64	0.17	0.17
Sat Flow, veh/h	2734	903	1714	1900	1714	1610
Grp Volume(v), veh/h	643	623	232	634	145	109
Grp Sat Flow(s),veh/h/ln	1805	1736	1714	1900	1714	1610
Q Serve(g_s), s	18.2	18.4	7.5	10.4	4.4	3.4
Cycle Q Clear(g_c), s	18.2	18.4	7.5	10.4	4.4	3.4
Prop In Lane		0.52	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	768	739	225	1210	299	281
V/C Ratio(X)	0.84	0.84	1.03	0.52	0.48	0.39
Avail Cap(c_a), veh/h	854	822	225	1301	299	281
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.7	14.7	24.9	5.7	21.3	20.9
Incr Delay (d2), s/veh	6.8	7.4	69.0	0.4	5.5	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	6.7	6.9	2.0	2.1	1.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.4	22.1	93.9	6.0	26.8	24.9
LnGrp LOS	C	C	F	A	C	C
Approach Vol, veh/h	1266			866	254	
Approach Delay, s/veh	21.8			29.6	26.0	
Approach LOS	C			C	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	12.1	30.6				42.7	14.6
Change Period (Y+Rc), s	4.6	6.2				6.2	4.6
Max Green Setting (Gmax), s	7.5	27.1				39.2	10.0
Max Q Clear Time (g_c+I1), s	9.5	20.4				12.4	6.4
Green Ext Time (p_c), s	0.0	3.9				3.9	0.3

Intersection Summary			
HCM 6th Ctrl Delay		25.0	
HCM 6th LOS		C	

Intersection	
Int Delay, s/veh	19.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	279	732	42	67	614	221	10	14	23	193	17	225
Future Vol, veh/h	279	732	42	67	614	221	10	14	23	193	17	225
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	310	-	-	120	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	288	755	43	69	633	228	10	14	24	199	18	232

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	861	0	0	798	0	0	2363	2352	399	1846	2259	747
Stage 1	-	-	-	-	-	-	1353	1353	-	885	885	-
Stage 2	-	-	-	-	-	-	1010	999	-	961	1374	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.5	6.9	7.3	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	789	-	-	833	-	-	22	36	606	~ 52	42	416
Stage 1	-	-	-	-	-	-	161	220	-	342	366	-
Stage 2	-	-	-	-	-	-	292	324	-	279	215	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	789	-	-	833	-	-	~ 5	21	606	-	24	416
Mov Cap-2 Maneuver	-	-	-	-	-	-	195	~ 7	-	~ 55	57	-
Stage 1	-	-	-	-	-	-	102	140	-	217	336	-
Stage 2	-	-	-	-	-	-	112	297	-	~ 153	137	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.2	0.7	$ 924.3	
HCM LOS			F	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	22	789	-	-	833	-	-	-
HCM Lane V/C Ratio	2.202	0.365	-	-	0.083	-	-	-
HCM Control Delay (s)	$ 924.3	12.2	-	-	9.7	-	-	-
HCM Lane LOS	F	B	-	-	A	-	-	-
HCM 95th %tile Q(veh)	6.2	1.7	-	-	0.3	-	-	-

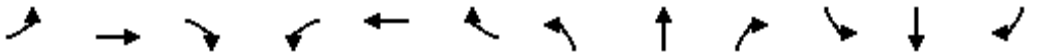
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	166	1833	441	438	960	121	188	160	68	211	51
Future Volume (vph)	166	1833	441	438	960	121	188	160	68	211	51
Turn Type	Perm	NA	Perm	Prot	NA	Split	NA	Perm	Perm	NA	Perm
Protected Phases		4		3	8	2	2			6	
Permitted Phases	4		4					2	6		6
Detector Phase	4	4	4	3	8	2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	35.8	35.8	35.8	9.6	15.8	10.1	10.1	10.1	22.5	22.5	22.5
Total Split (s)	94.0	94.0	94.0	13.0	107.0	13.0	13.0	13.0	22.5	22.5	22.5
Total Split (%)	66.0%	66.0%	66.0%	9.1%	75.1%	9.1%	9.1%	9.1%	15.8%	15.8%	15.8%
Yellow Time (s)	4.8	4.8	4.8	3.6	4.8	4.1	4.1	4.1	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	4.6	5.8	5.1	5.1	5.1	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes							
Recall Mode	None	None	None	None	None	Max	Max	Max	Min	Min	Min

Intersection Summary
Cycle Length: 142.5
Actuated Cycle Length: 141.7
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 39: East Preserve Loop & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	166	1833	441	438	960	165	121	188	160	68	211	51
Future Volume (veh/h)	166	1833	441	438	960	165	121	188	160	68	211	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1800	1900	1900	1700	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	180	1909	459	456	1000	179	126	204	158	74	229	55
Peak Hour Factor	0.92	0.96	0.96	0.96	0.96	0.92	0.96	0.92	0.96	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	323	2208	985	103	2156	385	177	107	91	233	245	207
Arrive On Green	0.61	0.61	0.61	0.06	0.70	0.70	0.06	0.06	0.06	0.13	0.13	0.13
Sat Flow, veh/h	483	3610	1610	1714	3060	547	3141	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	180	1909	459	456	589	590	126	204	158	74	229	55
Grp Sat Flow(s),veh/h/ln	483	1805	1610	1714	1805	1802	1570	1900	1610	1810	1900	1610
Q Serve(g_s), s	36.5	60.9	21.7	8.4	20.0	20.1	5.5	7.9	7.9	5.2	16.7	4.3
Cycle Q Clear(g_c), s	43.6	60.9	21.7	8.4	20.0	20.1	5.5	7.9	7.9	5.2	16.7	4.3
Prop In Lane	1.00		1.00	1.00		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	323	2208	985	103	1272	1270	177	107	91	233	245	207
V/C Ratio(X)	0.56	0.86	0.47	4.43	0.46	0.46	0.71	1.90	1.74	0.32	0.94	0.27
Avail Cap(c_a), veh/h	332	2277	1015	103	1306	1304	177	107	91	233	245	207
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.5	22.4	14.7	65.7	9.1	9.1	64.9	66.0	66.0	55.3	60.4	55.0
Incr Delay (d2), s/veh	2.6	3.8	0.5	1565.2	0.4	0.4	21.4	438.1	373.2	0.8	40.5	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	24.1	7.4	48.3	6.9	6.9	2.7	16.9	12.6	2.4	10.8	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.0	26.2	15.2	1630.9	9.4	9.4	86.2	504.1	439.2	56.1	100.8	55.6
LnGrp LOS	C	C	B	F	A	A	F	F	F	E	F	E
Approach Vol, veh/h		2548			1635			488			358	
Approach Delay, s/veh		24.0			461.7			375.2			84.6	
Approach LOS		C			F			F			F	

Timer - Assigned Phs		2	3	4		6		8				
Phs Duration (G+Y+Rc), s		13.0	13.0	91.4		22.5		104.4				
Change Period (Y+Rc), s		5.1	4.6	5.8		4.5		5.8				
Max Green Setting (Gmax), s		7.9	8.4	88.2		18.0		101.2				
Max Q Clear Time (g_c+I1), s		9.9	10.4	62.9		18.7		22.1				
Green Ext Time (p_c), s		0.0	0.0	22.6		0.0		15.1				

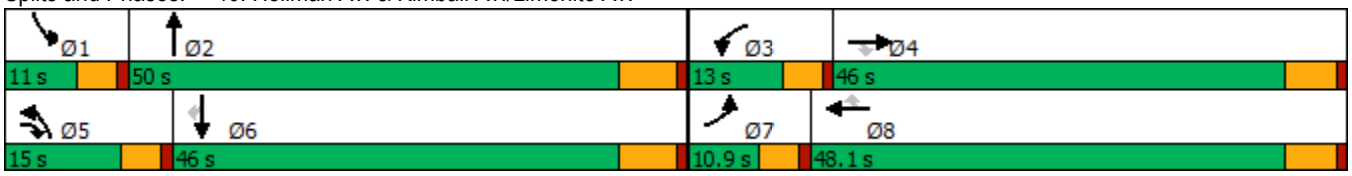
Intersection Summary												
HCM 6th Ctrl Delay			204.7									
HCM 6th LOS			F									

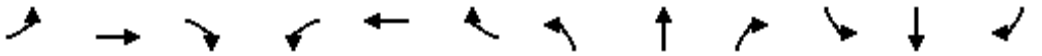
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	30	925	258	483	793	62	326	93	123	98	148
Future Volume (vph)	30	925	258	483	793	62	326	93	123	98	148
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	5	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	37.8	9.6	9.6	37.8	37.8	9.6	43.2	9.6	43.2	43.2
Total Split (s)	10.9	46.0	15.0	13.0	48.1	48.1	15.0	50.0	11.0	46.0	46.0
Total Split (%)	9.1%	38.3%	12.5%	10.8%	40.1%	40.1%	12.5%	41.7%	9.2%	38.3%	38.3%
Yellow Time (s)	3.6	4.8	3.6	3.6	4.8	4.8	3.6	5.2	3.6	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	4.6	5.8	5.8	4.6	6.2	4.6	6.2	6.2
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 97.9
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 40: Hellman Av. & Kimball Av./Limonite Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	925	258	483	793	62	326	93	430	123	98	148
Future Volume (veh/h)	30	925	258	483	793	62	326	93	430	123	98	148
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1700	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	32	974	272	508	835	65	343	98	453	129	103	156
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	49	691	737	239	1484	662	161	561	501	99	992	443
Arrive On Green	0.03	0.36	0.36	0.08	0.41	0.41	0.09	0.31	0.31	0.06	0.27	0.27
Sat Flow, veh/h	1714	1900	1610	3141	3610	1610	1714	1805	1610	1714	3610	1610
Grp Volume(v), veh/h	32	974	272	508	835	65	343	98	453	129	103	156
Grp Sat Flow(s),veh/h/ln	1714	1900	1610	1570	1805	1610	1714	1805	1610	1714	1805	1610
Q Serve(g_s), s	2.0	40.2	12.2	8.4	19.6	2.7	10.4	4.4	29.8	6.4	2.4	8.6
Cycle Q Clear(g_c), s	2.0	40.2	12.2	8.4	19.6	2.7	10.4	4.4	29.8	6.4	2.4	8.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	49	691	737	239	1484	662	161	561	501	99	992	443
V/C Ratio(X)	0.66	1.41	0.37	2.13	0.56	0.10	2.13	0.17	0.90	1.30	0.10	0.35
Avail Cap(c_a), veh/h	98	691	737	239	1484	662	161	715	638	99	1299	579
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.2	35.2	19.6	51.1	24.9	20.0	50.1	27.8	36.5	52.1	29.9	32.2
Incr Delay (d2), s/veh	5.6	193.2	0.3	522.1	0.5	0.1	527.8	0.1	14.0	190.8	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	54.4	4.3	20.5	8.0	1.0	27.9	1.8	12.9	7.9	1.0	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.8	228.4	19.9	573.2	25.4	20.0	577.9	27.9	50.5	242.9	30.0	32.7
LnGrp LOS	E	F	B	F	C	C	F	C	D	F	C	C
Approach Vol, veh/h		1278			1408			894			388	
Approach Delay, s/veh		179.8			222.8			250.4			101.9	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	40.6	13.0	46.0	15.0	36.6	7.7	51.3
Change Period (Y+Rc), s	4.6	6.2	4.6	5.8	4.6	6.2	4.6	5.8
Max Green Setting (Gmax), s	6.4	43.8	8.4	40.2	10.4	39.8	6.3	42.3
Max Q Clear Time (g_c+I1), s	8.4	31.8	10.4	42.2	12.4	10.6	4.0	21.6
Green Ext Time (p_c), s	0.0	2.6	0.0	0.0	0.0	1.0	0.0	5.5

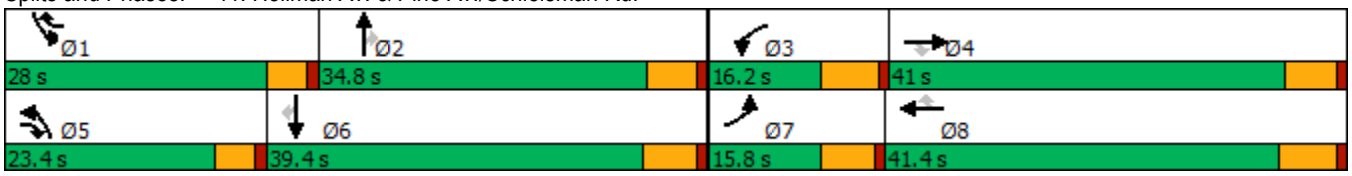
Intersection Summary	
HCM 6th Ctrl Delay	203.4
HCM 6th LOS	F

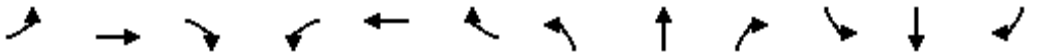
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	186	1305	614	264	1020	159	237	145	69	439	344	293
Future Volume (vph)	186	1305	614	264	1020	159	237	145	69	439	344	293
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	5	3	8	1	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	34.8	9.6	16.2	35.2	9.6	9.6	32.4	32.4	9.6	32.8	32.8
Total Split (s)	15.8	41.0	23.4	16.2	41.4	28.0	23.4	34.8	34.8	28.0	39.4	39.4
Total Split (%)	13.2%	34.2%	19.5%	13.5%	34.5%	23.3%	19.5%	29.0%	29.0%	23.3%	32.8%	32.8%
Yellow Time (s)	4.8	4.8	3.6	5.2	5.2	3.6	3.6	4.4	4.4	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	6.2	6.2	4.6	4.6	5.4	5.4	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 117.3
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 41: Hellman Av. & Pine Av./Schleisman Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	186	1305	614	264	1020	159	237	145	69	439	344	293
Future Volume (veh/h)	186	1305	614	264	1020	159	237	145	69	439	344	293
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1900	1900	1700	1900	1900	1700	1900	1900	1700	1900	1900
Adj Flow Rate, veh/h	198	1388	464	281	1085	108	252	154	46	467	366	293
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	270	1551	639	270	1569	755	308	912	407	523	1159	517
Arrive On Green	0.09	0.30	0.30	0.09	0.30	0.30	0.10	0.25	0.25	0.17	0.32	0.32
Sat Flow, veh/h	3141	5187	1610	3141	5187	1610	3141	3610	1610	3141	3610	1610
Grp Volume(v), veh/h	198	1388	464	281	1085	108	252	154	46	467	366	293
Grp Sat Flow(s),veh/h/ln	1570	1729	1610	1570	1729	1610	1570	1805	1610	1570	1805	1610
Q Serve(g_s), s	7.2	29.8	28.4	10.0	21.5	4.4	9.2	3.9	2.6	16.9	8.9	17.6
Cycle Q Clear(g_c), s	7.2	29.8	28.4	10.0	21.5	4.4	9.2	3.9	2.6	16.9	8.9	17.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	270	1551	639	270	1569	755	308	912	407	523	1159	517
V/C Ratio(X)	0.73	0.90	0.73	1.04	0.69	0.14	0.82	0.17	0.11	0.89	0.32	0.57
Avail Cap(c_a), veh/h	270	1569	645	270	1569	755	508	912	407	632	1159	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.9	39.0	29.7	53.2	35.8	17.6	51.4	33.9	33.4	47.5	29.8	32.8
Incr Delay (d2), s/veh	10.6	7.2	4.4	65.8	1.5	0.1	2.1	0.4	0.6	12.0	0.7	4.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	12.9	11.0	6.3	8.8	1.6	3.6	1.7	1.0	7.2	3.8	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.5	46.3	34.1	119.0	37.3	17.7	53.5	34.3	34.0	59.5	30.6	37.2
LnGrp LOS	E	D	C	F	D	B	D	C	C	E	C	D
Approach Vol, veh/h		2050			1474			452			1126	
Approach Delay, s/veh		45.1			51.4			45.0			44.3	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	35.2	16.2	41.0	16.0	43.1	15.8	41.4
Change Period (Y+Rc), s	4.6	* 5.8	6.2	* 6.2	4.6	5.8	5.8	6.2
Max Green Setting (Gmax), s	23.4	* 29	10.0	* 35	18.8	33.6	10.0	35.2
Max Q Clear Time (g_c+I1), s	18.9	5.9	12.0	31.8	11.2	19.6	9.2	23.5
Green Ext Time (p_c), s	0.4	1.3	0.0	3.0	0.3	3.8	0.1	6.9

Intersection Summary	
HCM 6th Ctrl Delay	46.7
HCM 6th LOS	D

Notes

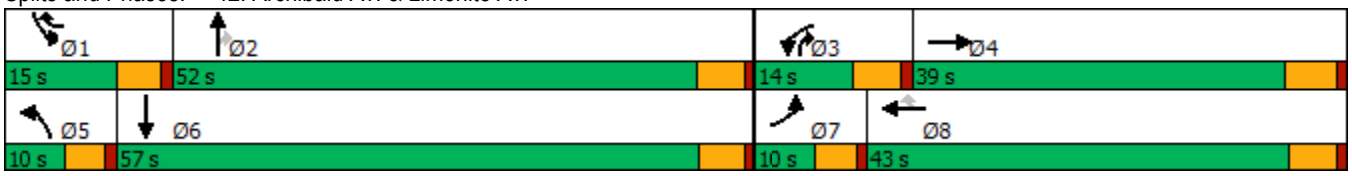
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

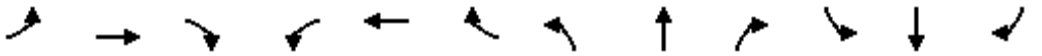
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	204	746	469	728	686	131	1155	482	655	1480
Future Volume (vph)	204	746	469	728	686	131	1155	482	655	1480
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	3	8	1	5	2	3	1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	1	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	6.0	6.0	6.0	5.0	6.0	6.0	6.0	6.0
Minimum Split (s)	9.6	35.8	11.3	36.3	11.0	9.6	46.3	11.3	11.0	43.0
Total Split (s)	10.0	39.0	14.0	43.0	15.0	10.0	52.0	14.0	15.0	57.0
Total Split (%)	8.3%	32.5%	11.7%	35.8%	12.5%	8.3%	43.3%	11.7%	12.5%	47.5%
Yellow Time (s)	3.6	4.8	4.3	4.3	4.0	3.6	4.3	4.3	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.3	5.3	5.0	4.6	5.3	5.3	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 42: Archibald Av. & Limonite Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	204	746	127	469	728	686	131	1155	482	655	1480	279
Future Volume (veh/h)	204	746	127	469	728	686	131	1155	482	655	1480	279
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	222	811	138	479	791	650	142	1179	471	668	1510	303
Peak Hour Factor	0.92	0.92	0.92	0.98	0.92	0.98	0.92	0.98	0.98	0.98	0.98	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	81	441	75	130	593	636	81	739	729	150	661	133
Arrive On Green	0.04	0.28	0.28	0.07	0.31	0.31	0.04	0.39	0.39	0.08	0.43	0.43
Sat Flow, veh/h	1810	1582	269	1810	1900	1610	1810	1900	1576	1810	1536	308
Grp Volume(v), veh/h	222	0	949	479	791	650	142	1179	471	668	0	1813
Grp Sat Flow(s),veh/h/ln	1810	0	1852	1810	1900	1610	1810	1900	1576	1810	0	1845
Q Serve(g_s), s	5.4	0.0	33.7	8.7	37.7	37.7	5.4	47.0	27.7	10.0	0.0	52.0
Cycle Q Clear(g_c), s	5.4	0.0	33.7	8.7	37.7	37.7	5.4	47.0	27.7	10.0	0.0	52.0
Prop In Lane	1.00		0.15	1.00		1.00	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	81	0	517	130	593	636	81	739	729	150	0	794
V/C Ratio(X)	2.74	0.00	1.84	3.68	1.33	1.02	1.76	1.59	0.65	4.46	0.00	2.28
Avail Cap(c_a), veh/h	81	0	517	130	593	636	81	739	729	150	0	794
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.7	0.0	43.6	56.0	41.6	36.6	57.7	36.9	25.0	55.4	0.0	34.4
Incr Delay (d2), s/veh	818.6	0.0	384.3	1222.7	161.6	41.5	385.6	274.1	2.1	1572.1	0.0	581.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.9	0.0	70.4	48.1	43.3	24.7	11.1	76.5	10.0	69.8	0.0	149.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	876.3	0.0	427.8	1278.7	203.1	78.0	443.3	311.0	27.1	1627.5	0.0	615.9
LnGrp LOS	F	A	F	F	F	F	F	F	C	F	A	F
Approach Vol, veh/h		1171			1920			1792			2481	
Approach Delay, s/veh		512.8			429.1			246.9			888.3	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	52.3	14.0	39.5	10.0	57.3	10.0	43.5
Change Period (Y+Rc), s	5.0	5.3	5.3	5.8	4.6	* 5.3	4.6	* 5.8
Max Green Setting (Gmax), s	10.0	46.7	8.7	33.2	5.4	* 52	5.4	* 38
Max Q Clear Time (g_c+I1), s	12.0	49.0	10.7	35.7	7.4	54.0	7.4	39.7
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	552.8
HCM 6th LOS	F

Notes

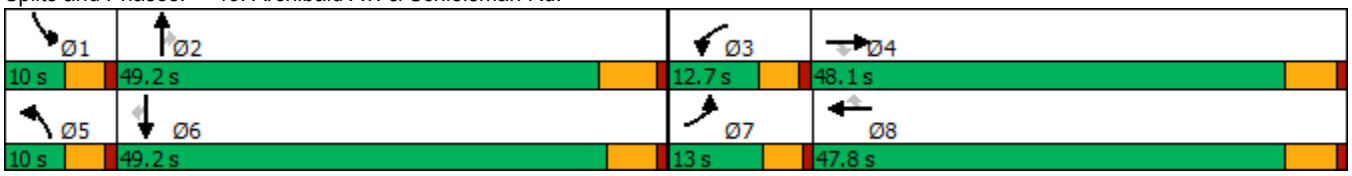
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

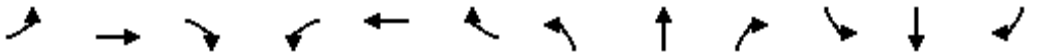
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	520	1575	225	329	869	290	235	1039	242	515	938	466
Future Volume (vph)	520	1575	225	329	869	290	235	1039	242	515	938	466
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	47.8	47.8	9.6	47.8	47.8	9.6	48.2	48.2	9.6	47.4	47.4
Total Split (s)	13.0	48.1	48.1	12.7	47.8	47.8	10.0	49.2	49.2	10.0	49.2	49.2
Total Split (%)	10.8%	40.1%	40.1%	10.6%	39.8%	39.8%	8.3%	41.0%	41.0%	8.3%	41.0%	41.0%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	5.2	5.2	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	6.2	6.2	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 110.1
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 43: Archibald Av. & Schleisman Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	520	1575	225	329	869	290	235	1039	242	515	938	466
Future Volume (veh/h)	520	1575	225	329	869	290	235	1039	242	515	938	466
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	531	1607	148	336	887	270	240	1060	210	526	957	362
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	270	2011	624	261	1997	619	174	1526	474	174	1526	472
Arrive On Green	0.08	0.39	0.39	0.07	0.38	0.38	0.05	0.29	0.29	0.05	0.29	0.29
Sat Flow, veh/h	3510	5187	1610	3510	5187	1608	3510	5187	1610	3510	5187	1605
Grp Volume(v), veh/h	531	1607	148	336	887	270	240	1060	210	526	957	362
Grp Sat Flow(s),veh/h/ln	1755	1729	1610	1755	1729	1608	1755	1729	1610	1755	1729	1605
Q Serve(g_s), s	8.4	30.0	6.8	8.1	13.8	13.5	5.4	19.8	11.5	5.4	17.4	22.4
Cycle Q Clear(g_c), s	8.4	30.0	6.8	8.1	13.8	13.5	5.4	19.8	11.5	5.4	17.4	22.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	270	2011	624	261	1997	619	174	1526	474	174	1526	472
V/C Ratio(X)	1.96	0.80	0.24	1.29	0.44	0.44	1.38	0.69	0.44	3.03	0.63	0.77
Avail Cap(c_a), veh/h	270	2011	624	261	1997	619	174	2045	635	174	2083	644
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.3	29.6	22.5	50.5	24.9	24.8	51.8	34.2	31.2	51.8	33.3	35.1
Incr Delay (d2), s/veh	447.2	3.4	0.9	155.8	0.7	2.2	203.2	0.7	0.7	927.4	0.4	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.4	12.3	2.6	9.1	5.5	5.3	7.2	7.9	4.4	24.7	6.9	8.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	497.5	33.1	23.4	206.3	25.6	27.0	255.1	34.8	31.9	979.2	33.7	38.9
LnGrp LOS	F	C	C	F	C	C	F	C	C	F	C	D
Approach Vol, veh/h		2286			1493			1510			1845	
Approach Delay, s/veh		140.3			66.5			69.4			304.3	
Approach LOS		F			E			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	38.3	12.7	48.1	10.0	38.3	13.0	47.8
Change Period (Y+Rc), s	4.6	6.2	4.6	5.8	4.6	* 6.2	4.6	5.8
Max Green Setting (Gmax), s	5.4	43.0	8.1	42.3	5.4	* 44	8.4	42.0
Max Q Clear Time (g_c+I1), s	7.4	21.8	10.1	32.0	7.4	24.4	10.4	15.8
Green Ext Time (p_c), s	0.0	7.6	0.0	7.2	0.0	7.2	0.0	7.2

Intersection Summary	
HCM 6th Ctrl Delay	152.3
HCM 6th LOS	F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 8.2:

HORIZON YEAR (2040) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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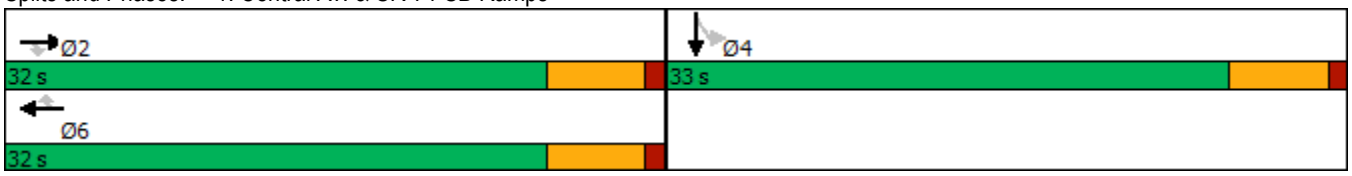
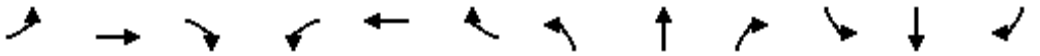
Lane Group	EBT	EBR	WBT	WBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1576	106	774	251	558	0
Future Volume (vph)	1576	106	774	251	558	0
Turn Type	NA	Perm	NA	Perm	Perm	NA
Protected Phases	2		6			4
Permitted Phases		2		6	4	
Detector Phase	2	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	22.8	22.8	15.8	15.8
Total Split (s)	32.0	32.0	32.0	32.0	33.0	33.0
Total Split (%)	49.2%	49.2%	49.2%	49.2%	50.8%	50.8%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max	Max	None	None

Intersection Summary
Cycle Length: 65
Actuated Cycle Length: 61.8
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Central Av. & SR-71 SB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱↱				↰	✣	
Traffic Volume (veh/h)	0	1576	106	0	774	251	0	0	0	558	0	352
Future Volume (veh/h)	0	1576	106	0	774	251	0	0	0	558	0	352
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	0	1791	0	0	880	0				433	281	233
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2317		0	2317					643	341	283
Arrive On Green	0.00	0.45	0.00	0.00	0.45	0.00				0.36	0.36	0.36
Sat Flow, veh/h	0	5358	1610	0	5358	2834				1810	960	796
Grp Volume(v), veh/h	0	1791	0	0	880	0				433	0	514
Grp Sat Flow(s),veh/h/ln	0	1729	1610	0	1729	1417				1810	0	1757
Q Serve(g_s), s	0.0	17.1	0.0	0.0	6.6	0.0				11.9	0.0	15.6
Cycle Q Clear(g_c), s	0.0	17.1	0.0	0.0	6.6	0.0				11.9	0.0	15.6
Prop In Lane	0.00		1.00	0.00		1.00				1.00		0.45
Lane Grp Cap(c), veh/h	0	2317		0	2317					643	0	625
V/C Ratio(X)	0.00	0.77		0.00	0.38					0.67	0.00	0.82
Avail Cap(c_a), veh/h	0	2317		0	2317					839	0	815
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	13.7	0.0	0.0	10.8	0.0				16.0	0.0	17.2
Incr Delay (d2), s/veh	0.0	2.6	0.0	0.0	0.5	0.0				1.4	0.0	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.5	0.0	0.0	2.0	0.0				4.2	0.0	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	16.3	0.0	0.0	11.3	0.0				17.4	0.0	22.5
LnGrp LOS	A	B		A	B					B	A	C
Approach Vol, veh/h		1791	A		880	A					947	
Approach Delay, s/veh		16.3			11.3						20.2	
Approach LOS		B			B						C	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		32.0		26.7		32.0						
Change Period (Y+Rc), s		5.8		5.8		5.8						
Max Green Setting (Gmax), s		26.2		27.2		26.2						
Max Q Clear Time (g_c+I1), s		19.1		17.6		8.6						
Green Ext Time (p_c), s		6.1		3.2		7.0						

Intersection Summary	
HCM 6th Ctrl Delay	16.1
HCM 6th LOS	B

Notes

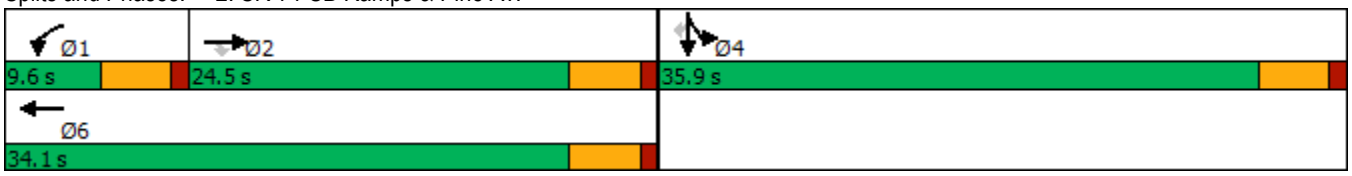
User approved volume balancing among the lanes for turning movement.

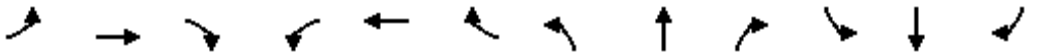
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	710	36	63	265	1	199
Future Volume (vph)	710	36	63	265	1	199
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	21.7	21.7	9.6	21.7	35.7	35.7
Total Split (s)	24.5	24.5	9.6	34.1	35.9	35.9
Total Split (%)	35.0%	35.0%	13.7%	48.7%	51.3%	51.3%
Yellow Time (s)	3.7	3.7	3.6	3.7	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7	4.6	4.7	4.7	4.7
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Max	Max

Intersection Summary
Cycle Length: 70
Actuated Cycle Length: 68.1
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: SR-71 SB Ramps & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	710	36	63	265	0	0	0	0	478	1	199
Future Volume (veh/h)	0	710	36	63	265	0	0	0	0	478	1	199
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	826	36	73	308	0				556	1	141
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86				0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	547	464	99	1478	0				820	1	731
Arrive On Green	0.00	0.29	0.29	0.05	0.41	0.00				0.45	0.45	0.45
Sat Flow, veh/h	0	1900	1610	1810	3705	0				1806	3	1610
Grp Volume(v), veh/h	0	826	36	73	308	0				557	0	141
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	19.8	1.1	2.7	3.8	0.0				16.7	0.0	3.6
Cycle Q Clear(g_c), s	0.0	19.8	1.1	2.7	3.8	0.0				16.7	0.0	3.6
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	547	464	99	1478	0				821	0	731
V/C Ratio(X)	0.00	1.51	0.08	0.74	0.21	0.00				0.68	0.00	0.19
Avail Cap(c_a), veh/h	0	547	464	132	1544	0				821	0	731
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	24.5	17.8	32.0	13.1	0.0				14.8	0.0	11.2
Incr Delay (d2), s/veh	0.0	238.7	0.1	8.6	0.1	0.0				4.5	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	44.2	0.4	1.4	1.4	0.0				7.1	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	263.2	17.9	40.6	13.2	0.0				19.3	0.0	11.8
LnGrp LOS	A	F	B	D	B	A				B	A	B
Approach Vol, veh/h		862			381						698	
Approach Delay, s/veh		253.0			18.5						17.8	
Approach LOS		F			B						B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	8.4	24.5		35.9		32.9
Change Period (Y+Rc), s	4.6	* 4.7		* 4.7		* 4.7
Max Green Setting (Gmax), s	5.0	* 20		* 31		* 29
Max Q Clear Time (g_c+I1), s	4.7	21.8		18.7		5.8
Green Ext Time (p_c), s	0.0	0.0		3.5		2.6

Intersection Summary		
HCM 6th Ctrl Delay		122.4
HCM 6th LOS		F

Notes

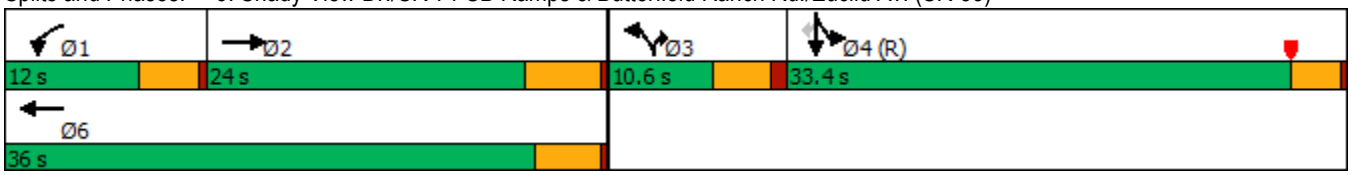
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

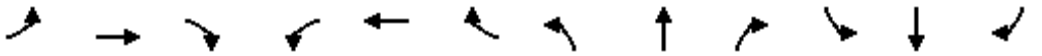
Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	819	234	404	21	330	669	30	14
Future Volume (vph)	819	234	404	21	330	669	30	14
Turn Type	NA	Prot	NA	Prot	Prot	Split	NA	Perm
Protected Phases	2	1	6	3	3	4	4	
Permitted Phases								4
Detector Phase	2	1	6	3	3	4	4	4
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	9.0	26.5	9.5	9.5	32.5	32.5	32.5
Total Split (s)	24.0	12.0	36.0	10.6	10.6	33.4	33.4	33.4
Total Split (%)	30.0%	15.0%	45.0%	13.3%	13.3%	41.8%	41.8%	41.8%
Yellow Time (s)	4.5	3.5	4.0	3.5	3.5	3.0	3.0	3.0
All-Red Time (s)	0.5	0.5	0.5	1.0	1.0	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	4.5	4.5	4.5	3.5	3.5	3.5
Lead/Lag	Lag	Lead		Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	None	None	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 4:SBTL, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 3: Shady View Dr./SR-71 SB Ramps & Butterfield Ranch Rd./Euclid Av. (SR-83)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	819	36	234	404	0	21	0	330	669	30	14
Future Volume (veh/h)	0	819	36	234	404	0	21	0	330	669	30	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	1900	0	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	836	28	239	412	0	21	0	268	705	0	-2
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	846	28	181	1399		0	0	0	1832	0	815
Arrive On Green	0.00	0.24	0.24	0.03	0.13	0.00	0.00	0.00	0.00	0.51	0.00	0.00
Sat Flow, veh/h	0	3659	119	1810	3705	0		0		3619	0	1610
Grp Volume(v), veh/h	0	423	441	239	412	0		0.0		705	0	-2
Grp Sat Flow(s),veh/h/ln	0	1805	1879	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	18.7	18.7	8.0	8.3	0.0				9.6	0.0	0.0
Cycle Q Clear(g_c), s	0.0	18.7	18.7	8.0	8.3	0.0				9.6	0.0	0.0
Prop In Lane	0.00		0.06	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	429	446	181	1399					1832	0	815
V/C Ratio(X)	0.00	0.99	0.99	1.32	0.29					0.38	0.00	0.00
Avail Cap(c_a), veh/h	0	429	446	181	1421					1832	0	815
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.71	0.71	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	30.4	30.4	38.7	25.0	0.0				12.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	40.0	39.2	169.2	0.1	0.0				0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	12.2	12.6	12.1	3.5	0.0				3.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	70.4	69.6	207.8	25.0	0.0				12.7	0.0	0.0
LnGrp LOS	A	E	E	F	C					B	A	A
Approach Vol, veh/h		864			651	A					703	
Approach Delay, s/veh		70.0			92.2						12.8	
Approach LOS		E			F						B	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	12.0	24.0		44.0		36.0						
Change Period (Y+Rc), s	4.0	5.0		3.5		* 5						
Max Green Setting (Gmax), s	8.0	19.0		29.9		* 32						
Max Q Clear Time (g_c+I1), s	10.0	20.7		11.6		10.3						
Green Ext Time (p_c), s	0.0	0.0		2.4		1.9						

Intersection Summary			
HCM 6th Ctrl Delay		58.3	
HCM 6th LOS		E	

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

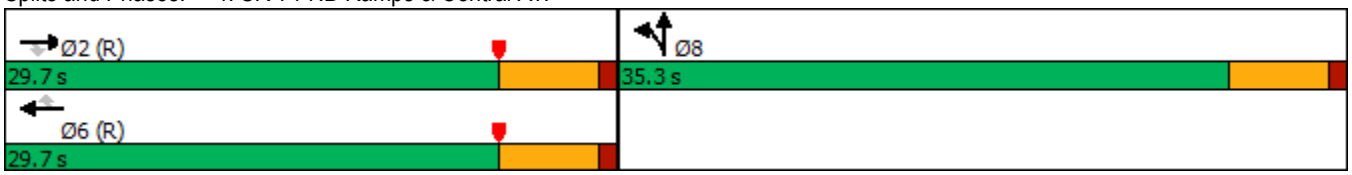
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	1265	870	911	1111	114	0
Future Volume (vph)	1265	870	911	1111	114	0
Turn Type	NA	Perm	NA	Perm	Split	NA
Protected Phases	2		6		8	8
Permitted Phases		2		6		
Detector Phase	2	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	15.8	15.8	22.8	22.8
Total Split (s)	29.7	29.7	29.7	29.7	35.3	35.3
Total Split (%)	45.7%	45.7%	45.7%	45.7%	54.3%	54.3%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 63.9 (98%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 4: SR-71 NB Ramps & Central Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰	↕				
Traffic Volume (veh/h)	0	1265	870	0	911	1111	114	0	437	0	0	0
Future Volume (veh/h)	0	1265	870	0	911	1111	114	0	437	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	0	1438	0	0	1035	0	130	0	290			
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	0	3076		0	3076		414	0	368			
Arrive On Green	0.00	0.59	0.00	0.00	0.59	0.00	0.23	0.00	0.23			
Sat Flow, veh/h	0	5358	1610	0	5358	1610	1810	0	1610			
Grp Volume(v), veh/h	0	1438	0	0	1035	0	130	0	290			
Grp Sat Flow(s),veh/h/ln	0	1729	1610	0	1729	1610	1810	0	1610			
Q Serve(g_s), s	0.0	10.1	0.0	0.0	6.6	0.0	3.9	0.0	11.0			
Cycle Q Clear(g_c), s	0.0	10.1	0.0	0.0	6.6	0.0	3.9	0.0	11.0			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3076		0	3076		414	0	368			
V/C Ratio(X)	0.00	0.47		0.00	0.34		0.31	0.00	0.79			
Avail Cap(c_a), veh/h	0	3076		0	3076		821	0	731			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.48	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	7.5	0.0	0.0	6.7	0.0	20.8	0.0	23.6			
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.3	0.0	0.4	0.0	3.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	2.6	0.0	0.0	1.7	0.0	1.5	0.0	4.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	7.7	0.0	0.0	7.0	0.0	21.3	0.0	27.4			
LnGrp LOS	A	A		A	A		C	A	C			
Approach Vol, veh/h		1438	A		1035	A		420				
Approach Delay, s/veh		7.7			7.0			25.5				
Approach LOS		A			A			C				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		44.3				44.3		20.7				
Change Period (Y+Rc), s		5.8				5.8		5.8				
Max Green Setting (Gmax), s		23.9				23.9		29.5				
Max Q Clear Time (g_c+I1), s		12.1				8.6		13.0				
Green Ext Time (p_c), s		7.0				5.9		1.9				

Intersection Summary	
HCM 6th Ctrl Delay	10.0
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	353.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	495	692	0	0	262	934	67	6	116	0	0	0
Future Vol, veh/h	495	692	0	0	262	934	67	6	116	0	0	0
Peak Hour Factor	0.86	0.92	0.86	0.92	0.92	0.92	0.86	0.86	0.92	0.92	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	576	752	0	0	285	1015	78	7	126	0	0	0
Number of Lanes	2	1	0	0	1	0	1	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	31.9	736.5	18.3
HCM LOS	D	F	C

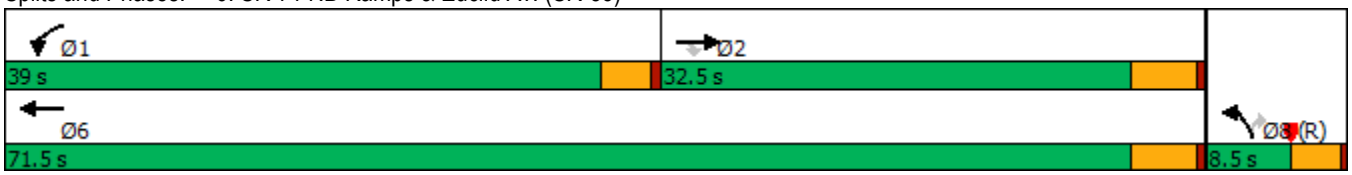
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1
Vol Left, %	100%	5%	100%	100%	0%	0%
Vol Thru, %	0%	5%	0%	0%	100%	22%
Vol Right, %	0%	90%	0%	0%	0%	78%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	60	129	248	248	692	1196
LT Vol	60	7	248	248	0	0
Through Vol	0	6	0	0	692	262
RT Vol	0	116	0	0	0	934
Lane Flow Rate	70	141	288	288	752	1300
Geometry Grp	8	8	7	7	7	8
Degree of Util (X)	0.179	0.317	0.525	0.525	0.913	2.589
Departure Headway (Hd)	12.149	10.957	8.095	8.095	5.806	7.17
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	297	331	449	449	632	520
Service Time	9.849	8.657	5.795	5.795	3.506	4.891
HCM Lane V/C Ratio	0.236	0.426	0.641	0.641	1.19	2.5
HCM Control Delay	17.5	18.7	19.4	19.4	41.5	736.5
HCM Lane LOS	C	C	C	C	E	F
HCM 95th-tile Q	0.6	1.3	3	3	11.6	104.1

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	526	49	401	1659	156	560
Future Volume (vph)	526	49	401	1659	156	560
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	32.5	32.5	8.5	9.5	8.5	8.5
Total Split (s)	32.5	32.5	39.0	71.5	8.5	8.5
Total Split (%)	40.6%	40.6%	48.8%	89.4%	10.6%	10.6%
Yellow Time (s)	4.0	4.0	3.0	4.0	3.0	3.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	3.5	4.5	3.5	3.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 9.5 (12%), Referenced to phase 4: and 8:NBL, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 6: SR-71 NB Ramps & Euclid Av. (SR-83)





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	526	49	401	1659	156	560
Future Volume (veh/h)	526	49	401	1659	156	560
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	560	0	427	1765	166	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1090		475	2196	1024	
Arrive On Green	0.10	0.00	0.26	0.61	0.29	0.00
Sat Flow, veh/h	3705	1610	1810	3705	3510	1610
Grp Volume(v), veh/h	560	0	427	1765	166	0
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805	1755	1610
Q Serve(g_s), s	11.8	0.0	18.2	30.0	2.8	0.0
Cycle Q Clear(g_c), s	11.8	0.0	18.2	30.0	2.8	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1090		475	2196	1024	
V/C Ratio(X)	0.51		0.90	0.80	0.16	
Avail Cap(c_a), veh/h	1264		803	3023	1024	
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.17	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.4	0.0	28.5	12.0	21.1	0.0
Incr Delay (d2), s/veh	0.0	0.0	6.3	1.2	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	0.0	7.7	8.5	1.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	30.5	0.0	34.8	13.2	21.4	0.0
LnGrp LOS	C		C	B	C	
Approach Vol, veh/h	560	A		2192	166	A
Approach Delay, s/veh	30.5			17.4	21.4	
Approach LOS	C			B	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	24.5	28.7				53.2	26.8
Change Period (Y+Rc), s	3.5	4.5				4.5	3.5
Max Green Setting (Gmax), s	35.5	28.0				67.0	5.0
Max Q Clear Time (g_c+I1), s	20.2	13.8				32.0	4.8
Green Ext Time (p_c), s	0.8	2.4				16.7	0.0

Intersection Summary	
HCM 6th Ctrl Delay	20.1
HCM 6th LOS	C

Notes

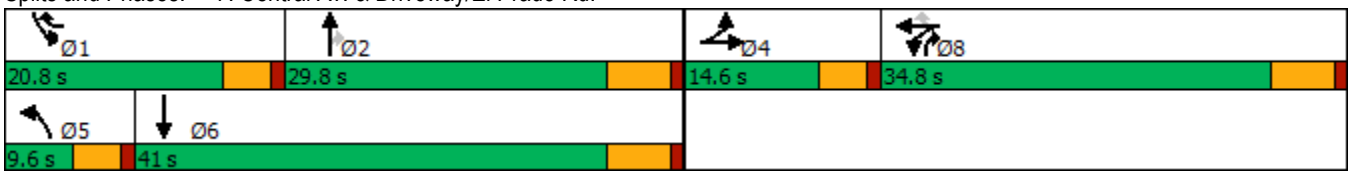
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

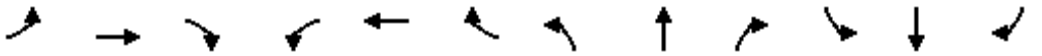
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	3	7	670	4	591	2	930	506	330	781
Future Volume (vph)	3	7	670	4	591	2	930	506	330	781
Turn Type	Split	NA	Split	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	4	4	8	8	1	5	2	8	1	6
Permitted Phases					8			2		
Detector Phase	4	4	8	8	1	5	2	8	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	34.8	34.8	9.6	9.6	27.8	34.8	9.6	24.8
Total Split (s)	14.6	14.6	34.8	34.8	20.8	9.6	29.8	34.8	20.8	41.0
Total Split (%)	14.6%	14.6%	34.8%	34.8%	20.8%	9.6%	29.8%	34.8%	20.8%	41.0%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	5.8	4.6	4.6	5.8	5.8	4.6	5.8
Lead/Lag					Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	None	Max

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 81.4
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Central Av. & Driveway/El Prado Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	7	1	670	4	591	2	930	506	330	781	14
Future Volume (veh/h)	3	7	1	670	4	591	2	930	506	330	781	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	3	7	0	687	0	386	2	949	342	337	797	11
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	43	47	0	810	0	697	5	1049	838	336	2552	35
Arrive On Green	0.02	0.02	0.00	0.24	0.00	0.24	0.00	0.29	0.29	0.20	0.48	0.48
Sat Flow, veh/h	1714	1900	0	3429	0	1610	1714	3610	1573	1714	5270	73
Grp Volume(v), veh/h	3	7	0	687	0	386	2	949	342	337	523	285
Grp Sat Flow(s),veh/h/ln	1714	1900	0	1714	0	1610	1714	1805	1573	1714	1729	1885
Q Serve(g_s), s	0.1	0.3	0.0	15.8	0.0	14.8	0.1	20.9	10.8	16.2	7.6	7.6
Cycle Q Clear(g_c), s	0.1	0.3	0.0	15.8	0.0	14.8	0.1	20.9	10.8	16.2	7.6	7.6
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	43	47	0	810	0	697	5	1049	838	336	1674	913
V/C Ratio(X)	0.07	0.15	0.00	0.85	0.00	0.55	0.43	0.90	0.41	1.00	0.31	0.31
Avail Cap(c_a), veh/h	208	230	0	1204	0	881	104	1049	838	336	1674	913
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.3	39.4	0.0	30.1	0.0	17.5	41.1	28.2	11.8	33.2	12.9	12.9
Incr Delay (d2), s/veh	0.3	0.5	0.0	2.5	0.0	0.3	21.6	12.6	1.5	49.6	0.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.1	0.0	6.2	0.0	4.7	0.1	10.0	5.9	10.8	2.7	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.6	39.9	0.0	32.6	0.0	17.7	62.7	40.7	13.3	82.7	13.4	13.8
LnGrp LOS	D	D	A	C	A	B	E	D	B	F	B	B
Approach Vol, veh/h		10			1073			1293			1145	
Approach Delay, s/veh		39.8			27.3			33.5			33.9	
Approach LOS		D			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.8	29.8		6.6	4.8	45.8		25.3				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		5.8				
Max Green Setting (Gmax), s	16.2	24.0		10.0	5.0	35.2		29.0				
Max Q Clear Time (g_c+I1), s	18.2	22.9		2.3	2.1	9.6		17.8				
Green Ext Time (p_c), s	0.0	0.8		0.0	0.0	5.0		1.7				

Intersection Summary		
HCM 6th Ctrl Delay		31.8
HCM 6th LOS		C

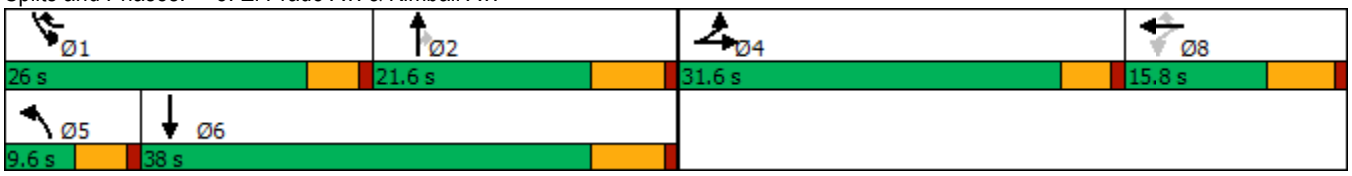
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	24	5	34	17	893	6	305	33	490	262
Future Volume (vph)	24	5	34	17	893	6	305	33	490	262
Turn Type	Split	NA	Perm	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	4	4		8	1	5	2		1	6
Permitted Phases			8		8			2		
Detector Phase	4	4	8	8	1	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	15.8	15.8	9.6	9.6	16.2	16.2	9.6	24.2
Total Split (s)	31.6	31.6	15.8	15.8	26.0	9.6	21.6	21.6	26.0	38.0
Total Split (%)	33.3%	33.3%	16.6%	16.6%	27.4%	10.1%	22.7%	22.7%	27.4%	40.0%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		5.8	4.6	4.6	6.2	6.2	4.6	6.2
Lead/Lag					Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary
Cycle Length: 95
Actuated Cycle Length: 69.2
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: El Prado Av. & Kimball Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	5	3	34	17	893	6	305	33	490	262	42
Future Volume (veh/h)	24	5	3	34	17	893	6	305	33	490	262	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	25	5	2	36	18	543	6	321	35	516	276	41
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	112	84	34	168	84	695	13	402	341	504	1568	230
Arrive On Green	0.07	0.07	0.07	0.14	0.14	0.14	0.01	0.21	0.21	0.29	0.50	0.50
Sat Flow, veh/h	1714	1291	516	1226	613	1610	1714	1900	1610	1714	3149	462
Grp Volume(v), veh/h	25	0	7	54	0	543	6	321	35	516	157	160
Grp Sat Flow(s),veh/h/ln	1714	0	1807	1839	0	1610	1714	1900	1610	1714	1805	1805
Q Serve(g_s), s	1.0	0.0	0.3	1.9	0.0	10.0	0.3	11.7	1.3	21.4	3.5	3.6
Cycle Q Clear(g_c), s	1.0	0.0	0.3	1.9	0.0	10.0	0.3	11.7	1.3	21.4	3.5	3.6
Prop In Lane	1.00		0.29	0.67		1.00	1.00		1.00	1.00		0.26
Lane Grp Cap(c), veh/h	112	0	118	253	0	695	13	402	341	504	899	899
V/C Ratio(X)	0.22	0.00	0.06	0.21	0.00	0.78	0.45	0.80	0.10	1.02	0.17	0.18
Avail Cap(c_a), veh/h	636	0	671	253	0	695	118	402	341	504	899	899
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.2	0.0	31.9	27.9	0.0	17.7	35.9	27.2	23.1	25.7	10.0	10.1
Incr Delay (d2), s/veh	1.0	0.0	0.2	0.4	0.0	5.8	8.4	15.2	0.6	46.2	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.1	0.8	0.0	7.6	0.1	6.4	0.5	13.9	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.2	0.0	32.1	28.3	0.0	23.5	44.3	42.4	23.7	71.8	10.5	10.5
LnGrp LOS	C	A	C	C	A	C	D	D	C	F	B	B
Approach Vol, veh/h		32			597			362			833	
Approach Delay, s/veh		33.0			23.9			40.6			48.5	
Approach LOS		C			C			D			D	

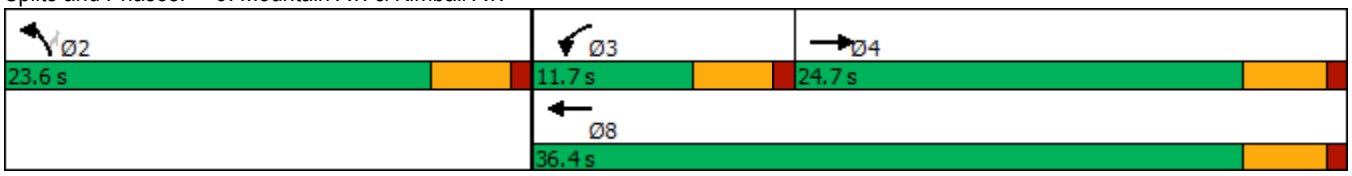
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	26.0	21.6		9.4	5.2	42.4		15.8				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		5.8				
Max Green Setting (Gmax), s	21.4	15.4		27.0	5.0	31.8		10.0				
Max Q Clear Time (g_c+I1), s	23.4	13.7		3.0	2.3	5.6		12.0				
Green Ext Time (p_c), s	0.0	0.3		0.1	0.0	1.6		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		38.6	
HCM 6th LOS		D	

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	407	132	1281	94	43
Future Volume (vph)	407	132	1281	94	43
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	4	3	8	2	
Permitted Phases					2
Detector Phase	4	3	8	2	2
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	24.7	9.6	14.7	23.6	23.6
Total Split (s)	24.7	11.7	36.4	23.6	23.6
Total Split (%)	41.2%	19.5%	60.7%	39.3%	39.3%
Yellow Time (s)	3.7	3.6	3.7	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.6	4.7	4.6	4.6
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	Max	None	Max	None	None

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 52.9
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 9: Mountain Av. & Kimball Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	407	116	132	1281	94	43
Future Volume (veh/h)	407	116	132	1281	94	43
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1800	1900	1800	1900
Adj Flow Rate, veh/h	428	111	139	1348	99	43
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1257	323	175	2308	297	279
Arrive On Green	0.44	0.44	0.10	0.64	0.17	0.17
Sat Flow, veh/h	2924	727	1714	3705	1714	1610
Grp Volume(v), veh/h	271	268	139	1348	99	43
Grp Sat Flow(s),veh/h/ln	1805	1751	1714	1805	1714	1610
Q Serve(g_s), s	4.9	5.0	3.9	10.7	2.5	1.1
Cycle Q Clear(g_c), s	4.9	5.0	3.9	10.7	2.5	1.1
Prop In Lane		0.41	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	802	778	175	2308	297	279
V/C Ratio(X)	0.34	0.34	0.79	0.58	0.33	0.15
Avail Cap(c_a), veh/h	802	778	245	2308	657	617
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.0	9.0	21.7	5.1	18.0	17.4
Incr Delay (d2), s/veh	1.1	1.2	7.4	1.1	0.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	1.6	1.7	1.9	0.9	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.2	10.2	29.1	6.2	18.6	17.7
LnGrp LOS	B	B	C	A	B	B
Approach Vol, veh/h	539			1487	142	
Approach Delay, s/veh	10.2			8.4	18.3	
Approach LOS	B			A	B	

Timer - Assigned Phs	2	3	4	8
Phs Duration (G+Y+Rc), s	13.2	9.7	26.7	36.4
Change Period (Y+Rc), s	4.6	4.6	* 4.7	* 4.7
Max Green Setting (Gmax), s	19.0	7.1	* 20	* 32
Max Q Clear Time (g_c+I1), s	4.5	5.9	7.0	12.7
Green Ext Time (p_c), s	0.3	0.0	2.4	9.1

Intersection Summary	
HCM 6th Ctrl Delay	9.5
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	6.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	134	199	103	52	63	96
Future Vol, veh/h	134	199	103	52	63	96
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	163	243	126	63	77	117

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	429	158	0	0	189	0
Stage 1	158	-	-	-	-	-
Stage 2	271	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	587	893	-	-	1397	-
Stage 1	875	-	-	-	-	-
Stage 2	779	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	555	893	-	-	1397	-
Mov Cap-2 Maneuver	612	-	-	-	-	-
Stage 1	875	-	-	-	-	-
Stage 2	736	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.5	0	3.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	612	893	1397	-
HCM Lane V/C Ratio	-	-	0.267	0.272	0.055	-
HCM Control Delay (s)	-	-	13	10.5	7.7	-
HCM Lane LOS	-	-	B	B	A	-
HCM 95th %tile Q(veh)	-	-	1.1	1.1	0.2	-

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	7	148	8	25	206
Future Vol, veh/h	2	7	148	8	25	206
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	2	8	161	9	27	224

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	444	166	0	0	170	0
Stage 1	166	-	-	-	-	-
Stage 2	278	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	575	884	-	-	1420	-
Stage 1	868	-	-	-	-	-
Stage 2	774	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	564	884	-	-	1420	-
Mov Cap-2 Maneuver	623	-	-	-	-	-
Stage 1	868	-	-	-	-	-
Stage 2	759	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	0.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	809	1420	-
HCM Lane V/C Ratio	-	-	0.012	0.019	-
HCM Control Delay (s)	-	-	9.5	7.6	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0.1	-

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	10	146	81	33	176
Future Vol, veh/h	24	10	146	81	33	176
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	26	11	159	88	36	191

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	466	203	0	0	247	0
Stage 1	203	-	-	-	-	-
Stage 2	263	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	559	843	-	-	1331	-
Stage 1	836	-	-	-	-	-
Stage 2	786	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	544	843	-	-	1331	-
Mov Cap-2 Maneuver	611	-	-	-	-	-
Stage 1	836	-	-	-	-	-
Stage 2	765	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	1.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	665	1331	-
HCM Lane V/C Ratio	-	-	0.056	0.027	-
HCM Control Delay (s)	-	-	10.7	7.8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	5	223	24	17	182
Future Vol, veh/h	7	5	223	24	17	182
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	5	242	26	18	198

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	489	255	0	0	268	0
Stage 1	255	-	-	-	-	-
Stage 2	234	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	542	789	-	-	1307	-
Stage 1	792	-	-	-	-	-
Stage 2	810	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	534	789	-	-	1307	-
Mov Cap-2 Maneuver	607	-	-	-	-	-
Stage 1	792	-	-	-	-	-
Stage 2	799	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.5	0	0.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	672	1307	-
HCM Lane V/C Ratio	-	-	0.019	0.014	-
HCM Control Delay (s)	-	-	10.5	7.8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	133	56	289	233	13	124
Future Vol, veh/h	133	56	289	233	13	124
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	145	61	314	253	14	135

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	604	441	0	0	567	0
Stage 1	441	-	-	-	-	-
Stage 2	163	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	465	621	-	-	1015	-
Stage 1	653	-	-	-	-	-
Stage 2	871	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	458	621	-	-	1015	-
Mov Cap-2 Maneuver	458	-	-	-	-	-
Stage 1	653	-	-	-	-	-
Stage 2	858	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.3	0	0.8
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	497	1015	-
HCM Lane V/C Ratio	-	-	0.413	0.014	-
HCM Control Delay (s)	-	-	17.3	8.6	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	2	0	-

Intersection	
Intersection Delay, s/veh	587.4
Intersection LOS	F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	190	590	1288	333	147	111
Future Vol, veh/h	190	590	1288	333	147	111
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	209	648	1415	366	162	122
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	221.7	853.3	22.7
HCM LOS	F	F	C

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	24%	0%	57%
Vol Thru, %	76%	79%	0%
Vol Right, %	0%	21%	43%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	780	1621	258
LT Vol	190	0	147
Through Vol	590	1288	0
RT Vol	0	333	111
Lane Flow Rate	857	1781	284
Geometry Grp	1	1	1
Degree of Util (X)	1.414	2.854	0.54
Departure Headway (Hd)	8.049	6.342	9.323
Convergence, Y/N	Yes	Yes	Yes
Cap	463	588	391
Service Time	6.049	4.342	7.323
HCM Lane V/C Ratio	1.851	3.029	0.726
HCM Control Delay	221.7	853.3	22.7
HCM Lane LOS	F	F	C
HCM 95th-tile Q	30.8	136	3.1

Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	115	0	41	333	0	12
Future Vol, veh/h	115	0	41	333	0	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	125	0	45	362	0	13

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	125	0	577	125
Stage 1	-	-	-	-	125	-
Stage 2	-	-	-	-	452	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1474	-	482	931
Stage 1	-	-	-	-	906	-
Stage 2	-	-	-	-	645	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1474	-	467	931
Mov Cap-2 Maneuver	-	-	-	-	532	-
Stage 1	-	-	-	-	906	-
Stage 2	-	-	-	-	625	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	931	-	-	1474	-
HCM Lane V/C Ratio	0.014	-	-	0.03	-
HCM Control Delay (s)	8.9	-	-	7.5	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	127	0	8	374	0	2
Future Vol, veh/h	127	0	8	374	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	138	0	9	407	0	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	138	0	563	138
Stage 1	-	-	-	-	138	-
Stage 2	-	-	-	-	425	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1458	-	491	916
Stage 1	-	-	-	-	894	-
Stage 2	-	-	-	-	664	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1458	-	488	916
Mov Cap-2 Maneuver	-	-	-	-	556	-
Stage 1	-	-	-	-	894	-
Stage 2	-	-	-	-	660	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	916	-	-	1458	-
HCM Lane V/C Ratio	0.002	-	-	0.006	-
HCM Control Delay (s)	8.9	-	-	7.5	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	130	0	8	382	0	2
Future Vol, veh/h	130	0	8	382	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	141	0	9	415	0	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	141	0	574	141
Stage 1	-	-	-	-	141	-
Stage 2	-	-	-	-	433	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1455	-	484	912
Stage 1	-	-	-	-	891	-
Stage 2	-	-	-	-	658	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1455	-	481	912
Mov Cap-2 Maneuver	-	-	-	-	550	-
Stage 1	-	-	-	-	891	-
Stage 2	-	-	-	-	654	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	9
HCM LOS			A

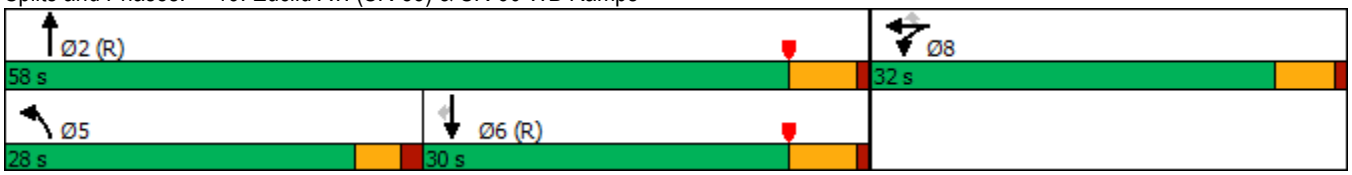
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	912	-	-	1455	-
HCM Lane V/C Ratio	0.002	-	-	0.006	-
HCM Control Delay (s)	9	-	-	7.5	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

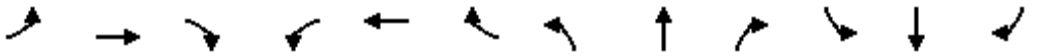
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	837	7	516	548	1184	1221	593
Future Volume (vph)	837	7	516	548	1184	1221	593
Turn Type	Split	NA	Perm	Prot	NA	NA	Perm
Protected Phases	8	8		5	2	6	
Permitted Phases			8				6
Detector Phase	8	8	8	5	2	6	6
Switch Phase							
Minimum Initial (s)	6.0	6.0	6.0	5.0	10.0	10.0	10.0
Minimum Split (s)	11.0	11.0	11.0	9.5	22.5	22.5	22.5
Total Split (s)	32.0	32.0	32.0	28.0	58.0	30.0	30.0
Total Split (%)	35.6%	35.6%	35.6%	31.1%	64.4%	33.3%	33.3%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.5	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.5	5.5	5.5	5.5
Lead/Lag				Lead		Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 63 (70%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 19: Euclid Av. (SR-83) & SR-60 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	837	7	516	548	1184	0	0	1221	593
Future Volume (veh/h)	0	0	0	837	7	516	548	1184	0	0	1221	593
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				995	0	222	583	1260	0	0	1299	403
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				1064	0	473	472	2127	0	0	1004	448
Arrive On Green				0.29	0.00	0.29	0.52	1.00	0.00	0.00	0.28	0.28
Sat Flow, veh/h				3619	0	1610	1810	3705	0	0	3705	1610
Grp Volume(v), veh/h				995	0	222	583	1260	0	0	1299	403
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1810	1805	0	0	1805	1610
Q Serve(g_s), s				24.1	0.0	10.2	23.5	0.0	0.0	0.0	25.0	21.7
Cycle Q Clear(g_c), s				24.1	0.0	10.2	23.5	0.0	0.0	0.0	25.0	21.7
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1064	0	473	472	2127	0	0	1004	448
V/C Ratio(X)				0.94	0.00	0.47	1.23	0.59	0.00	0.00	1.29	0.90
Avail Cap(c_a), veh/h				1086	0	483	472	2127	0	0	1004	448
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.09	0.09	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				30.9	0.0	26.0	21.5	0.0	0.0	0.0	32.5	31.3
Incr Delay (d2), s/veh				14.0	0.0	0.3	107.0	0.1	0.0	0.0	139.5	23.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				11.7	0.0	3.7	19.6	0.0	0.0	0.0	29.7	10.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				44.9	0.0	26.3	128.5	0.1	0.0	0.0	172.0	54.9
LnGrp LOS				D	A	C	F	A	A	A	F	D
Approach Vol, veh/h					1217			1843			1702	
Approach Delay, s/veh					41.5			40.7			144.3	
Approach LOS					D			D			F	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		58.5			28.0	30.5		31.5				
Change Period (Y+Rc), s		5.5			4.5	5.5		5.0				
Max Green Setting (Gmax), s		52.5			23.5	24.5		27.0				
Max Q Clear Time (g_c+I1), s		2.0			25.5	27.0		26.1				
Green Ext Time (p_c), s		18.2			0.0	0.0		0.4				

Intersection Summary												
HCM 6th Ctrl Delay			77.9									
HCM 6th LOS			E									

Notes

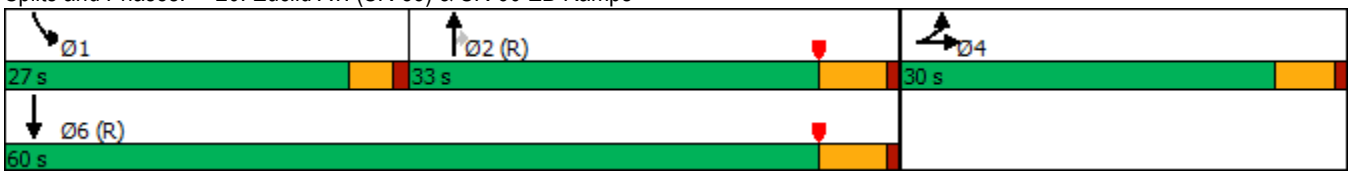
User approved volume balancing among the lanes for turning movement.

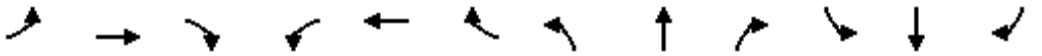
Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	520	3	1211	867	459	1599
Future Volume (vph)	520	3	1211	867	459	1599
Turn Type	Split	NA	NA	Perm	Prot	NA
Protected Phases	4	4	2		1	6
Permitted Phases				2		
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	6.0	6.0	10.0	10.0	5.0	10.0
Minimum Split (s)	11.0	11.0	22.5	22.5	9.0	22.5
Total Split (s)	30.0	30.0	33.0	33.0	27.0	60.0
Total Split (%)	33.3%	33.3%	36.7%	36.7%	30.0%	66.7%
Yellow Time (s)	4.0	4.0	4.5	4.5	3.0	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.5	5.5	4.0	5.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Min	C-Min	None	C-Min

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 20: Euclid Av. (SR-83) & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	520	3	665	0	0	0	0	1211	867	459	1599	0
Future Volume (veh/h)	520	3	665	0	0	0	0	1211	867	459	1599	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	547	3	645				0	1275	714	483	1683	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	503	2	446				0	1103	478	462	2186	0
Arrive On Green	0.28	0.28	0.28				0.00	0.31	0.31	0.51	1.00	0.00
Sat Flow, veh/h	1810	7	1604				0	3705	1566	1810	3705	0
Grp Volume(v), veh/h	547	0	648				0	1275	714	483	1683	0
Grp Sat Flow(s),veh/h/ln	1810	0	1611				0	1805	1566	1810	1805	0
Q Serve(g_s), s	25.0	0.0	25.0				0.0	27.5	27.5	23.0	0.0	0.0
Cycle Q Clear(g_c), s	25.0	0.0	25.0				0.0	27.5	27.5	23.0	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	503	0	448				0	1103	478	462	2186	0
V/C Ratio(X)	1.09	0.00	1.45				0.00	1.16	1.49	1.04	0.77	0.00
Avail Cap(c_a), veh/h	503	0	448				0	1103	478	462	2186	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.37	0.37	0.09	0.09	0.00
Uniform Delay (d), s/veh	32.5	0.0	32.5				0.0	31.3	31.2	22.0	0.0	0.0
Incr Delay (d2), s/veh	66.2	0.0	213.8				0.0	74.4	225.7	26.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.3	0.0	35.6				0.0	22.5	39.7	8.9	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	98.7	0.0	246.3				0.0	105.6	257.0	48.3	0.2	0.0
LnGrp LOS	F	A	F				A	F	F	F	A	A
Approach Vol, veh/h		1195						1989			2166	
Approach Delay, s/veh		178.7						160.0			11.0	
Approach LOS		F						F			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	27.0	33.0		30.0		60.0
Change Period (Y+Rc), s	4.0	5.5		5.0		5.5
Max Green Setting (Gmax), s	23.0	27.5		25.0		54.5
Max Q Clear Time (g_c+I1), s	25.0	29.5		27.0		2.0
Green Ext Time (p_c), s	0.0	0.0		0.0		29.3

Intersection Summary	
HCM 6th Ctrl Delay	103.8
HCM 6th LOS	F

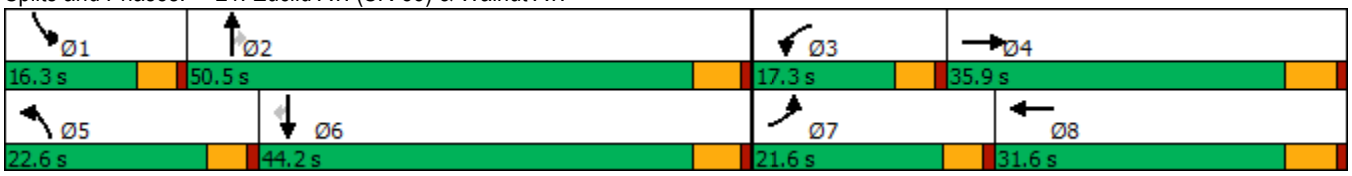
Notes

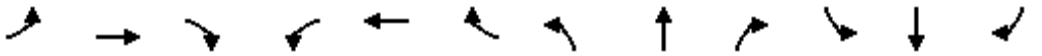
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	252	365	91	388	162	1595	58	189	1840	123
Future Volume (vph)	252	365	91	388	162	1595	58	189	1840	123
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.8	9.6	29.8	9.6	27.4	27.4	9.6	29.4	29.4
Total Split (s)	21.6	35.9	17.3	31.6	22.6	50.5	50.5	16.3	44.2	44.2
Total Split (%)	18.0%	29.9%	14.4%	26.3%	18.8%	42.1%	42.1%	13.6%	36.8%	36.8%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 117
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 21: Euclid Av. (SR-83) & Walnut Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	252	365	151	91	388	258	162	1595	58	189	1840	123
Future Volume (veh/h)	252	365	151	91	388	258	162	1595	58	189	1840	123
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1700	1900	1900
Adj Flow Rate, veh/h	265	384	123	96	408	232	171	1679	43	199	1937	108
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	252	767	243	119	460	259	198	2022	627	252	1838	570
Arrive On Green	0.15	0.28	0.28	0.07	0.21	0.21	0.12	0.39	0.39	0.08	0.35	0.35
Sat Flow, veh/h	1714	2698	853	1714	2225	1251	1714	5187	1609	3141	5187	1609
Grp Volume(v), veh/h	265	255	252	96	330	310	171	1679	43	199	1937	108
Grp Sat Flow(s),veh/h/ln	1714	1805	1746	1714	1805	1671	1714	1729	1609	1570	1729	1609
Q Serve(g_s), s	17.0	13.6	13.9	6.4	20.5	20.9	11.3	33.8	1.9	7.2	41.0	5.4
Cycle Q Clear(g_c), s	17.0	13.6	13.9	6.4	20.5	20.9	11.3	33.8	1.9	7.2	41.0	5.4
Prop In Lane	1.00		0.49	1.00		0.75	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	252	513	497	119	374	346	198	2022	627	252	1838	570
V/C Ratio(X)	1.05	0.50	0.51	0.81	0.88	0.90	0.86	0.83	0.07	0.79	1.05	0.19
Avail Cap(c_a), veh/h	252	513	497	188	402	372	267	2022	627	318	1838	570
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.4	34.5	34.6	53.1	44.5	44.7	50.3	31.9	22.1	52.3	37.4	25.9
Incr Delay (d2), s/veh	71.1	0.7	0.8	5.8	19.2	22.4	15.5	4.1	0.2	7.8	36.9	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.0	5.9	5.8	2.9	10.8	10.5	5.6	14.2	0.7	3.1	22.8	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	120.5	35.3	35.5	58.9	63.8	67.1	65.8	36.0	22.4	60.1	74.3	26.6
LnGrp LOS	F	D	D	E	E	E	E	D	C	E	F	C
Approach Vol, veh/h		772			736			1893			2244	
Approach Delay, s/veh		64.6			64.5			38.4			70.7	
Approach LOS		E			E			D			E	

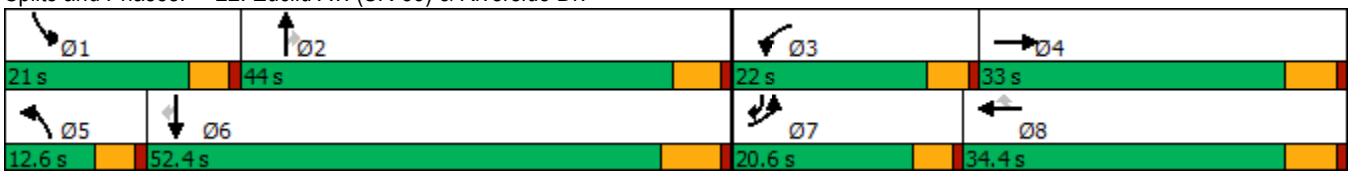
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.9	50.5	12.6	38.7	18.0	46.4	21.6	29.7
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	11.7	45.1	12.7	30.1	18.0	38.8	17.0	25.8
Max Q Clear Time (g_c+I1), s	9.2	35.8	8.4	15.9	13.3	43.0	19.0	22.9
Green Ext Time (p_c), s	0.1	6.8	0.0	2.3	0.1	0.0	0.0	1.0

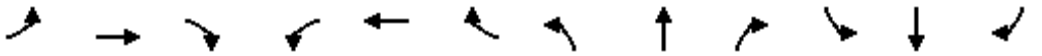
Intersection Summary	
HCM 6th Ctrl Delay	58.2
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	193	453	241	616	145	156	1330	201	219	1620	192
Future Volume (vph)	193	453	241	616	145	156	1330	201	219	1620	192
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4	3	8		5	2		1	6	7
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	25.8	9.6	31.8	31.8	9.6	30.4	30.4	9.6	34.5	9.6
Total Split (s)	20.6	33.0	22.0	34.4	34.4	12.6	44.0	44.0	21.0	52.4	20.6
Total Split (%)	17.2%	27.5%	18.3%	28.7%	28.7%	10.5%	36.7%	36.7%	17.5%	43.7%	17.2%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Euclid Av. (SR-83) & Riverside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	453	129	241	616	145	156	1330	201	219	1620	192
Future Volume (veh/h)	193	453	129	241	616	145	156	1330	201	219	1620	192
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	203	477	120	254	648	124	164	1400	172	231	1705	143
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	226	329	83	246	853	380	113	1151	513	232	1401	837
Arrive On Green	0.13	0.22	0.22	0.14	0.24	0.24	0.07	0.32	0.32	0.14	0.39	0.39
Sat Flow, veh/h	1714	1465	369	1714	3610	1610	1714	3610	1610	1714	3610	1609
Grp Volume(v), veh/h	203	0	597	254	648	124	164	1400	172	231	1705	143
Grp Sat Flow(s),veh/h/ln	1714	0	1834	1714	1805	1610	1714	1805	1610	1714	1805	1609
Q Serve(g_s), s	14.1	0.0	27.2	17.4	20.2	7.7	8.0	38.6	9.9	16.3	47.0	5.7
Cycle Q Clear(g_c), s	14.1	0.0	27.2	17.4	20.2	7.7	8.0	38.6	9.9	16.3	47.0	5.7
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	226	0	412	246	853	380	113	1151	513	232	1401	837
V/C Ratio(X)	0.90	0.00	1.45	1.03	0.76	0.33	1.45	1.22	0.34	1.00	1.22	0.17
Avail Cap(c_a), veh/h	226	0	412	246	853	380	113	1151	513	232	1401	837
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.7	0.0	47.0	51.8	43.1	38.3	56.5	41.3	31.5	52.3	37.1	15.3
Incr Delay (d2), s/veh	32.7	0.0	215.5	65.7	4.0	0.5	244.1	105.6	1.8	57.5	104.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	0.0	36.6	11.8	9.2	3.0	11.0	32.8	4.0	10.6	40.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.4	0.0	262.5	117.5	47.1	38.8	300.7	146.9	33.2	109.8	141.4	15.7
LnGrp LOS	F	A	F	F	D	D	F	F	C	F	F	B
Approach Vol, veh/h		800			1026			1736			2079	
Approach Delay, s/veh		217.3			63.5			150.1			129.3	
Approach LOS		F			E			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	45.1	22.0	33.0	12.6	53.5	20.6	34.4
Change Period (Y+Rc), s	4.6	* 6.5	4.6	5.8	4.6	6.5	4.6	5.8
Max Green Setting (Gmax), s	16.4	* 39	17.4	27.2	8.0	45.9	16.0	28.6
Max Q Clear Time (g_c+I1), s	18.3	40.6	19.4	29.2	10.0	49.0	16.1	22.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3

Intersection Summary	
HCM 6th Ctrl Delay	136.2
HCM 6th LOS	F

Notes

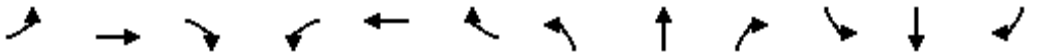
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	131	243	63	105	285	67	1430	180	70	1755	116
Future Volume (vph)	131	243	63	105	285	67	1430	180	70	1755	116
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	28.8	28.8	28.8	33.8	33.8	9.6	24.2	24.2	9.6	31.5	31.5
Total Split (s)	44.0	44.0	44.0	44.0	44.0	15.0	60.0	60.0	16.0	61.0	61.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	12.5%	50.0%	50.0%	13.3%	50.8%	50.8%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	3.6	4.2	4.2	3.6	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8		5.8	4.6	5.2	5.2	4.6	6.5	6.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 116.2
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: Euclid Av. (SR-83) & Chino Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	243	63	105	285	80	67	1430	180	70	1755	116
Future Volume (veh/h)	131	243	63	105	285	80	67	1430	180	70	1755	116
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	139	259	51	112	303	73	71	1521	167	74	1867	92
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	207	624	529	119	267	61	90	1702	759	94	1710	747
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.05	0.47	0.47	0.05	0.47	0.47
Sat Flow, veh/h	969	1900	1609	246	811	186	1714	3610	1610	1714	3610	1577
Grp Volume(v), veh/h	139	259	51	488	0	0	71	1521	167	74	1867	92
Grp Sat Flow(s),veh/h/ln	969	1900	1609	1243	0	0	1714	1805	1610	1714	1805	1577
Q Serve(g_s), s	0.0	12.3	2.6	25.9	0.0	0.0	4.8	44.7	7.1	5.0	55.0	3.8
Cycle Q Clear(g_c), s	35.9	12.3	2.6	38.2	0.0	0.0	4.8	44.7	7.1	5.0	55.0	3.8
Prop In Lane	1.00		1.00	0.23		0.15	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	207	624	529	447	0	0	90	1702	759	94	1710	747
V/C Ratio(X)	0.67	0.41	0.10	1.09	0.00	0.00	0.79	0.89	0.22	0.79	1.09	0.12
Avail Cap(c_a), veh/h	207	624	529	447	0	0	153	1702	759	168	1710	747
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.3	30.3	27.1	43.3	0.0	0.0	54.4	28.1	18.1	54.3	30.6	17.1
Incr Delay (d2), s/veh	8.2	0.4	0.1	70.1	0.0	0.0	5.7	7.7	0.7	5.5	51.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	5.5	1.0	21.4	0.0	0.0	2.1	19.0	2.6	2.2	33.3	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.5	30.8	27.1	113.4	0.0	0.0	60.2	35.7	18.8	59.8	82.1	17.4
LnGrp LOS	D	C	C	F	A	A	E	D	B	E	F	B
Approach Vol, veh/h		449			488			1759			2033	
Approach Delay, s/veh		35.2			113.4			35.1			78.3	
Approach LOS		D			F			D			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.9	61.3		44.0	10.7	61.5		44.0				
Change Period (Y+Rc), s	4.6	* 6.5		5.8	4.6	6.5		5.8				
Max Green Setting (Gmax), s	11.4	* 55		38.2	10.4	54.5		38.2				
Max Q Clear Time (g_c+I1), s	7.0	46.7		37.9	6.8	57.0		40.2				
Green Ext Time (p_c), s	0.0	5.7		0.1	0.0	0.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		61.8	
HCM 6th LOS		E	

Notes

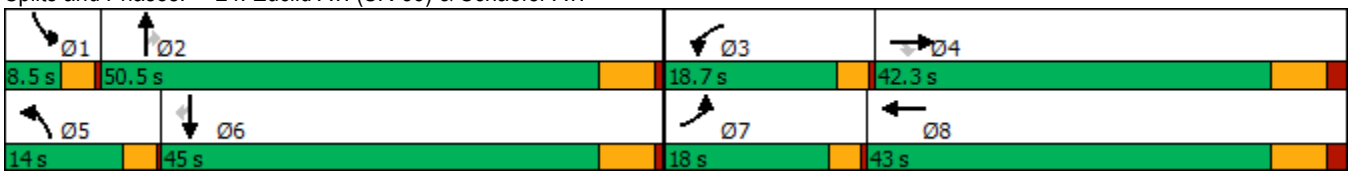
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

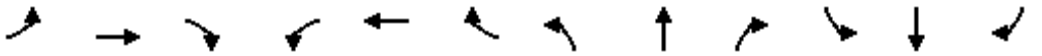
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	193	92	98	177	377	229	1391	44	39	1657	457
Future Volume (vph)	193	92	98	177	377	229	1391	44	39	1657	457
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.5	42.0	42.0	13.5	43.0	8.5	33.0	33.0	8.5	28.0	28.0
Total Split (s)	18.0	42.3	42.3	18.7	43.0	14.0	50.5	50.5	8.5	45.0	45.0
Total Split (%)	15.0%	35.3%	35.3%	15.6%	35.8%	11.7%	42.1%	42.1%	7.1%	37.5%	37.5%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	7.0	7.0	3.5	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Euclid Av. (SR-83) & Schaefer Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	92	98	177	377	186	229	1391	44	39	1657	457
Future Volume (veh/h)	193	92	98	177	377	186	229	1391	44	39	1657	457
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	208	99	86	190	405	198	246	1496	37	42	1782	457
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	207	561	476	215	361	177	150	1376	614	54	1173	522
Arrive On Green	0.12	0.30	0.30	0.13	0.30	0.30	0.09	0.38	0.38	0.03	0.32	0.32
Sat Flow, veh/h	1714	1900	1610	1714	1204	588	1714	3610	1610	1714	3610	1605
Grp Volume(v), veh/h	208	99	86	190	0	603	246	1496	37	42	1782	457
Grp Sat Flow(s),veh/h/ln	1714	1900	1610	1714	0	1792	1714	1805	1610	1714	1805	1605
Q Serve(g_s), s	14.5	4.6	4.8	13.1	0.0	36.0	10.5	45.7	1.7	2.9	39.0	32.2
Cycle Q Clear(g_c), s	14.5	4.6	4.8	13.1	0.0	36.0	10.5	45.7	1.7	2.9	39.0	32.2
Prop In Lane	1.00		1.00	1.00		0.33	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	207	561	476	215	0	538	150	1376	614	54	1173	522
V/C Ratio(X)	1.00	0.18	0.18	0.88	0.00	1.12	1.64	1.09	0.06	0.78	1.52	0.88
Avail Cap(c_a), veh/h	207	561	476	217	0	538	150	1376	614	71	1173	522
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.8	31.4	31.5	51.6	0.0	42.0	54.8	37.1	23.5	57.7	40.5	38.2
Incr Delay (d2), s/veh	63.6	0.1	0.1	30.8	0.0	76.8	316.0	51.7	0.0	23.3	237.9	15.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	2.1	1.8	7.3	0.0	26.7	17.5	28.3	0.7	1.6	54.8	14.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	116.3	31.5	31.6	82.4	0.0	118.8	370.8	88.8	23.6	81.0	278.4	53.6
LnGrp LOS	F	C	C	F	A	F	F	F	C	F	F	D
Approach Vol, veh/h		393			793			1779			2281	
Approach Delay, s/veh		76.4			110.0			126.5			229.7	
Approach LOS		E			F			F			F	

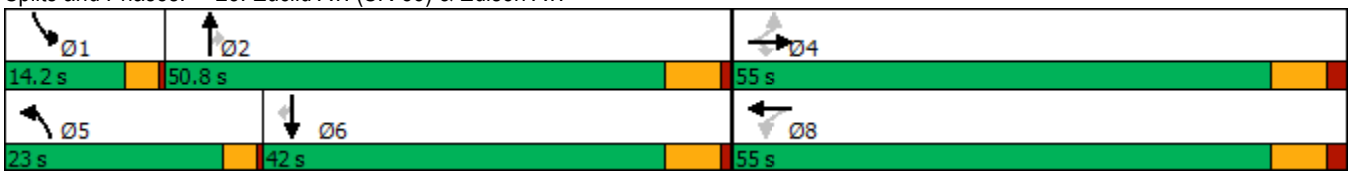
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	51.7	18.6	42.4	14.0	45.0	18.0	43.0
Change Period (Y+Rc), s	3.5	6.0	3.5	7.0	3.5	6.0	3.5	7.0
Max Green Setting (Gmax), s	5.0	44.5	15.2	35.3	10.5	39.0	14.5	36.0
Max Q Clear Time (g_c+I1), s	4.9	47.7	15.1	6.8	12.5	41.0	16.5	38.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0

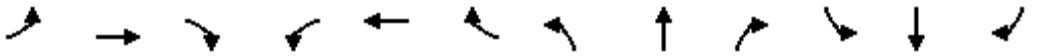
Intersection Summary	
HCM 6th Ctrl Delay	165.1
HCM 6th LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	196	971	162	210	1121	282	1292	152	286	1433	211
Future Volume (vph)	196	971	162	210	1121	282	1292	152	286	1433	211
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	46.0	46.0	46.0	49.0	49.0	8.5	29.0	29.0	8.5	40.0	40.0
Total Split (s)	55.0	55.0	55.0	55.0	55.0	23.0	50.8	50.8	14.2	42.0	42.0
Total Split (%)	45.8%	45.8%	45.8%	45.8%	45.8%	19.2%	42.3%	42.3%	11.8%	35.0%	35.0%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 25: Euclid Av. (SR-83) & Edison Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	196	971	162	210	1121	336	282	1292	152	286	1433	211
Future Volume (veh/h)	196	971	162	210	1121	336	282	1292	152	286	1433	211
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	204	1011	114	219	1168	345	294	1346	150	298	1493	169
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	60	760	644	60	563	166	279	1348	601	153	1083	471
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.16	0.37	0.37	0.09	0.30	0.30
Sat Flow, veh/h	333	1900	1609	482	1409	416	1714	3610	1610	1714	3610	1571
Grp Volume(v), veh/h	204	1011	114	219	0	1513	294	1346	150	298	1493	169
Grp Sat Flow(s),veh/h/ln	333	1900	1609	482	0	1825	1714	1805	1610	1714	1805	1571
Q Serve(g_s), s	0.0	48.0	5.5	0.0	0.0	48.0	19.5	44.7	7.7	10.7	36.0	10.1
Cycle Q Clear(g_c), s	48.0	48.0	5.5	48.0	0.0	48.0	19.5	44.7	7.7	10.7	36.0	10.1
Prop In Lane	1.00		1.00	1.00		0.23	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	760	644	60	0	730	279	1348	601	153	1083	471
V/C Ratio(X)	3.40	1.33	0.18	3.65	0.00	2.07	1.06	1.00	0.25	1.95	1.38	0.36
Avail Cap(c_a), veh/h	60	760	644	60	0	730	279	1348	601	153	1083	471
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.0	36.0	23.2	60.0	0.0	36.0	50.2	37.6	26.0	54.7	42.0	32.9
Incr Delay (d2), s/veh	1120.9	157.6	0.1	1232.5	0.0	487.5	69.2	24.2	0.2	450.2	176.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.5	54.1	2.0	22.3	0.0	118.8	13.3	22.6	2.8	23.5	41.4	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1180.9	193.6	23.4	1292.5	0.0	523.5	119.5	61.8	26.2	504.9	218.2	33.4
LnGrp LOS	F	F	C	F	A	F	F	E	C	F	F	C
Approach Vol, veh/h		1329			1732			1790			1960	
Approach Delay, s/veh		330.6			620.8			68.3			245.9	
Approach LOS		F			F			E			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.2	50.8		55.0	23.0	42.0		55.0				
Change Period (Y+Rc), s	3.5	6.0		7.0	3.5	6.0		7.0				
Max Green Setting (Gmax), s	10.7	44.8		48.0	19.5	36.0		48.0				
Max Q Clear Time (g_c+I1), s	12.7	46.7		50.0	21.5	38.0		50.0				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.0		0.0				

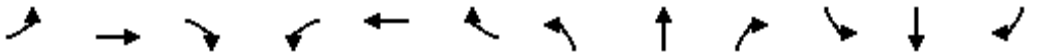
Intersection Summary												
HCM 6th Ctrl Delay			311.0									
HCM 6th LOS			F									

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	84	42	205	385	194	221	1533	133	114	1587	51
Future Volume (vph)	84	42	205	385	194	221	1533	133	114	1587	51
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	46.8	46.8	46.8	46.8	46.8	8.5	30.7	30.7	8.5	37.7	37.7
Total Split (s)	46.8	46.8	46.8	46.8	46.8	24.0	63.5	63.5	9.7	49.2	49.2
Total Split (%)	39.0%	39.0%	39.0%	39.0%	39.0%	20.0%	52.9%	52.9%	8.1%	41.0%	41.0%
Yellow Time (s)	4.3	4.3	4.3	4.3	4.3	3.0	4.7	4.7	3.0	4.7	4.7
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.8	4.8	3.5	5.7	5.7	3.5	5.7	5.7
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 113.2
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 26: Euclid Av. (SR-83) & Eucalyptus Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	42	205	385	194	187	221	1533	133	114	1587	51
Future Volume (veh/h)	84	42	205	385	194	187	221	1533	133	114	1587	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	86	43	123	393	198	183	226	1564	135	116	1619	41
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	233	679	575	463	325	300	253	1701	758	90	1358	605
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.15	0.47	0.47	0.05	0.38	0.38
Sat Flow, veh/h	964	1900	1610	1174	909	840	1714	3610	1610	1714	3610	1608
Grp Volume(v), veh/h	86	43	123	393	0	381	226	1564	135	116	1619	41
Grp Sat Flow(s),veh/h/ln	964	1900	1610	1174	0	1749	1714	1805	1610	1714	1805	1608
Q Serve(g_s), s	9.5	1.8	6.3	38.9	0.0	21.1	15.2	47.5	5.7	6.2	44.2	1.9
Cycle Q Clear(g_c), s	30.5	1.8	6.3	40.7	0.0	21.1	15.2	47.5	5.7	6.2	44.2	1.9
Prop In Lane	1.00		1.00	1.00		0.48	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	233	679	575	463	0	625	253	1701	758	90	1358	605
V/C Ratio(X)	0.37	0.06	0.21	0.85	0.00	0.61	0.89	0.92	0.18	1.28	1.19	0.07
Avail Cap(c_a), veh/h	233	679	575	463	0	625	299	1774	791	90	1358	605
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.6	24.9	26.3	38.2	0.0	31.1	49.2	29.0	18.0	55.7	36.7	23.5
Incr Delay (d2), s/veh	0.7	0.0	0.1	13.6	0.0	1.5	23.6	8.1	0.1	188.5	93.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.8	2.3	12.3	0.0	8.8	7.9	20.2	2.0	7.3	35.5	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.3	24.9	26.4	51.8	0.0	32.6	72.8	37.1	18.1	244.2	130.6	23.5
LnGrp LOS	D	C	C	D	A	C	E	D	B	F	F	C
Approach Vol, veh/h		252			774			1925			1776	
Approach Delay, s/veh		32.3			42.4			40.0			135.6	
Approach LOS		C			D			D			F	

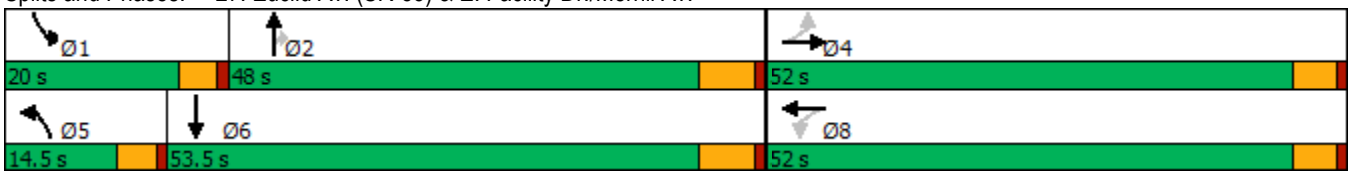
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.7	61.1		46.8	20.8	49.9		46.8				
Change Period (Y+Rc), s	3.5	5.7		4.8	3.5	5.7		4.8				
Max Green Setting (Gmax), s	6.2	57.8		42.0	20.5	43.5		42.0				
Max Q Clear Time (g_c+I1), s	8.2	49.5		32.5	17.2	46.2		42.7				
Green Ext Time (p_c), s	0.0	5.8		0.5	0.1	0.0		0.0				

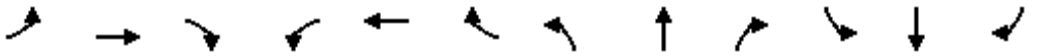
Intersection Summary			
HCM 6th Ctrl Delay		75.9	
HCM 6th LOS		E	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	10	10	388	60	13	1300	443	364	1510
Future Volume (vph)	10	10	388	60	13	1300	443	364	1510
Turn Type	Perm	NA	Perm	NA	Prot	NA	Perm	Prot	NA
Protected Phases		4		8	5	2		1	6
Permitted Phases	4		8				2		
Detector Phase	4	4	8	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	15.0	15.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	10.0	10.0	46.0	46.0	14.5	28.0	28.0	14.5	28.0
Total Split (s)	52.0	52.0	52.0	52.0	14.5	48.0	48.0	20.0	53.5
Total Split (%)	43.3%	43.3%	43.3%	43.3%	12.1%	40.0%	40.0%	16.7%	44.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.5	5.0	5.0	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	4.5	6.0	6.0	4.5	6.0
Lead/Lag					Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 27: Euclid Av. (SR-83) & E. Facility Dr./Merrill Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	10	21	388	60	458	13	1300	443	364	1510	49
Future Volume (veh/h)	10	10	21	388	60	458	13	1300	443	364	1510	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	10	10	21	400	62	445	13	1340	414	375	1557	37
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	158	164	299	309	41	295	50	1264	564	221	1620	38
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.03	0.35	0.35	0.13	0.45	0.45
Sat Flow, veh/h	308	419	763	678	105	754	1714	3610	1610	1714	3602	85
Grp Volume(v), veh/h	41	0	0	907	0	0	13	1340	414	375	779	815
Grp Sat Flow(s),veh/h/ln	1490	0	0	1538	0	0	1714	1805	1610	1714	1805	1882
Q Serve(g_s), s	0.0	0.0	0.0	45.2	0.0	0.0	0.9	42.0	27.0	15.5	50.1	50.4
Cycle Q Clear(g_c), s	1.8	0.0	0.0	47.0	0.0	0.0	0.9	42.0	27.0	15.5	50.1	50.4
Prop In Lane	0.24		0.51	0.44		0.49	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	621	0	0	646	0	0	50	1264	564	221	812	847
V/C Ratio(X)	0.07	0.00	0.00	1.41	0.00	0.00	0.26	1.06	0.73	1.69	0.96	0.96
Avail Cap(c_a), veh/h	621	0	0	646	0	0	143	1264	564	221	812	847
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.7	0.0	0.0	37.9	0.0	0.0	57.0	39.0	34.1	52.3	31.9	32.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	191.5	0.0	0.0	1.0	43.0	5.0	330.8	22.1	22.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	52.7	0.0	0.0	0.4	24.7	10.6	26.7	24.6	25.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.8	0.0	0.0	229.4	0.0	0.0	58.0	82.0	39.1	383.1	54.0	54.3
LnGrp LOS	C	A	A	F	A	A	E	F	D	F	D	D
Approach Vol, veh/h		41			907			1767			1969	
Approach Delay, s/veh		22.8			229.4			71.8			116.8	
Approach LOS		C			F			E			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.0	48.0		52.0	8.0	60.0		52.0				
Change Period (Y+Rc), s	4.5	6.0		5.0	4.5	6.0		5.0				
Max Green Setting (Gmax), s	15.5	42.0		47.0	10.0	47.5		47.0				
Max Q Clear Time (g_c+I1), s	17.5	44.0		3.8	2.9	52.4		49.0				
Green Ext Time (p_c), s	0.0	0.0		0.2	0.0	0.0		0.0				

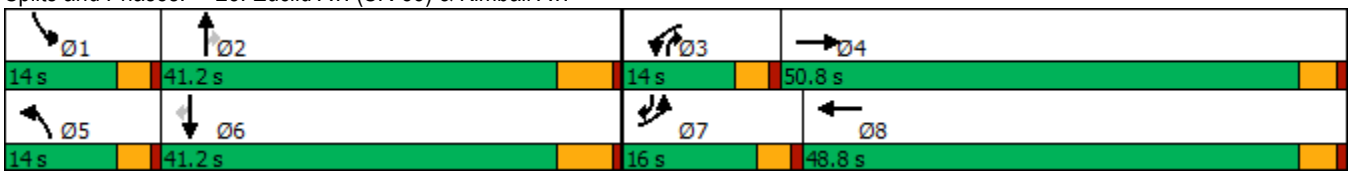
Intersection Summary												
HCM 6th Ctrl Delay			120.8									
HCM 6th LOS			F									

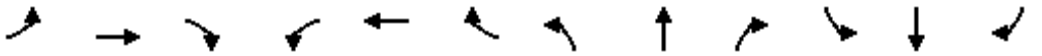
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	213	322	226	941	178	1235	68	280	1273	483
Future Volume (vph)	213	322	226	941	178	1235	68	280	1273	483
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	3	8	5	2	3	1	6	7
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	7
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	14.0	49.5	14.0	45.5	14.0	36.0	14.0	9.0	33.0	14.0
Total Split (s)	16.0	50.8	14.0	48.8	14.0	41.2	14.0	14.0	41.2	16.0
Total Split (%)	13.3%	42.3%	11.7%	40.7%	11.7%	34.3%	11.7%	11.7%	34.3%	13.3%
Yellow Time (s)	3.0	3.5	3.0	3.5	3.0	5.0	3.0	3.0	5.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.5	4.0	4.5	4.0	6.0	4.0	4.0	6.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	None	Min	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 119.4
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 28: Euclid Av. (SR-83) & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	213	322	109	226	941	418	178	1235	68	280	1273	483
Future Volume (veh/h)	213	322	109	226	941	418	178	1235	68	280	1273	483
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1900	1900	1800	1900	1900	1800	1900	1900	1700	1900	1900
Adj Flow Rate, veh/h	217	329	102	231	960	391	182	1260	57	286	1299	364
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	268	1024	312	145	942	380	145	1076	616	266	1076	611
Arrive On Green	0.09	0.38	0.38	0.08	0.38	0.38	0.08	0.30	0.30	0.08	0.30	0.30
Sat Flow, veh/h	3141	2724	831	1714	2511	1012	1714	3610	1610	3141	3610	1590
Grp Volume(v), veh/h	217	216	215	231	687	664	182	1260	57	286	1299	364
Grp Sat Flow(s),veh/h/ln	1570	1805	1750	1714	1805	1718	1714	1805	1610	1570	1805	1590
Q Serve(g_s), s	8.0	10.0	10.3	10.0	44.3	44.3	10.0	35.2	2.7	10.0	35.2	21.6
Cycle Q Clear(g_c), s	8.0	10.0	10.3	10.0	44.3	44.3	10.0	35.2	2.7	10.0	35.2	21.6
Prop In Lane	1.00		0.47	1.00		0.59	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	268	678	658	145	677	644	145	1076	616	266	1076	611
V/C Ratio(X)	0.81	0.32	0.33	1.59	1.01	1.03	1.25	1.17	0.09	1.08	1.21	0.60
Avail Cap(c_a), veh/h	319	708	686	145	677	644	145	1076	616	266	1076	611
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.1	26.1	26.2	54.0	36.9	36.9	54.0	41.4	23.3	54.0	41.4	29.1
Incr Delay (d2), s/veh	10.4	0.3	0.3	296.0	38.4	43.3	158.3	87.0	0.1	76.6	102.1	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	4.2	4.2	16.1	25.6	25.2	10.5	27.6	1.0	6.6	29.8	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.5	26.4	26.5	350.1	75.3	80.2	212.4	128.5	23.4	130.6	143.5	30.7
LnGrp LOS	E	C	C	F	F	F	F	F	C	F	F	C
Approach Vol, veh/h		648			1582			1499			1949	
Approach Delay, s/veh		38.8			117.5			134.7			120.6	
Approach LOS		D			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	41.2	14.0	48.9	14.0	41.2	14.1	48.8
Change Period (Y+Rc), s	4.0	6.0	4.0	4.5	4.0	6.0	4.0	4.5
Max Green Setting (Gmax), s	10.0	35.2	10.0	46.3	10.0	35.2	12.0	44.3
Max Q Clear Time (g_c+I1), s	12.0	37.2	12.0	12.3	12.0	37.2	10.0	46.3
Green Ext Time (p_c), s	0.0	0.0	0.0	2.4	0.0	0.0	0.1	0.0

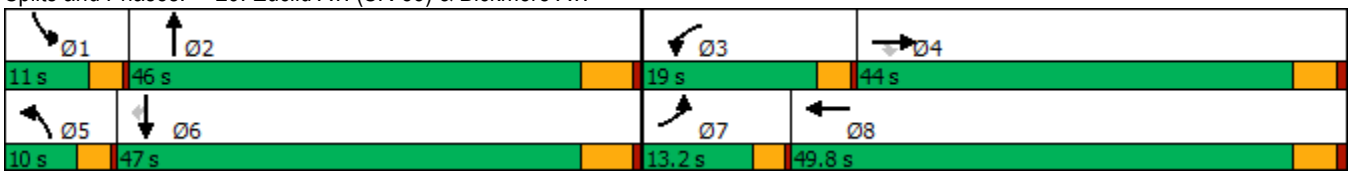
Intersection Summary	
HCM 6th Ctrl Delay	114.1
HCM 6th LOS	F

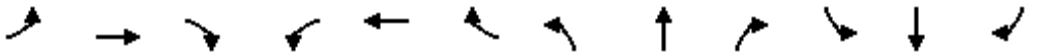
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	81	16	47	241	264	92	1098	107	1265	245
Future Volume (vph)	81	16	47	241	264	92	1098	107	1265	245
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.5	44.0	44.0	8.5	44.0	8.5	26.5	8.5	30.5	30.5
Total Split (s)	13.2	44.0	44.0	19.0	49.8	10.0	46.0	11.0	47.0	47.0
Total Split (%)	11.0%	36.7%	36.7%	15.8%	41.5%	8.3%	38.3%	9.2%	39.2%	39.2%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	3.0	4.5	3.0	4.5	4.5
All-Red Time (s)	0.5	1.0	1.0	0.5	1.0	0.5	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.5	3.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 109
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 29: Euclid Av. (SR-83) & Bickmore Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	16	47	241	264	215	92	1098	40	107	1265	245
Future Volume (veh/h)	81	16	47	241	264	215	92	1098	40	107	1265	245
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	90	18	48	268	293	200	102	1220	37	119	1406	224
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	113	420	356	256	320	219	107	1393	42	124	1441	643
Arrive On Green	0.07	0.22	0.22	0.15	0.30	0.30	0.06	0.39	0.39	0.07	0.40	0.40
Sat Flow, veh/h	1714	1900	1610	1714	1052	718	1714	3577	108	1714	3610	1610
Grp Volume(v), veh/h	90	18	48	268	0	493	102	615	642	119	1406	224
Grp Sat Flow(s),veh/h/ln	1714	1900	1610	1714	0	1771	1714	1805	1880	1714	1805	1610
Q Serve(g_s), s	5.4	0.8	2.5	15.5	0.0	27.9	6.2	32.8	32.9	7.2	39.9	10.1
Cycle Q Clear(g_c), s	5.4	0.8	2.5	15.5	0.0	27.9	6.2	32.8	32.9	7.2	39.9	10.1
Prop In Lane	1.00		1.00	1.00		0.41	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	113	420	356	256	0	539	107	703	732	124	1441	643
V/C Ratio(X)	0.80	0.04	0.13	1.05	0.00	0.92	0.95	0.88	0.88	0.96	0.98	0.35
Avail Cap(c_a), veh/h	160	713	604	256	0	763	107	703	732	124	1441	643
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.9	31.8	32.5	44.2	0.0	34.9	48.6	29.4	29.4	48.1	30.8	21.8
Incr Delay (d2), s/veh	10.9	0.0	0.1	69.7	0.0	10.0	70.9	11.5	11.2	68.7	18.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.3	1.0	11.3	0.0	13.0	4.6	15.0	15.6	5.3	19.0	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.8	31.9	32.6	113.9	0.0	44.8	119.5	40.9	40.6	116.8	48.9	21.9
LnGrp LOS	E	C	C	F	A	D	F	D	D	F	D	C
Approach Vol, veh/h		156			761			1359			1749	
Approach Delay, s/veh		47.6			69.2			46.7			50.0	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	46.0	19.0	28.0	10.0	47.0	10.4	36.6
Change Period (Y+Rc), s	3.5	5.5	3.5	5.0	3.5	5.5	3.5	5.0
Max Green Setting (Gmax), s	7.5	40.5	15.5	39.0	6.5	41.5	9.7	44.8
Max Q Clear Time (g_c+I1), s	9.2	34.9	17.5	4.5	8.2	41.9	7.4	29.9
Green Ext Time (p_c), s	0.0	2.4	0.0	0.1	0.0	0.0	0.0	1.7

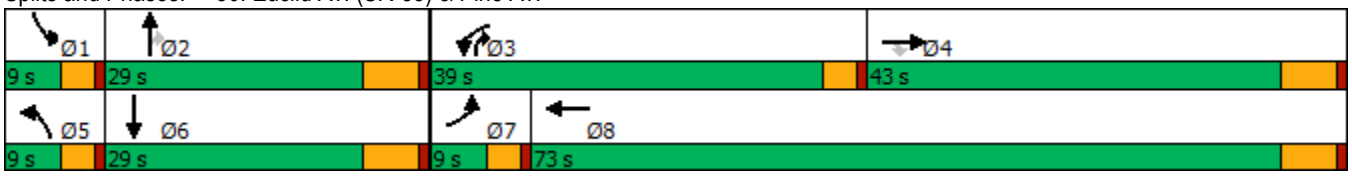
Intersection Summary	
HCM 6th Ctrl Delay	52.4
HCM 6th LOS	D

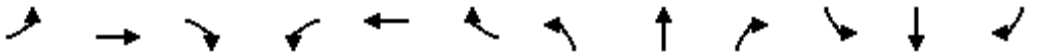
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	84	303	204	1319	980	171	1080	854	163	1032
Future Volume (vph)	84	303	204	1319	980	171	1080	854	163	1032
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4		3	8	5	2	3	1	6
Permitted Phases			4					2		
Detector Phase	7	4	4	3	8	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.0	43.0	43.0	9.0	45.0	9.0	11.0	9.0	9.0	29.0
Total Split (s)	9.0	43.0	43.0	39.0	73.0	9.0	29.0	39.0	9.0	29.0
Total Split (%)	7.5%	35.8%	35.8%	32.5%	60.8%	7.5%	24.2%	32.5%	7.5%	24.2%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0	3.0	3.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	4.0	6.0	4.0	4.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 30: Euclid Av. (SR-83) & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	303	204	1319	980	341	171	1080	854	163	1032	130
Future Volume (veh/h)	84	303	204	1319	980	341	171	1080	854	163	1032	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1700	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	87	312	0	1360	1010	350	176	1113	624	168	1064	130
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	71	586		916	753	261	71	692	771	71	621	76
Arrive On Green	0.04	0.31	0.00	0.29	0.56	0.56	0.04	0.19	0.19	0.04	0.19	0.19
Sat Flow, veh/h	1714	1900	1610	3141	1349	467	1714	3610	1575	1714	3239	395
Grp Volume(v), veh/h	87	312	0	1360	0	1360	176	1113	624	168	593	601
Grp Sat Flow(s),veh/h/ln	1714	1900	1610	1570	0	1816	1714	1805	1575	1714	1805	1829
Q Serve(g_s), s	5.0	16.3	0.0	35.0	0.0	67.0	5.0	23.0	23.0	5.0	23.0	23.0
Cycle Q Clear(g_c), s	5.0	16.3	0.0	35.0	0.0	67.0	5.0	23.0	23.0	5.0	23.0	23.0
Prop In Lane	1.00		1.00	1.00		0.26	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	71	586		916	0	1014	71	692	771	71	346	351
V/C Ratio(X)	1.22	0.53		1.48	0.00	1.34	2.46	1.61	0.81	2.35	1.71	1.72
Avail Cap(c_a), veh/h	71	586		916	0	1014	71	692	771	71	346	351
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.5	34.3	0.0	42.5	0.0	26.5	57.5	48.5	26.5	57.5	48.5	48.5
Incr Delay (d2), s/veh	176.4	1.2	0.0	223.9	0.0	160.3	698.8	280.6	6.0	649.5	332.7	334.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	7.5	0.0	41.3	0.0	70.3	15.9	36.8	15.1	15.0	41.8	42.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	233.9	35.6	0.0	266.4	0.0	186.8	756.3	329.1	32.4	707.0	381.2	382.6
LnGrp LOS	F	D		F	A	F	F	F	C	F	F	F
Approach Vol, veh/h		399	A		2720			1913			1362	
Approach Delay, s/veh		78.8			226.6			271.6			422.0	
Approach LOS		E			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	29.0	39.0	43.0	9.0	29.0	9.0	73.0
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	5.0	23.0	35.0	37.0	5.0	23.0	5.0	67.0
Max Q Clear Time (g_c+I1), s	7.0	25.0	37.0	18.3	7.0	25.0	7.0	69.0
Green Ext Time (p_c), s	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	272.5
HCM 6th LOS	F

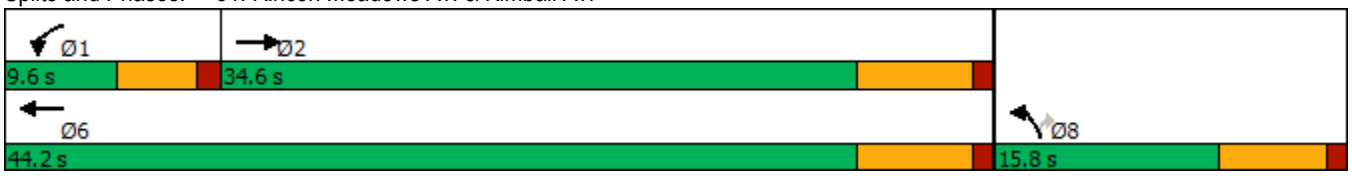
Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	720	85	1217	220	221
Future Volume (vph)	720	85	1217	220	221
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	2	1	6	8	
Permitted Phases					8
Detector Phase	2	1	6	8	8
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	26.2	9.6	16.2	15.8	15.8
Total Split (s)	34.6	9.6	44.2	15.8	15.8
Total Split (%)	57.7%	16.0%	73.7%	26.3%	26.3%
Yellow Time (s)	5.2	3.6	5.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	6.2	5.8	5.8
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	None	None	None	Max	Max

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 31: Rincon Meadows Av. & Kimball Av.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	720	39	85	1217	220	221
Future Volume (veh/h)	720	39	85	1217	220	221
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1800	1900	1800	1900
Adj Flow Rate, veh/h	742	34	88	1255	227	202
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1730	79	111	1203	286	268
Arrive On Green	0.49	0.49	0.06	0.63	0.17	0.17
Sat Flow, veh/h	3610	161	1714	1900	1714	1610
Grp Volume(v), veh/h	381	395	88	1255	227	202
Grp Sat Flow(s),veh/h/ln	1805	1871	1714	1900	1714	1610
Q Serve(g_s), s	8.2	8.2	3.0	38.0	7.6	7.2
Cycle Q Clear(g_c), s	8.2	8.2	3.0	38.0	7.6	7.2
Prop In Lane		0.09	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	888	921	111	1203	286	268
V/C Ratio(X)	0.43	0.43	0.79	1.04	0.79	0.75
Avail Cap(c_a), veh/h	888	921	143	1203	286	268
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.8	9.8	27.7	11.0	24.0	23.8
Incr Delay (d2), s/veh	0.3	0.3	20.5	37.9	20.0	17.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	2.4	1.7	20.3	4.3	3.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.1	10.1	48.2	48.9	44.0	41.4
LnGrp LOS	B	B	D	F	D	D
Approach Vol, veh/h	776			1343	429	
Approach Delay, s/veh	10.1			48.8	42.8	
Approach LOS	B			D	D	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	8.5	35.7				44.2	15.8
Change Period (Y+Rc), s	4.6	6.2				6.2	5.8
Max Green Setting (Gmax), s	5.0	28.4				38.0	10.0
Max Q Clear Time (g_c+I1), s	5.0	10.2				40.0	9.6
Green Ext Time (p_c), s	0.0	4.0				0.0	0.1

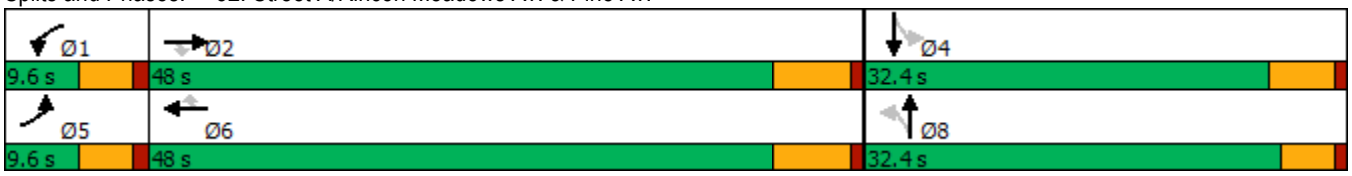
Intersection Summary			
HCM 6th Ctrl Delay		36.0	
HCM 6th LOS		D	

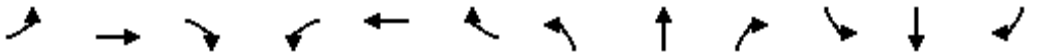
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	135	1003	12	5	1979	280	34	5	134	2
Future Volume (vph)	135	1003	12	5	1979	280	34	5	134	2
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	NA
Protected Phases	5	2		1	6			8		4
Permitted Phases			2			6	8		4	
Detector Phase	5	2	2	1	6	6	8	8	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.2	28.2	9.6	28.2	28.2	31.6	31.6	32.4	32.4
Total Split (s)	9.6	48.0	48.0	9.6	48.0	48.0	32.4	32.4	32.4	32.4
Total Split (%)	10.7%	53.3%	53.3%	10.7%	53.3%	53.3%	36.0%	36.0%	36.0%	36.0%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	5.2	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	6.2	4.6	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 78.5
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 32: Street A/Rincon Meadows Av. & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	1003	12	5	1979	280	34	5	14	134	2	227
Future Volume (veh/h)	135	1003	12	5	1979	280	34	5	14	134	2	227
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	147	1090	13	5	2151	304	37	5	15	146	2	247
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	108	2108	940	11	1904	849	156	86	257	353	3	328
Arrive On Green	0.06	0.58	0.58	0.01	0.53	0.53	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1714	3610	1610	1714	3610	1610	1088	419	1256	1340	13	1599
Grp Volume(v), veh/h	147	1090	13	5	2151	304	37	0	20	146	0	249
Grp Sat Flow(s),veh/h/ln	1714	1805	1610	1714	1805	1610	1088	0	1674	1340	0	1612
Q Serve(g_s), s	5.0	14.3	0.3	0.2	41.8	8.7	2.6	0.0	0.8	7.8	0.0	11.5
Cycle Q Clear(g_c), s	5.0	14.3	0.3	0.2	41.8	8.7	14.1	0.0	0.8	8.6	0.0	11.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.75	1.00		0.99
Lane Grp Cap(c), veh/h	108	2108	940	11	1904	849	156	0	343	353	0	331
V/C Ratio(X)	1.36	0.52	0.01	0.44	1.13	0.36	0.24	0.00	0.06	0.41	0.00	0.75
Avail Cap(c_a), veh/h	108	2108	940	108	1904	849	315	0	587	534	0	549
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.1	9.8	6.9	39.2	18.7	10.9	36.3	0.0	25.3	28.8	0.0	29.6
Incr Delay (d2), s/veh	210.0	0.9	0.0	9.8	65.7	1.2	0.8	0.0	0.1	0.8	0.0	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	4.4	0.1	0.1	30.7	2.8	0.7	0.0	0.3	2.5	0.0	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	247.2	10.7	6.9	49.0	84.4	12.1	37.0	0.0	25.4	29.6	0.0	33.1
LnGrp LOS	F	B	A	D	F	B	D	A	C	C	A	C
Approach Vol, veh/h		1250			2460			57			395	
Approach Delay, s/veh		38.5			75.4			33.0			31.8	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.1	52.5		21.6	9.6	48.0		21.6				
Change Period (Y+Rc), s	4.6	6.2		5.4	4.6	6.2		* 5.4				
Max Green Setting (Gmax), s	5.0	41.8		27.0	5.0	41.8		* 28				
Max Q Clear Time (g_c+I1), s	2.2	16.3		13.5	7.0	43.8		16.1				
Green Ext Time (p_c), s	0.0	7.7		1.6	0.0	0.0		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		59.6	
HCM 6th LOS		E	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	800	46	1101	201	217
Future Volume (vph)	800	46	1101	201	217
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	2	1	6	8	
Permitted Phases					8
Detector Phase	2	1	6	8	8
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	23.2	9.6	16.2	15.4	15.4
Total Split (s)	33.4	9.6	43.0	17.0	17.0
Total Split (%)	55.7%	16.0%	71.7%	28.3%	28.3%
Yellow Time (s)	5.2	3.6	5.2	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	6.2	5.4	5.4
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	None	None	None	Max	Max

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 33: Mill Creek Av. & Kimball Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	800	141	46	1101	201	217
Future Volume (veh/h)	800	141	46	1101	201	217
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1800	1900	1800	1900
Adj Flow Rate, veh/h	870	145	50	1197	218	210
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1516	253	81	1165	331	311
Arrive On Green	0.49	0.49	0.05	0.61	0.19	0.19
Sat Flow, veh/h	3191	516	1714	1900	1714	1610
Grp Volume(v), veh/h	507	508	50	1197	218	210
Grp Sat Flow(s),veh/h/ln	1805	1807	1714	1900	1714	1610
Q Serve(g_s), s	12.0	12.0	1.7	36.8	7.1	7.3
Cycle Q Clear(g_c), s	12.0	12.0	1.7	36.8	7.1	7.3
Prop In Lane		0.29	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	884	885	81	1165	331	311
V/C Ratio(X)	0.57	0.57	0.62	1.03	0.66	0.67
Avail Cap(c_a), veh/h	884	885	143	1165	331	311
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.9	10.9	28.1	11.6	22.4	22.4
Incr Delay (d2), s/veh	0.9	0.9	2.9	33.5	9.8	11.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	3.6	0.7	18.8	3.4	3.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.8	11.8	30.9	45.1	32.2	33.6
LnGrp LOS	B	B	C	F	C	C
Approach Vol, veh/h	1015			1247	428	
Approach Delay, s/veh	11.8			44.6	32.9	
Approach LOS	B			D	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	7.4	35.6				43.0	17.0
Change Period (Y+Rc), s	4.6	6.2				6.2	5.4
Max Green Setting (Gmax), s	5.0	27.2				36.8	11.6
Max Q Clear Time (g_c+I1), s	3.7	14.0				38.8	9.3
Green Ext Time (p_c), s	0.0	4.8				0.0	0.4

Intersection Summary			
HCM 6th Ctrl Delay		30.3	
HCM 6th LOS		C	

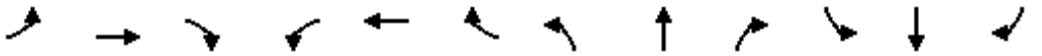
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	45	920	185	109	2104	137	110	16	33	37
Future Volume (vph)	45	920	185	109	2104	137	110	16	33	37
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	NA
Protected Phases	7	4		3	8			2		6
Permitted Phases			4			8	2		6	
Detector Phase	7	4	4	3	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	16.2	9.6	23.2	23.2	15.8	15.8	15.2	15.2
Total Split (s)	9.6	88.4	88.4	15.3	94.1	94.1	16.3	16.3	16.3	16.3
Total Split (%)	8.0%	73.7%	73.7%	12.8%	78.4%	78.4%	13.6%	13.6%	13.6%	13.6%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	5.2	4.8	4.8	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	6.2	5.8	5.8	5.2	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 119.4
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 34: Chino Corona Rd. & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	920	185	109	2104	137	110	16	39	33	37	50
Future Volume (veh/h)	45	920	185	109	2104	137	110	16	39	33	37	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	47	968	0	115	2215	117	116	17	36	35	39	52
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	60	2496		139	1402	1188	107	48	101	137	65	87
Arrive On Green	0.03	0.69	0.00	0.08	0.74	0.74	0.09	0.09	0.09	0.09	0.09	0.09
Sat Flow, veh/h	1714	3610	1610	1714	1900	1610	1256	543	1150	1300	738	984
Grp Volume(v), veh/h	47	968	0	115	2215	117	116	0	53	35	0	91
Grp Sat Flow(s),veh/h/ln	1714	1805	1610	1714	1900	1610	1256	0	1693	1300	0	1723
Q Serve(g_s), s	3.2	13.5	0.0	7.9	87.9	2.4	4.4	0.0	3.5	3.1	0.0	6.1
Cycle Q Clear(g_c), s	3.2	13.5	0.0	7.9	87.9	2.4	10.5	0.0	3.5	6.6	0.0	6.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.68	1.00		0.57
Lane Grp Cap(c), veh/h	60	2496		139	1402	1188	107	0	149	137	0	152
V/C Ratio(X)	0.79	0.39		0.83	1.58	0.10	1.08	0.00	0.36	0.26	0.00	0.60
Avail Cap(c_a), veh/h	72	2496		154	1402	1188	107	0	149	143	0	161
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.1	7.7	0.0	53.9	15.6	4.4	58.6	0.0	51.1	54.2	0.0	52.3
Incr Delay (d2), s/veh	31.0	0.5	0.0	25.0	264.5	0.2	110.5	0.0	1.4	1.0	0.0	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	4.4	0.0	4.2	129.2	0.7	6.5	0.0	1.5	1.0	0.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.1	8.2	0.0	79.0	280.1	4.6	169.1	0.0	52.6	55.2	0.0	57.8
LnGrp LOS	F	A		E	F	A	F	A	D	E	A	E
Approach Vol, veh/h		1015	A		2447			169			126	
Approach Delay, s/veh		11.9			257.5			132.5			57.1	
Approach LOS		B			F			F			E	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		16.3	14.3	88.6		16.3	8.7	94.1				
Change Period (Y+Rc), s		5.8	4.6	6.2		* 5.8	4.6	6.2				
Max Green Setting (Gmax), s		10.5	10.7	82.2		* 11	5.0	87.9				
Max Q Clear Time (g_c+I1), s		12.5	9.9	15.5		8.6	5.2	89.9				
Green Ext Time (p_c), s		0.0	0.0	7.4		0.1	0.0	0.0				

Intersection Summary		
HCM 6th Ctrl Delay	178.8	
HCM 6th LOS	F	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	10	0	102	0	12	10	28	10	0
Future Vol, veh/h	0	0	0	10	0	102	0	12	10	28	10	0
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	12	0	126	0	15	12	35	12	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	0	7.1	7.1	7.6
HCM LOS	-	A	A	A

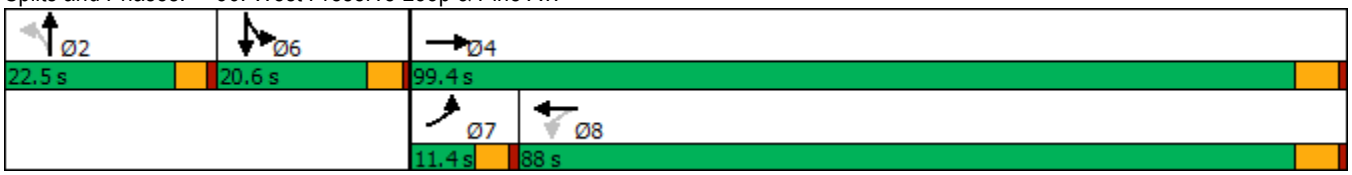
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	9%	74%
Vol Thru, %	55%	100%	0%	26%
Vol Right, %	45%	0%	91%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	22	0	112	38
LT Vol	0	0	10	28
Through Vol	12	0	0	10
RT Vol	10	0	102	0
Lane Flow Rate	27	0	138	47
Geometry Grp	1	1	1	1
Degree of Util (X)	0.029	0	0.134	0.056
Departure Headway (Hd)	3.906	4.135	3.499	4.312
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	914	0	1020	830
Service Time	1.941	2.182	1.536	2.338
HCM Lane V/C Ratio	0.03	0	0.135	0.057
HCM Control Delay	7.1	7.2	7.1	7.6
HCM Lane LOS	A	N	A	A
HCM 95th-tile Q	0.1	0	0.5	0.2

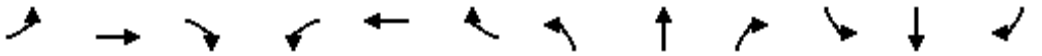
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	42	924	190	2074	123	2	94	2
Future Volume (vph)	42	924	190	2074	123	2	94	2
Turn Type	Prot	NA	Perm	NA	Perm	NA	Split	NA
Protected Phases	7	4		8		2	6	6
Permitted Phases			8		2			
Detector Phase	7	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	22.5	22.5	14.7	14.7
Total Split (s)	11.4	99.4	88.0	88.0	22.5	22.5	20.6	20.6
Total Split (%)	8.0%	69.8%	61.8%	61.8%	15.8%	15.8%	14.5%	14.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	3.5	3.5	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	4.5	4.5	4.7	4.7
Lead/Lag	Lead		Lag	Lag				
Lead-Lag Optimize?	Yes		Yes	Yes				
Recall Mode	None	None	None	None	Min	Min	Min	Min

Intersection Summary

Cycle Length: 142.5
Actuated Cycle Length: 137.6
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 36: West Preserve Loop & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	924	26	190	2074	339	123	2	31	94	2	153
Future Volume (veh/h)	42	924	26	190	2074	339	123	2	31	94	2	153
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	45	983	28	207	2206	351	134	2	34	100	2	161
Peak Hour Factor	0.94	0.94	0.92	0.92	0.94	0.94	0.92	0.92	0.92	0.94	0.92	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	57	2448	70	373	1927	299	162	8	138	197	2	183
Arrive On Green	0.03	0.68	0.68	0.62	0.62	0.62	0.09	0.09	0.09	0.12	0.12	0.12
Sat Flow, veh/h	1714	3585	102	566	3132	485	1810	90	1534	1714	20	1593
Grp Volume(v), veh/h	45	495	516	207	1246	1311	134	0	36	100	0	163
Grp Sat Flow(s),veh/h/ln	1714	1805	1882	566	1805	1813	1810	0	1624	1714	0	1613
Q Serve(g_s), s	3.5	16.0	16.0	33.6	82.2	82.2	9.7	0.0	2.8	7.3	0.0	13.3
Cycle Q Clear(g_c), s	3.5	16.0	16.0	40.6	82.2	82.2	9.7	0.0	2.8	7.3	0.0	13.3
Prop In Lane	1.00		0.05	1.00		0.27	1.00		0.94	1.00		0.99
Lane Grp Cap(c), veh/h	57	1233	1285	373	1110	1115	162	0	146	197	0	186
V/C Ratio(X)	0.79	0.40	0.40	0.56	1.12	1.18	0.83	0.00	0.25	0.51	0.00	0.88
Avail Cap(c_a), veh/h	87	1264	1318	373	1110	1115	244	0	219	204	0	192
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	64.1	9.3	9.3	20.1	25.7	25.7	59.8	0.0	56.6	55.6	0.0	58.2
Incr Delay (d2), s/veh	22.7	0.3	0.3	2.3	67.0	88.8	13.2	0.0	0.9	2.0	0.0	33.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	5.5	5.8	4.3	51.0	57.9	5.1	0.0	1.2	3.3	0.0	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.8	9.6	9.5	22.4	92.7	114.5	73.0	0.0	57.5	57.6	0.0	91.5
LnGrp LOS	F	A	A	C	F	F	E	A	E	E	A	F
Approach Vol, veh/h		1056			2764			170			263	
Approach Delay, s/veh		12.8			97.8			69.7			78.6	
Approach LOS		B			F			E			E	

Timer - Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		16.5		97.1		20.1	9.1	88.0				
Change Period (Y+Rc), s		4.5		5.8		4.7	4.6	5.8				
Max Green Setting (Gmax), s		18.0		93.6		15.9	6.8	82.2				
Max Q Clear Time (g_c+I1), s		11.7		18.0		15.3	5.5	84.2				
Green Ext Time (p_c), s		0.3		11.2		0.1	0.0	0.0				

Intersection Summary												
HCM 6th Ctrl Delay			74.4									
HCM 6th LOS			E									

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	888	94	798	349	273
Future Volume (vph)	888	94	798	349	273
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	2	1	6	8	
Permitted Phases					8
Detector Phase	2	1	6	8	8
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	32.2	9.6	16.2	14.6	14.6
Total Split (s)	32.9	11.0	43.9	16.1	16.1
Total Split (%)	54.8%	18.3%	73.2%	26.8%	26.8%
Yellow Time (s)	5.2	3.6	5.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	6.2	4.6	4.6
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	None	None	None	Max	Max

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 55.2
Natural Cycle: 70
Control Type: Actuated-Uncoordinated

Splits and Phases: 37: Main St. & Kimball Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	888	128	94	798	349	273
Future Volume (veh/h)	888	128	94	798	349	273
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1800	1900	1800	1900
Adj Flow Rate, veh/h	1009	119	107	907	397	238
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1307	154	135	1082	381	358
Arrive On Green	0.40	0.40	0.08	0.57	0.22	0.22
Sat Flow, veh/h	3347	383	1714	1900	1714	1610
Grp Volume(v), veh/h	560	568	107	907	397	238
Grp Sat Flow(s),veh/h/ln	1805	1830	1714	1900	1714	1610
Q Serve(g_s), s	13.9	13.9	3.2	20.4	11.5	7.0
Cycle Q Clear(g_c), s	13.9	13.9	3.2	20.4	11.5	7.0
Prop In Lane		0.21	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	725	735	135	1082	381	358
V/C Ratio(X)	0.77	0.77	0.79	0.84	1.04	0.67
Avail Cap(c_a), veh/h	931	944	212	1383	381	358
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.4	13.4	23.4	9.2	20.1	18.4
Incr Delay (d2), s/veh	3.1	3.0	4.4	3.8	57.7	9.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	4.6	1.2	5.3	10.3	3.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.5	16.5	27.8	13.0	77.8	27.8
LnGrp LOS	B	B	C	B	F	C
Approach Vol, veh/h	1128			1014	635	
Approach Delay, s/veh	16.5			14.5	59.1	
Approach LOS	B			B	E	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	8.7	27.0				35.7	16.1
Change Period (Y+Rc), s	4.6	6.2				6.2	4.6
Max Green Setting (Gmax), s	6.4	26.7				37.7	11.5
Max Q Clear Time (g_c+I1), s	5.2	15.9				22.4	13.5
Green Ext Time (p_c), s	0.0	4.8				5.4	0.0

Intersection Summary			
HCM 6th Ctrl Delay		25.5	
HCM 6th LOS		C	

Intersection	
Int Delay, s/veh	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	608	529	24	17	749	147	7	12	176	176	12	136
Future Vol, veh/h	608	529	24	17	749	147	7	12	176	176	12	136
Conflicting Peds, #/hr	0	0	2	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	310	-	-	120	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	640	557	25	18	788	155	7	13	185	185	13	143

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	943	0	0	584	0	0	2832	2831	293	2467	2766	866
Stage 1	-	-	-	-	-	-	1852	1852	-	902	902	-
Stage 2	-	-	-	-	-	-	980	979	-	1565	1864	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.5	6.9	7.3	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	736	-	-	1001	-	-	10	18	709	~ 18	20	356
Stage 1	-	-	-	-	-	-	78	125	-	335	359	-
Stage 2	-	-	-	-	-	-	303	331	-	~ 119	124	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	736	-	-	999	-	-	~ 6	~ 2	708	~ 1	~ 3	356
Mov Cap-2 Maneuver	-	-	-	-	-	-	9	15	-	~ -25	~	-
Stage 1	-	-	-	-	-	-	10	16	-	~ 44	353	-
Stage 2	-	-	-	-	-	-	172	325	-	~ 2	16	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.4	0.2	$ 513.1	~
HCM LOS			F	-

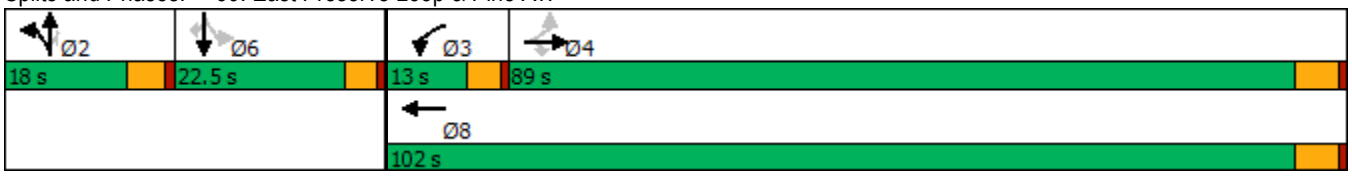
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	107	736	-	-	999	-	-	~
HCM Lane V/C Ratio	1.918	0.87	-	-	0.018	-	-	~
HCM Control Delay (s)	$ 513.1	33.2	-	-	8.7	-	-	~
HCM Lane LOS	F	D	-	-	A	-	-	-
HCM 95th %tile Q(veh)	16.9	10.6	-	-	0.1	-	-	~

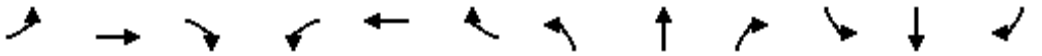
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	20	976	53	121	1836	575	185	400	133	165	192
Future Volume (vph)	20	976	53	121	1836	575	185	400	133	165	192
Turn Type	Perm	NA	Perm	Prot	NA	Split	NA	Perm	Perm	NA	Perm
Protected Phases		4		3	8	2	2			6	
Permitted Phases	4		4					2	6		6
Detector Phase	4	4	4	3	8	2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	35.8	35.8	35.8	9.6	15.8	10.1	10.1	10.1	22.5	22.5	22.5
Total Split (s)	89.0	89.0	89.0	13.0	102.0	18.0	18.0	18.0	22.5	22.5	22.5
Total Split (%)	62.5%	62.5%	62.5%	9.1%	71.6%	12.6%	12.6%	12.6%	15.8%	15.8%	15.8%
Yellow Time (s)	4.8	4.8	4.8	3.6	4.8	4.1	4.1	4.1	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	4.6	5.8	5.1	5.1	5.1	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes							
Recall Mode	None	None	None	None	None	Max	Max	Max	Min	Min	Min

Intersection Summary
Cycle Length: 142.5
Actuated Cycle Length: 134.6
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 39: East Preserve Loop & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	976	53	121	1836	45	575	185	400	133	165	192
Future Volume (veh/h)	20	976	53	121	1836	45	575	185	400	133	165	192
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1800	1900	1900	1700	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	1038	53	129	1953	49	612	201	405	145	179	209
Peak Hour Factor	0.92	0.94	0.94	0.94	0.94	0.92	0.94	0.92	0.94	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	105	1996	890	109	2343	59	305	185	157	246	258	218
Arrive On Green	0.55	0.55	0.55	0.06	0.65	0.65	0.10	0.10	0.10	0.14	0.14	0.14
Sat Flow, veh/h	218	3610	1610	1714	3599	90	3141	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	22	1038	53	129	975	1027	612	201	405	145	179	209
Grp Sat Flow(s),veh/h/ln	218	1805	1610	1714	1805	1884	1570	1900	1610	1810	1900	1610
Q Serve(g_s), s	11.4	23.9	2.0	8.4	54.4	55.5	12.9	12.9	12.9	10.0	11.9	17.1
Cycle Q Clear(g_c), s	53.9	23.9	2.0	8.4	54.4	55.5	12.9	12.9	12.9	10.0	11.9	17.1
Prop In Lane	1.00		1.00	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	105	1996	890	109	1175	1226	305	185	157	246	258	218
V/C Ratio(X)	0.21	0.52	0.06	1.19	0.83	0.84	2.00	1.09	2.59	0.59	0.69	0.96
Avail Cap(c_a), veh/h	121	2264	1010	109	1309	1366	305	185	157	246	258	218
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.4	18.6	13.7	62.1	17.6	17.8	59.9	59.9	59.9	53.9	54.7	56.9
Incr Delay (d2), s/veh	1.4	0.3	0.0	145.6	4.6	4.7	463.1	91.6	732.2	3.7	7.8	48.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	9.3	0.7	7.9	20.8	22.1	24.7	10.9	37.0	4.8	6.3	9.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.8	18.9	13.7	207.8	22.1	22.4	523.0	151.5	792.0	57.6	62.5	105.5
LnGrp LOS	D	B	B	F	C	C	F	F	F	E	E	F
Approach Vol, veh/h		1113			2131			1218			533	
Approach Delay, s/veh		19.2			33.5			551.1			78.0	
Approach LOS		B			C			F			E	

Timer - Assigned Phs		2	3	4		6		8				
Phs Duration (G+Y+Rc), s		18.0	13.0	79.2		22.5		92.2				
Change Period (Y+Rc), s		5.1	4.6	5.8		4.5		5.8				
Max Green Setting (Gmax), s		12.9	8.4	83.2		18.0		96.2				
Max Q Clear Time (g_c+I1), s		14.9	10.4	55.9		19.1		57.5				
Green Ext Time (p_c), s		0.0	0.0	11.8		0.0		28.9				

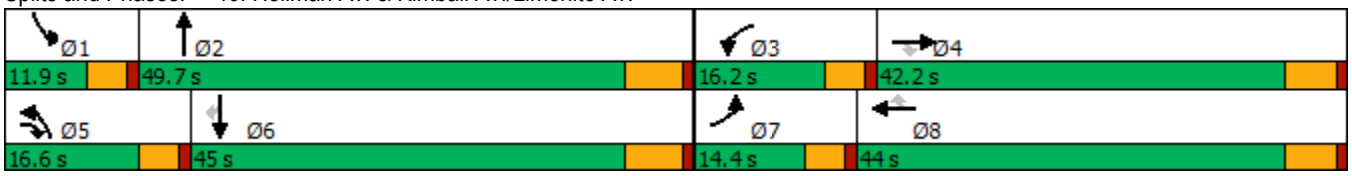
Intersection Summary												
HCM 6th Ctrl Delay			161.3									
HCM 6th LOS			F									

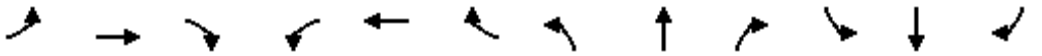
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	55	601	376	331	825	119	163	265	40	45	25
Future Volume (vph)	55	601	376	331	825	119	163	265	40	45	25
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	5	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	37.8	9.6	9.6	37.8	37.8	9.6	43.2	9.6	43.2	43.2
Total Split (s)	14.4	42.2	16.6	16.2	44.0	44.0	16.6	49.7	11.9	45.0	45.0
Total Split (%)	12.0%	35.2%	13.8%	13.5%	36.7%	36.7%	13.8%	41.4%	9.9%	37.5%	37.5%
Yellow Time (s)	3.6	4.8	3.6	3.6	4.8	4.8	3.6	5.2	3.6	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	4.6	5.8	5.8	4.6	6.2	4.6	6.2	6.2
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 97.4
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 40: Hellman Av. & Kimball Av./Limonite Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	601	376	331	825	119	163	265	298	40	45	25
Future Volume (veh/h)	55	601	376	331	825	119	163	265	298	40	45	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1700	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	58	633	396	348	868	125	172	279	314	42	47	26
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	73	694	780	396	1620	723	204	437	390	61	574	256
Arrive On Green	0.04	0.37	0.37	0.13	0.45	0.45	0.12	0.24	0.24	0.04	0.16	0.16
Sat Flow, veh/h	1714	1900	1610	3141	3610	1610	1714	1805	1610	1714	3610	1610
Grp Volume(v), veh/h	58	633	396	348	868	125	172	279	314	42	47	26
Grp Sat Flow(s),veh/h/ln	1714	1900	1610	1570	1805	1610	1714	1805	1610	1714	1805	1610
Q Serve(g_s), s	3.1	29.1	15.5	10.0	16.0	4.3	9.0	12.7	16.9	2.2	1.0	1.3
Cycle Q Clear(g_c), s	3.1	29.1	15.5	10.0	16.0	4.3	9.0	12.7	16.9	2.2	1.0	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	73	694	780	396	1620	723	204	437	390	61	574	256
V/C Ratio(X)	0.79	0.91	0.51	0.88	0.54	0.17	0.84	0.64	0.81	0.68	0.08	0.10
Avail Cap(c_a), veh/h	183	752	829	396	1620	723	224	854	762	136	1524	680
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.6	27.8	16.2	39.5	18.4	15.1	39.7	31.2	32.8	43.8	32.9	33.0
Incr Delay (d2), s/veh	6.9	14.7	0.5	18.9	0.3	0.1	21.2	1.6	4.0	4.9	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	14.8	5.1	4.7	6.1	1.4	4.8	5.3	6.5	1.0	0.4	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	42.4	16.7	58.4	18.7	15.3	60.9	32.8	36.8	48.8	33.0	33.2
LnGrp LOS	D	D	B	E	B	B	E	C	D	D	C	C
Approach Vol, veh/h		1087			1341			765			115	
Approach Delay, s/veh		33.5			28.7			40.7			38.8	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	28.4	16.2	39.4	15.5	20.8	8.5	47.1
Change Period (Y+Rc), s	4.6	6.2	4.6	5.8	4.6	6.2	4.6	5.8
Max Green Setting (Gmax), s	7.3	43.5	11.6	36.4	12.0	38.8	9.8	38.2
Max Q Clear Time (g_c+I1), s	4.2	18.9	12.0	31.1	11.0	3.3	5.1	18.0
Green Ext Time (p_c), s	0.0	3.4	0.0	2.5	0.0	0.3	0.0	5.9

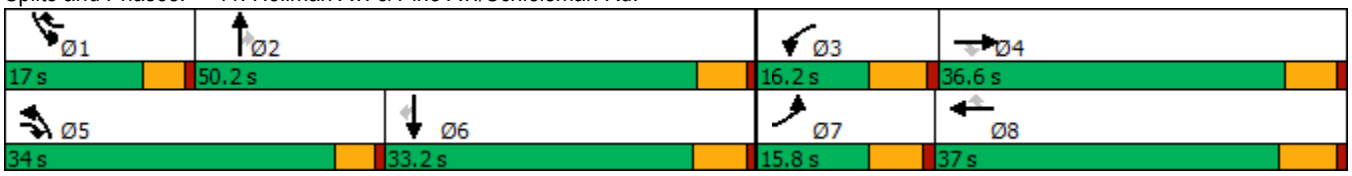
Intersection Summary	
HCM 6th Ctrl Delay	33.4
HCM 6th LOS	C

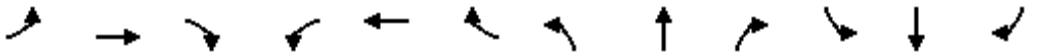
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	243	559	517	107	1134	332	608	499	146	111	166	37
Future Volume (vph)	243	559	517	107	1134	332	608	499	146	111	166	37
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	5	3	8	1	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	34.8	9.6	16.2	35.2	9.6	9.6	32.4	32.4	9.6	32.8	32.8
Total Split (s)	15.8	36.6	34.0	16.2	37.0	17.0	34.0	50.2	50.2	17.0	33.2	33.2
Total Split (%)	13.2%	30.5%	28.3%	13.5%	30.8%	14.2%	28.3%	41.8%	41.8%	14.2%	27.7%	27.7%
Yellow Time (s)	4.8	4.8	3.6	5.2	5.2	3.6	3.6	4.4	4.4	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	6.2	6.2	4.6	4.6	5.4	5.4	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 117.3
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 41: Hellman Av. & Pine Av./Schleisman Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	243	559	517	107	1134	332	608	499	146	111	166	37
Future Volume (veh/h)	243	559	517	107	1134	332	608	499	146	111	166	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1900	1900	1700	1900	1900	1700	1900	1900	1700	1900	1900
Adj Flow Rate, veh/h	248	570	390	109	1157	226	620	509	106	113	169	35
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	275	1331	761	275	1349	503	679	1459	651	164	866	386
Arrive On Green	0.09	0.26	0.26	0.09	0.26	0.26	0.22	0.40	0.40	0.05	0.24	0.24
Sat Flow, veh/h	3141	5187	1610	3141	5187	1610	3141	3610	1610	3141	3610	1610
Grp Volume(v), veh/h	248	570	390	109	1157	226	620	509	106	113	169	35
Grp Sat Flow(s),veh/h/ln	1570	1729	1610	1570	1729	1610	1570	1805	1610	1570	1805	1610
Q Serve(g_s), s	8.9	10.5	19.2	3.7	24.3	12.8	22.0	11.2	4.8	4.0	4.3	1.9
Cycle Q Clear(g_c), s	8.9	10.5	19.2	3.7	24.3	12.8	22.0	11.2	4.8	4.0	4.3	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	275	1331	761	275	1349	503	679	1459	651	164	866	386
V/C Ratio(X)	0.90	0.43	0.51	0.40	0.86	0.45	0.91	0.35	0.16	0.69	0.20	0.09
Avail Cap(c_a), veh/h	275	1399	783	275	1399	518	809	1459	651	341	866	386
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.6	35.5	20.9	49.2	40.2	31.4	43.7	23.6	21.7	53.2	34.6	33.7
Incr Delay (d2), s/veh	30.6	0.3	0.8	1.3	5.6	0.9	12.1	0.7	0.5	1.9	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	4.3	6.8	1.5	10.5	4.9	9.3	4.6	1.8	1.6	1.9	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.2	35.8	21.7	50.6	45.9	32.3	55.8	24.3	22.2	55.2	35.1	34.2
LnGrp LOS	F	D	C	D	D	C	E	C	C	E	D	C
Approach Vol, veh/h		1208			1492			1235			317	
Approach Delay, s/veh		40.8			44.2			39.9			42.2	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	52.0	16.2	35.5	29.3	33.2	15.8	35.9
Change Period (Y+Rc), s	4.6	* 5.8	6.2	* 6.2	4.6	5.8	5.8	6.2
Max Green Setting (Gmax), s	12.4	* 45	10.0	* 31	29.4	27.4	10.0	30.8
Max Q Clear Time (g_c+I1), s	6.0	13.2	5.7	21.2	24.0	6.3	10.9	26.3
Green Ext Time (p_c), s	0.1	5.2	0.1	4.5	0.7	1.3	0.0	3.4

Intersection Summary	
HCM 6th Ctrl Delay	41.8
HCM 6th LOS	D

Notes

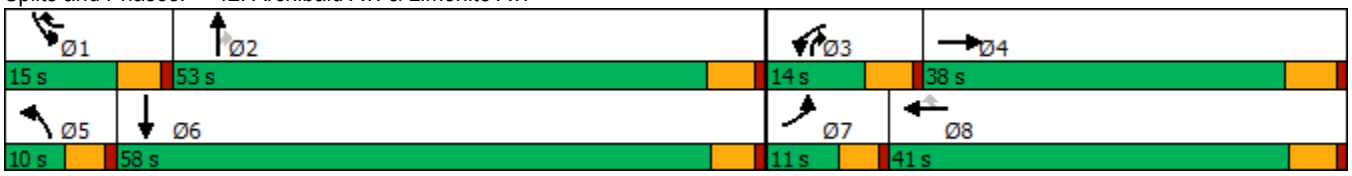
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

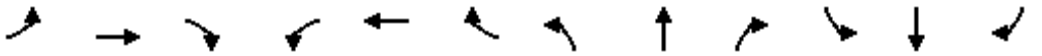
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	215	570	366	818	656	149	1108	372	406	766
Future Volume (vph)	215	570	366	818	656	149	1108	372	406	766
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	3	8	1	5	2	3	1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	1	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	6.0	6.0	6.0	5.0	6.0	6.0	6.0	6.0
Minimum Split (s)	9.6	35.8	11.3	36.3	11.0	9.6	46.3	11.3	11.0	43.0
Total Split (s)	11.0	38.0	14.0	41.0	15.0	10.0	53.0	14.0	15.0	58.0
Total Split (%)	9.2%	31.7%	11.7%	34.2%	12.5%	8.3%	44.2%	11.7%	12.5%	48.3%
Yellow Time (s)	3.6	4.8	4.3	4.3	4.0	3.6	4.3	4.3	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.3	5.3	5.0	4.6	5.3	5.3	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 42: Archibald Av. & Limonite Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	215	570	113	366	818	656	149	1108	372	406	766	193
Future Volume (veh/h)	215	570	113	366	818	656	149	1108	372	406	766	193
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	234	620	123	381	889	627	162	1154	341	423	798	210
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	96	417	83	130	562	599	81	755	756	150	636	167
Arrive On Green	0.05	0.27	0.27	0.07	0.30	0.30	0.04	0.40	0.40	0.08	0.44	0.44
Sat Flow, veh/h	1810	1540	305	1810	1900	1576	1810	1900	1610	1810	1450	382
Grp Volume(v), veh/h	234	0	743	381	889	627	162	1154	341	423	0	1008
Grp Sat Flow(s),veh/h/ln	1810	0	1845	1810	1900	1576	1810	1900	1610	1810	0	1831
Q Serve(g_s), s	6.4	0.0	32.7	8.7	35.7	35.7	5.4	48.0	17.2	10.0	0.0	53.0
Cycle Q Clear(g_c), s	6.4	0.0	32.7	8.7	35.7	35.7	5.4	48.0	17.2	10.0	0.0	53.0
Prop In Lane	1.00		0.17	1.00		1.00	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	96	0	499	130	562	599	81	755	756	150	0	803
V/C Ratio(X)	2.44	0.00	1.49	2.92	1.58	1.05	2.00	1.53	0.45	2.82	0.00	1.25
Avail Cap(c_a), veh/h	96	0	499	130	562	599	81	755	756	150	0	803
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.2	0.0	44.1	56.0	42.5	37.6	57.7	36.4	21.6	55.4	0.0	33.9
Incr Delay (d2), s/veh	678.8	0.0	229.9	886.1	270.9	49.6	492.0	244.6	0.5	838.9	0.0	124.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.0	0.0	46.7	35.9	58.1	24.7	13.4	71.9	6.2	39.3	0.0	49.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	736.0	0.0	274.0	942.1	313.4	87.2	549.7	281.0	22.1	894.3	0.0	158.6
LnGrp LOS	F	A	F	F	F	F	F	F	C	F	A	F
Approach Vol, veh/h		977			1897			1657			1431	
Approach Delay, s/veh		384.6			364.9			254.0			376.1	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	53.3	14.0	38.5	10.0	58.3	11.0	41.5
Change Period (Y+Rc), s	5.0	5.3	5.3	5.8	4.6	* 5.3	4.6	* 5.8
Max Green Setting (Gmax), s	10.0	47.7	8.7	32.2	5.4	* 53	6.4	* 36
Max Q Clear Time (g_c+I1), s	12.0	50.0	10.7	34.7	7.4	55.0	8.4	37.7
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	340.0
HCM 6th LOS	F

Notes

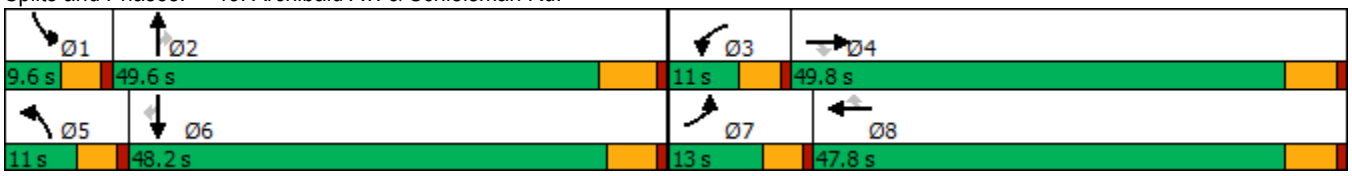
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	574	778	164	496	1067	360	291	938	388	319	696	528
Future Volume (vph)	574	778	164	496	1067	360	291	938	388	319	696	528
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	47.8	47.8	9.6	47.8	47.8	9.6	48.2	48.2	9.6	47.4	47.4
Total Split (s)	13.0	49.8	49.8	11.0	47.8	47.8	11.0	49.6	49.6	9.6	48.2	48.2
Total Split (%)	10.8%	41.5%	41.5%	9.2%	39.8%	39.8%	9.2%	41.3%	41.3%	8.0%	40.2%	40.2%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	5.2	5.2	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	6.2	6.2	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 117.3
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 43: Archibald Av. & Schleisman Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	574	778	164	496	1067	360	291	938	388	319	696	528
Future Volume (veh/h)	574	778	164	496	1067	360	291	938	388	319	696	528
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	638	864	118	551	1186	323	323	1042	358	354	773	465
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	253	1960	598	193	1871	573	193	1775	551	151	1713	525
Arrive On Green	0.07	0.38	0.38	0.05	0.36	0.36	0.05	0.34	0.34	0.04	0.33	0.33
Sat Flow, veh/h	3510	5187	1584	3510	5187	1590	3510	5187	1610	3510	5187	1588
Grp Volume(v), veh/h	638	864	118	551	1186	323	323	1042	358	354	773	465
Grp Sat Flow(s),veh/h/ln	1755	1729	1584	1755	1729	1590	1755	1729	1610	1755	1729	1588
Q Serve(g_s), s	8.4	14.5	5.8	6.4	22.1	19.0	6.4	19.3	21.9	5.0	13.7	32.3
Cycle Q Clear(g_c), s	8.4	14.5	5.8	6.4	22.1	19.0	6.4	19.3	21.9	5.0	13.7	32.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	253	1960	598	193	1871	573	193	1775	551	151	1713	525
V/C Ratio(X)	2.52	0.44	0.20	2.86	0.63	0.56	1.67	0.59	0.65	2.35	0.45	0.89
Avail Cap(c_a), veh/h	253	1960	598	193	1871	573	193	1933	600	151	1906	584
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.0	27.0	24.4	55.0	30.9	29.9	55.0	31.5	32.4	55.7	30.7	36.9
Incr Delay (d2), s/veh	695.5	0.7	0.7	849.4	1.7	4.0	325.1	0.4	2.2	627.1	0.2	14.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	28.1	5.9	2.2	25.5	9.0	7.6	11.4	7.7	8.5	15.3	5.4	14.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	749.5	27.8	25.1	904.4	32.5	33.8	380.1	31.9	34.6	682.8	30.9	51.2
LnGrp LOS	F	C	C	F	C	C	F	C	C	F	C	D
Approach Vol, veh/h		1620			2060			1723			1592	
Approach Delay, s/veh		311.8			265.9			97.7			181.8	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	46.1	11.0	49.8	11.0	44.7	13.0	47.8
Change Period (Y+Rc), s	4.6	6.2	4.6	5.8	4.6	* 6.2	4.6	5.8
Max Green Setting (Gmax), s	5.0	43.4	6.4	44.0	6.4	* 43	8.4	42.0
Max Q Clear Time (g_c+I1), s	7.0	23.9	8.4	16.5	8.4	34.3	10.4	24.1
Green Ext Time (p_c), s	0.0	7.8	0.0	6.4	0.0	4.1	0.0	8.6

Intersection Summary	
HCM 6th Ctrl Delay	216.0
HCM 6th LOS	F

Notes

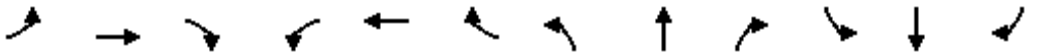
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	WBT	WBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1086	76	891	307	1003	0
Future Volume (vph)	1086	76	891	307	1003	0
Turn Type	NA	Perm	NA	Perm	Perm	NA
Protected Phases	2		6			4
Permitted Phases		2		6	4	
Detector Phase	2	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	22.8	22.8	15.8	15.8
Total Split (s)	23.0	23.0	23.0	23.0	42.0	42.0
Total Split (%)	35.4%	35.4%	35.4%	35.4%	64.6%	64.6%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max	Max	None	None

Intersection Summary
Cycle Length: 65
Actuated Cycle Length: 65
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Central Av. & SR-71 SB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱↱				↰	✣	
Traffic Volume (veh/h)	0	1086	76	0	891	307	0	0	0	1003	0	922
Future Volume (veh/h)	0	1086	76	0	891	307	0	0	0	1003	0	922
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	1900				1900	1900	1900
Adj Flow Rate, veh/h	0	1168	0	0	958	0				937	197	796
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1373		0	1373					1008	183	741
Arrive On Green	0.00	0.26	0.00	0.00	0.26	0.00				0.56	0.56	0.56
Sat Flow, veh/h	0	5358	1610	0	5358	2834				1810	329	1331
Grp Volume(v), veh/h	0	1168	0	0	958	0				937	0	993
Grp Sat Flow(s),veh/h/ln	0	1729	1610	0	1729	1417				1810	0	1660
Q Serve(g_s), s	0.0	13.9	0.0	0.0	10.8	0.0				30.9	0.0	36.2
Cycle Q Clear(g_c), s	0.0	13.9	0.0	0.0	10.8	0.0				30.9	0.0	36.2
Prop In Lane	0.00		1.00	0.00		1.00				1.00		0.80
Lane Grp Cap(c), veh/h	0	1373		0	1373					1008	0	925
V/C Ratio(X)	0.00	0.85		0.00	0.70					0.93	0.00	1.07
Avail Cap(c_a), veh/h	0	1373		0	1373					1008	0	925
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	22.7	0.0	0.0	21.6	0.0				13.2	0.0	14.4
Incr Delay (d2), s/veh	0.0	6.8	0.0	0.0	3.0	0.0				14.4	0.0	51.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.7	0.0	0.0	4.2	0.0				12.6	0.0	22.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	29.5	0.0	0.0	24.5	0.0				27.7	0.0	65.9
LnGrp LOS	A	C		A	C					C	A	F
Approach Vol, veh/h		1168	A		958	A					1930	
Approach Delay, s/veh		29.5			24.5						47.3	
Approach LOS		C			C						D	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	23.0	42.0	23.0
Change Period (Y+Rc), s	5.8	5.8	5.8
Max Green Setting (Gmax), s	17.2	36.2	17.2
Max Q Clear Time (g_c+I1), s	15.9	38.2	12.8
Green Ext Time (p_c), s	1.0	0.0	2.7

Intersection Summary	
HCM 6th Ctrl Delay	36.8
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

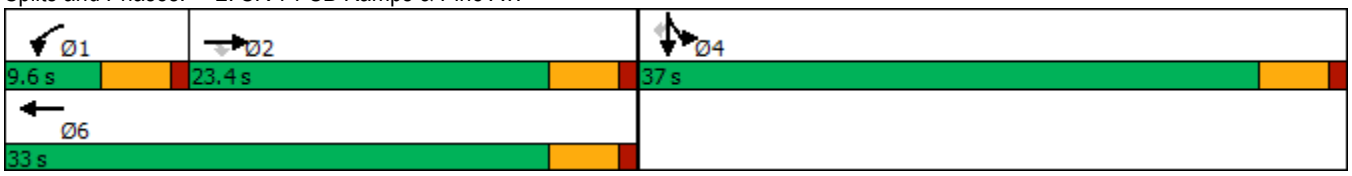
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

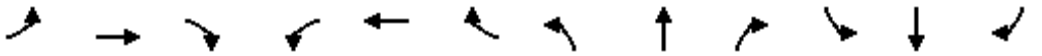
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	443	45	173	519	8	557
Future Volume (vph)	443	45	173	519	8	557
Turn Type	NA	Perm	Prot	NA	NA	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2				4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	21.7	21.7	9.6	21.7	35.7	35.7
Total Split (s)	23.4	23.4	9.6	33.0	37.0	37.0
Total Split (%)	33.4%	33.4%	13.7%	47.1%	52.9%	52.9%
Yellow Time (s)	3.7	3.7	3.6	3.7	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7	4.6	4.7	4.7	4.7
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Max	Max

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: SR-71 SB Ramps & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	443	45	173	519	0	0	0	0	819	8	557
Future Volume (veh/h)	0	443	45	173	519	0	0	0	0	819	8	557
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	466	23	182	546	0				862	8	329
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	507	430	129	1459	0				828	8	743
Arrive On Green	0.00	0.27	0.27	0.07	0.40	0.00				0.46	0.46	0.46
Sat Flow, veh/h	0	1900	1610	1810	3705	0				1794	17	1610
Grp Volume(v), veh/h	0	466	23	182	546	0				870	0	329
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	16.7	0.7	5.0	7.4	0.0				32.3	0.0	9.7
Cycle Q Clear(g_c), s	0.0	16.7	0.7	5.0	7.4	0.0				32.3	0.0	9.7
Prop In Lane	0.00		1.00	1.00		0.00				0.99		1.00
Lane Grp Cap(c), veh/h	0	507	430	129	1459	0				836	0	743
V/C Ratio(X)	0.00	0.92	0.05	1.41	0.37	0.00				1.04	0.00	0.44
Avail Cap(c_a), veh/h	0	508	430	129	1460	0				836	0	743
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	24.9	19.1	32.5	14.6	0.0				18.8	0.0	12.8
Incr Delay (d2), s/veh	0.0	22.1	0.1	223.0	0.2	0.0				42.4	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.8	0.3	10.1	2.7	0.0				21.6	0.0	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	47.1	19.1	255.5	14.9	0.0				61.2	0.0	14.7
LnGrp LOS	A	D	B	F	B	A				F	A	B
Approach Vol, veh/h		489			728						1199	
Approach Delay, s/veh		45.7			75.0						48.4	
Approach LOS		D			E						D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.6	23.4		37.0		33.0
Change Period (Y+Rc), s	4.6	* 4.7		* 4.7		* 4.7
Max Green Setting (Gmax), s	5.0	* 19		* 32		* 28
Max Q Clear Time (g_c+I1), s	7.0	18.7		34.3		9.4
Green Ext Time (p_c), s	0.0	0.0		0.0		4.5

Intersection Summary	
HCM 6th Ctrl Delay	55.9
HCM 6th LOS	E

Notes

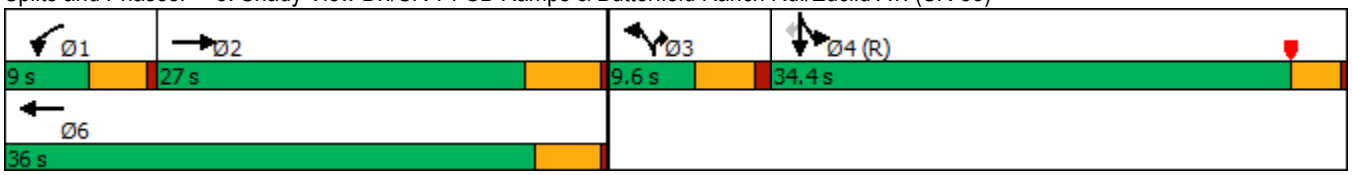
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

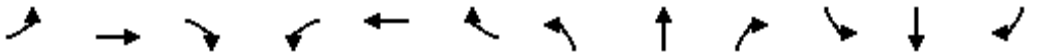
Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	987	170	308	20	169	1040	75	37
Future Volume (vph)	987	170	308	20	169	1040	75	37
Turn Type	NA	Prot	NA	Prot	Prot	Split	NA	Perm
Protected Phases	2	1	6	3	3	4	4	
Permitted Phases								4
Detector Phase	2	1	6	3	3	4	4	4
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	9.0	26.5	9.5	9.5	32.5	32.5	32.5
Total Split (s)	27.0	9.0	36.0	9.6	9.6	34.4	34.4	34.4
Total Split (%)	33.8%	11.3%	45.0%	12.0%	12.0%	43.0%	43.0%	43.0%
Yellow Time (s)	4.5	3.5	4.0	3.5	3.5	3.0	3.0	3.0
All-Red Time (s)	0.5	0.5	0.5	1.0	1.0	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	4.5	4.5	4.5	3.5	3.5	3.5
Lead/Lag	Lag	Lead		Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	None	None	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 4:SBTL, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 3: Shady View Dr./SR-71 SB Ramps & Butterfield Ranch Rd./Euclid Av. (SR-83)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	987	67	170	308	0	20	0	169	1040	75	37
Future Volume (veh/h)	0	987	67	170	308	0	20	0	169	1040	75	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	1900	0	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	1028	58	177	321	0	21	0	117	1139	0	12
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	955	54	113	1399		0	0	0	1832	0	815
Arrive On Green	0.00	0.28	0.28	0.02	0.13	0.00	0.00	0.00	0.00	0.51	0.00	0.51
Sat Flow, veh/h	0	3569	196	1810	3705	0		0		3619	0	1610
Grp Volume(v), veh/h	0	534	552	177	321	0		0.0		1139	0	12
Grp Sat Flow(s),veh/h/ln	0	1805	1865	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	22.0	22.0	5.0	6.4	0.0				18.1	0.0	0.3
Cycle Q Clear(g_c), s	0.0	22.0	22.0	5.0	6.4	0.0				18.1	0.0	0.3
Prop In Lane	0.00		0.11	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	496	513	113	1399					1832	0	815
V/C Ratio(X)	0.00	1.08	1.08	1.57	0.23					0.62	0.00	0.01
Avail Cap(c_a), veh/h	0	496	513	113	1421					1832	0	815
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.48	0.48	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	29.0	29.0	39.2	24.2	0.0				14.2	0.0	9.8
Incr Delay (d2), s/veh	0.0	62.4	61.8	273.9	0.0	0.0				1.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	17.2	17.7	10.8	2.6	0.0				6.6	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	91.4	90.8	313.1	24.2	0.0				15.8	0.0	9.9
LnGrp LOS	A	F	F	F	C					B	A	A
Approach Vol, veh/h		1086			498	A					1151	
Approach Delay, s/veh		91.1			126.9						15.8	
Approach LOS		F			F						B	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.0	27.0		44.0		36.0						
Change Period (Y+Rc), s	4.0	5.0		3.5		* 5						
Max Green Setting (Gmax), s	5.0	22.0		30.9		* 32						
Max Q Clear Time (g_c+I1), s	7.0	24.0		20.1		8.4						
Green Ext Time (p_c), s	0.0	0.0		3.6		1.5						

Intersection Summary												
HCM 6th Ctrl Delay			65.9									
HCM 6th LOS			E									

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

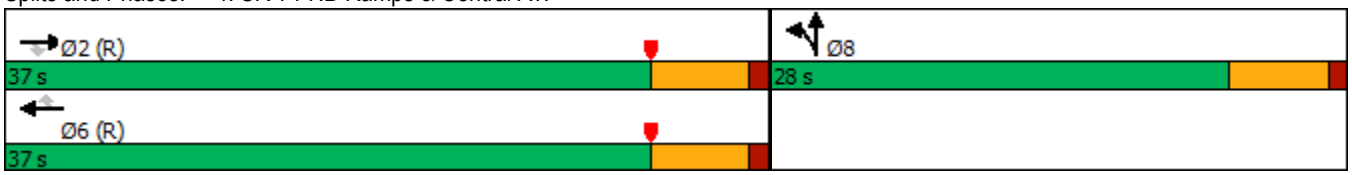
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	1614	475	1038	788	159	0
Future Volume (vph)	1614	475	1038	788	159	0
Turn Type	NA	Perm	NA	Perm	Split	NA
Protected Phases	2		6		8	8
Permitted Phases		2		6		
Detector Phase	2	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	15.8	15.8	22.8	22.8
Total Split (s)	37.0	37.0	37.0	37.0	28.0	28.0
Total Split (%)	56.9%	56.9%	56.9%	56.9%	43.1%	43.1%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None

Intersection Summary

Cycle Length: 65
Actuated Cycle Length: 65
Offset: 63.9 (98%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 4: SR-71 NB Ramps & Central Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱	↰	✣				
Traffic Volume (veh/h)	0	1614	475	0	1038	788	159	0	390	0	0	0
Future Volume (veh/h)	0	1614	475	0	1038	788	159	0	390	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1900	1900	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	0	1664	0	0	1070	0	164	0	221			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	0	3321		0	3321		328	0	292			
Arrive On Green	0.00	0.64	0.00	0.00	0.64	0.00	0.18	0.00	0.18			
Sat Flow, veh/h	0	5358	1610	0	5358	1610	1810	0	1610			
Grp Volume(v), veh/h	0	1664	0	0	1070	0	164	0	221			
Grp Sat Flow(s),veh/h/ln	0	1729	1610	0	1729	1610	1810	0	1610			
Q Serve(g_s), s	0.0	11.0	0.0	0.0	6.1	0.0	5.3	0.0	8.5			
Cycle Q Clear(g_c), s	0.0	11.0	0.0	0.0	6.1	0.0	5.3	0.0	8.5			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3321		0	3321		328	0	292			
V/C Ratio(X)	0.00	0.50		0.00	0.32		0.50	0.00	0.76			
Avail Cap(c_a), veh/h	0	3321		0	3321		618	0	550			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.26	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	6.2	0.0	0.0	5.3	0.0	24.0	0.0	25.3			
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.3	0.0	1.2	0.0	4.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	2.4	0.0	0.0	1.4	0.0	2.1	0.0	3.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	6.3	0.0	0.0	5.6	0.0	25.1	0.0	29.3			
LnGrp LOS	A	A		A	A		C	A	C			
Approach Vol, veh/h		1664	A		1070	A		385				
Approach Delay, s/veh		6.3			5.6			27.5				
Approach LOS		A			A			C				

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		47.4				47.4		17.6				
Change Period (Y+Rc), s		5.8				5.8		5.8				
Max Green Setting (Gmax), s		31.2				31.2		22.2				
Max Q Clear Time (g_c+I1), s		13.0				8.1		10.5				
Green Ext Time (p_c), s		10.7				7.3		1.3				

Intersection Summary		
HCM 6th Ctrl Delay	8.7	
HCM 6th LOS	A	

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	404.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	360	902	0	0	569	556	123	3	252	0	0	0
Future Vol, veh/h	360	902	0	0	569	556	123	3	252	0	0	0
Peak Hour Factor	0.86	0.92	0.86	0.92	0.92	0.92	0.86	0.86	0.92	0.92	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	419	980	0	0	618	604	143	3	274	0	0	0
Number of Lanes	2	1	0	0	1	0	1	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	162.1	811.8	29.1
HCM LOS	F	F	D

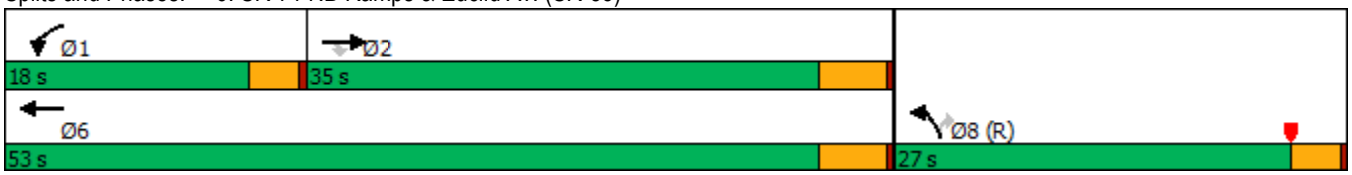
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1
Vol Left, %	100%	5%	100%	100%	0%	0%
Vol Thru, %	0%	1%	0%	0%	100%	51%
Vol Right, %	0%	94%	0%	0%	0%	49%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	111	267	180	180	902	1125
LT Vol	111	12	180	180	0	0
Through Vol	0	3	0	0	902	569
RT Vol	0	252	0	0	0	556
Lane Flow Rate	129	292	209	209	980	1223
Geometry Grp	8	8	7	7	7	8
Degree of Util (X)	0.324	0.643	0.433	0.433	1.427	2.749
Departure Headway (Hd)	12.681	11.435	9.402	9.402	7.078	8.675
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	286	318	385	385	520	428
Service Time	10.381	9.135	7.102	7.102	4.778	6.375
HCM Lane V/C Ratio	0.451	0.918	0.543	0.543	1.885	2.857
HCM Control Delay	21.3	32.6	19.1	19.1	223.2	811.8
HCM Lane LOS	C	D	C	C	F	F
HCM 95th-tile Q	1.4	4.2	2.1	2.1	34.9	95.2

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1025	6	54	1632	181	1272
Future Volume (vph)	1025	6	54	1632	181	1272
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	32.5	32.5	8.5	9.5	8.5	8.5
Total Split (s)	35.0	35.0	18.0	53.0	27.0	27.0
Total Split (%)	43.8%	43.8%	22.5%	66.3%	33.8%	33.8%
Yellow Time (s)	4.0	4.0	3.0	4.0	3.0	3.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	3.5	4.5	3.5	3.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 9.5 (12%), Referenced to phase 4: and 8:NBL, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 6: SR-71 NB Ramps & Euclid Av. (SR-83)





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1025	6	54	1632	181	1272
Future Volume (veh/h)	1025	6	54	1632	181	1272
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1192	0	63	1898	210	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1768		85	2096	1121	
Arrive On Green	0.98	0.00	0.05	0.58	0.32	0.00
Sat Flow, veh/h	3705	1610	1810	3705	3510	1610
Grp Volume(v), veh/h	1192	0	63	1898	210	0
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805	1755	1610
Q Serve(g_s), s	1.6	0.0	2.7	37.2	3.5	0.0
Cycle Q Clear(g_c), s	1.6	0.0	2.7	37.2	3.5	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1768		85	2096	1121	
V/C Ratio(X)	0.67		0.74	0.91	0.19	
Avail Cap(c_a), veh/h	1768		328	2189	1121	
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.4	0.0	37.6	14.8	19.7	0.0
Incr Delay (d2), s/veh	0.1	0.0	8.9	5.7	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	1.3	12.3	1.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.5	0.0	46.6	20.6	20.1	0.0
LnGrp LOS	A		D	C	C	
Approach Vol, veh/h	1192	A		1961	210	A
Approach Delay, s/veh	0.5			21.4	20.1	
Approach LOS	A			C	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	7.3	43.7				51.0	29.0
Change Period (Y+Rc), s	3.5	4.5				4.5	3.5
Max Green Setting (Gmax), s	14.5	30.5				48.5	23.5
Max Q Clear Time (g_c+I1), s	4.7	3.6				39.2	5.5
Green Ext Time (p_c), s	0.0	7.4				7.3	0.3

Intersection Summary			
HCM 6th Ctrl Delay		13.9	
HCM 6th LOS		B	

Notes

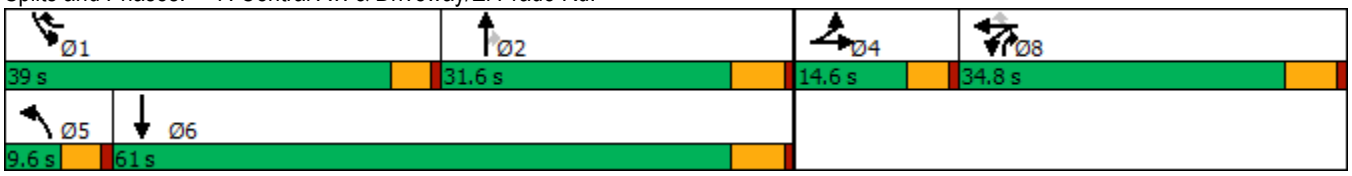
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

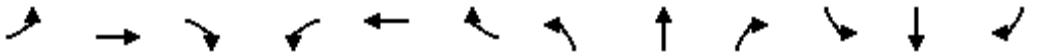
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	22	13	506	3	569	7	898	661	629	949
Future Volume (vph)	22	13	506	3	569	7	898	661	629	949
Turn Type	Split	NA	Split	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	4	4	8	8	1	5	2	8	1	6
Permitted Phases					8			2		
Detector Phase	4	4	8	8	1	5	2	8	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	34.8	34.8	9.6	9.6	27.8	34.8	9.6	24.8
Total Split (s)	14.6	14.6	34.8	34.8	39.0	9.6	31.6	34.8	39.0	61.0
Total Split (%)	12.2%	12.2%	29.0%	29.0%	32.5%	8.0%	26.3%	29.0%	32.5%	50.8%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	4.8	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.8	5.8	4.6	4.6	5.8	5.8	4.6	5.8
Lead/Lag					Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	None	None	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 108.1
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Central Av. & Driveway/El Prado Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	13	9	506	3	569	7	898	661	629	949	21
Future Volume (veh/h)	22	13	9	506	3	569	7	898	661	629	949	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	23	14	4	529	0	338	7	935	349	655	989	20
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	113	93	27	623	0	807	15	866	676	548	2882	58
Arrive On Green	0.07	0.07	0.07	0.18	0.00	0.18	0.01	0.24	0.24	0.32	0.55	0.55
Sat Flow, veh/h	1714	1421	406	3429	0	1608	1714	3610	1600	1714	5233	106
Grp Volume(v), veh/h	23	0	18	529	0	338	7	935	349	655	653	356
Grp Sat Flow(s),veh/h/ln	1714	0	1827	1714	0	1608	1714	1805	1600	1714	1729	1881
Q Serve(g_s), s	1.4	0.0	1.0	16.1	0.0	14.3	0.4	25.8	17.4	34.4	11.3	11.3
Cycle Q Clear(g_c), s	1.4	0.0	1.0	16.1	0.0	14.3	0.4	25.8	17.4	34.4	11.3	11.3
Prop In Lane	1.00		0.22	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	113	0	120	623	0	807	15	866	676	548	1904	1036
V/C Ratio(X)	0.20	0.00	0.15	0.85	0.00	0.42	0.47	1.08	0.52	1.20	0.34	0.34
Avail Cap(c_a), veh/h	159	0	170	924	0	948	80	866	676	548	1904	1036
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.6	0.0	47.4	42.6	0.0	16.9	53.1	40.9	23.0	36.6	13.4	13.4
Incr Delay (d2), s/veh	0.3	0.0	0.2	3.3	0.0	0.1	8.1	54.6	2.8	104.7	0.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.5	6.7	0.0	4.8	0.2	17.5	9.1	29.5	4.1	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.9	0.0	47.7	45.9	0.0	17.1	61.2	95.5	25.8	141.3	13.9	14.3
LnGrp LOS	D	A	D	D	A	B	E	F	C	F	B	B
Approach Vol, veh/h		41			867			1291			1664	
Approach Delay, s/veh		47.8			34.7			76.5			64.1	
Approach LOS		D			C			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	39.0	31.6		11.7	5.5	65.1		25.3				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		5.8				
Max Green Setting (Gmax), s	34.4	25.8		10.0	5.0	55.2		29.0				
Max Q Clear Time (g_c+I1), s	36.4	27.8		3.4	2.4	13.3		18.1				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	7.2		1.3				

Intersection Summary			
HCM 6th Ctrl Delay		61.5	
HCM 6th LOS		E	

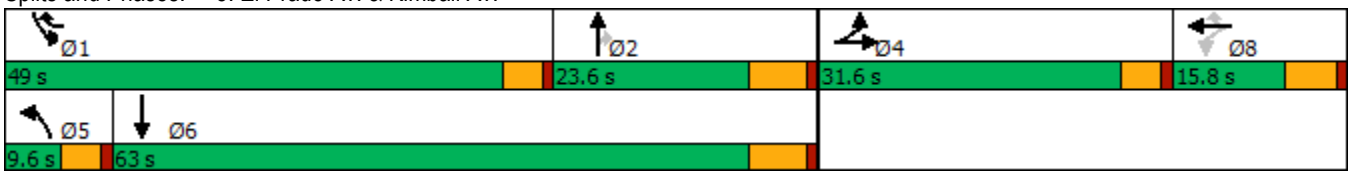
Notes

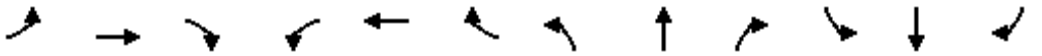
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	36	15	27	7	898	4	283	36	1028	358
Future Volume (vph)	36	15	27	7	898	4	283	36	1028	358
Turn Type	Split	NA	Perm	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	4	4		8	1	5	2		1	6
Permitted Phases			8		8			2		
Detector Phase	4	4	8	8	1	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	15.8	15.8	9.6	9.6	16.2	16.2	9.6	24.2
Total Split (s)	31.6	31.6	15.8	15.8	49.0	9.6	23.6	23.6	49.0	63.0
Total Split (%)	26.3%	26.3%	13.2%	13.2%	40.8%	8.0%	19.7%	19.7%	40.8%	52.5%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		5.8	4.6	4.6	6.2	6.2	4.6	6.2
Lead/Lag					Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 94.2
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: El Prado Av. & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	15	6	27	7	898	4	283	36	1028	358	12
Future Volume (veh/h)	36	15	6	27	7	898	4	283	36	1028	358	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	38	16	4	29	7	510	4	301	34	1094	381	12
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	136	117	29	146	35	866	9	327	277	753	2165	68
Arrive On Green	0.08	0.08	0.08	0.10	0.10	0.10	0.01	0.17	0.17	0.44	0.61	0.61
Sat Flow, veh/h	1714	1467	367	1471	355	1602	1714	1900	1610	1714	3569	112
Grp Volume(v), veh/h	38	0	20	36	0	510	4	301	34	1094	192	201
Grp Sat Flow(s),veh/h/ln	1714	0	1834	1826	0	1602	1714	1900	1610	1714	1805	1877
Q Serve(g_s), s	2.1	0.0	1.0	1.8	0.0	10.0	0.2	15.7	1.8	44.4	4.7	4.8
Cycle Q Clear(g_c), s	2.1	0.0	1.0	1.8	0.0	10.0	0.2	15.7	1.8	44.4	4.7	4.8
Prop In Lane	1.00		0.20	0.81		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	136	0	146	181	0	866	9	327	277	753	1095	1138
V/C Ratio(X)	0.28	0.00	0.14	0.20	0.00	0.59	0.44	0.92	0.12	1.45	0.18	0.18
Avail Cap(c_a), veh/h	458	0	490	181	0	866	85	327	277	753	1095	1138
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.8	0.0	43.3	41.8	0.0	15.8	50.1	41.1	35.4	28.3	8.8	8.8
Incr Delay (d2), s/veh	1.1	0.0	0.4	0.5	0.0	1.1	12.2	33.0	0.9	210.9	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.5	0.8	0.0	7.3	0.1	9.9	0.7	60.2	1.7	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.9	0.0	43.7	42.4	0.0	16.8	62.3	74.1	36.3	239.2	9.1	9.1
LnGrp LOS	D	A	D	D	A	B	E	E	D	F	A	A
Approach Vol, veh/h		58			546			339			1487	
Approach Delay, s/veh		44.5			18.5			70.2			178.4	
Approach LOS		D			B			E			F	

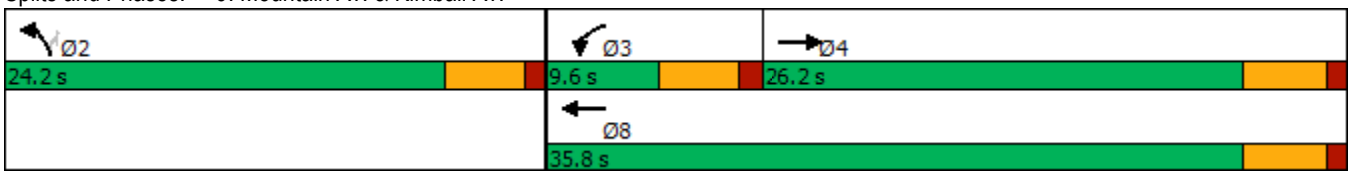
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	49.0	23.6		12.6	5.1	67.5		15.8				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		5.8				
Max Green Setting (Gmax), s	44.4	17.4		27.0	5.0	56.8		10.0				
Max Q Clear Time (g_c+I1), s	46.4	17.7		4.1	2.2	6.8		12.0				
Green Ext Time (p_c), s	0.0	0.0		0.2	0.0	2.1		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		124.2	
HCM 6th LOS		F	

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	1235	56	775	156	105
Future Volume (vph)	1235	56	775	156	105
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	4	3	8	2	
Permitted Phases					2
Detector Phase	4	3	8	2	2
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	24.7	9.6	14.7	23.6	23.6
Total Split (s)	26.2	9.6	35.8	24.2	24.2
Total Split (%)	43.7%	16.0%	59.7%	40.3%	40.3%
Yellow Time (s)	3.7	3.6	3.7	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.6	4.7	4.6	4.6
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	Max	None	Max	None	None

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 52.7
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 9: Mountain Av. & Kimball Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1235	91	56	775	156	105
Future Volume (veh/h)	1235	91	56	775	156	105
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1800	1900	1800	1900
Adj Flow Rate, veh/h	1328	96	60	833	168	94
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1612	116	97	2239	333	313
Arrive On Green	0.47	0.47	0.06	0.62	0.19	0.19
Sat Flow, veh/h	3510	246	1714	3705	1714	1610
Grp Volume(v), veh/h	700	724	60	833	168	94
Grp Sat Flow(s),veh/h/ln	1805	1856	1714	1805	1714	1610
Q Serve(g_s), s	16.8	16.9	1.7	5.7	4.4	2.5
Cycle Q Clear(g_c), s	16.8	16.9	1.7	5.7	4.4	2.5
Prop In Lane		0.13	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	852	876	97	2239	333	313
V/C Ratio(X)	0.82	0.83	0.62	0.37	0.50	0.30
Avail Cap(c_a), veh/h	852	876	171	2239	670	629
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.4	11.5	23.1	4.7	18.0	17.3
Incr Delay (d2), s/veh	8.8	8.8	2.4	0.5	1.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	6.6	0.7	1.1	1.5	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.2	20.2	25.5	5.2	19.2	17.8
LnGrp LOS	C	C	C	A	B	B
Approach Vol, veh/h	1424			893	262	
Approach Delay, s/veh	20.2			6.5	18.7	
Approach LOS	C			A	B	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		14.3	7.4	28.4		35.8
Change Period (Y+Rc), s		4.6	4.6	* 4.7		* 4.7
Max Green Setting (Gmax), s		19.6	5.0	* 22		* 31
Max Q Clear Time (g_c+I1), s		6.4	3.7	18.9		7.7
Green Ext Time (p_c), s		0.6	0.0	1.9		5.5

Intersection Summary	
HCM 6th Ctrl Delay	15.3
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	77	103	85	110	77	52
Future Vol, veh/h	77	103	85	110	77	52
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	92	123	101	131	92	62

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	413	167	0	0	232	0
Stage 1	167	-	-	-	-	-
Stage 2	246	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	599	882	-	-	1348	-
Stage 1	867	-	-	-	-	-
Stage 2	800	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	558	882	-	-	1348	-
Mov Cap-2 Maneuver	616	-	-	-	-	-
Stage 1	867	-	-	-	-	-
Stage 2	746	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.6	0	4.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	616	882	1348	-
HCM Lane V/C Ratio	-	-	0.149	0.139	0.068	-
HCM Control Delay (s)	-	-	11.9	9.7	7.9	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.5	0.5	0.2	-

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	11	32	163	4	12	116
Future Vol, veh/h	11	32	163	4	12	116
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	12	35	177	4	13	126

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	331	179	0	0	181	0
Stage 1	179	-	-	-	-	-
Stage 2	152	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	668	869	-	-	1407	-
Stage 1	857	-	-	-	-	-
Stage 2	881	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	662	869	-	-	1407	-
Mov Cap-2 Maneuver	697	-	-	-	-	-
Stage 1	857	-	-	-	-	-
Stage 2	873	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	0.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	817	1407	-
HCM Lane V/C Ratio	-	-	0.057	0.009	-
HCM Control Delay (s)	-	-	9.7	7.6	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	3.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	95	37	130	37	14	113
Future Vol, veh/h	95	37	130	37	14	113
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	103	40	141	40	15	123

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	314	161	0	0	181	0
Stage 1	161	-	-	-	-	-
Stage 2	153	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	683	889	-	-	1407	-
Stage 1	873	-	-	-	-	-
Stage 2	880	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	675	889	-	-	1407	-
Mov Cap-2 Maneuver	706	-	-	-	-	-
Stage 1	873	-	-	-	-	-
Stage 2	870	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	749	1407	-
HCM Lane V/C Ratio	-	-	0.192	0.011	-
HCM Control Delay (s)	-	-	10.9	7.6	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.7	0	-

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	27	21	146	10	8	200
Future Vol, veh/h	27	21	146	10	8	200
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	29	23	159	11	9	217

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	400	165	0	0	170	0
Stage 1	165	-	-	-	-	-
Stage 2	235	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	610	885	-	-	1420	-
Stage 1	869	-	-	-	-	-
Stage 2	809	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	606	885	-	-	1420	-
Mov Cap-2 Maneuver	656	-	-	-	-	-
Stage 1	869	-	-	-	-	-
Stage 2	804	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.2	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	740	1420	-
HCM Lane V/C Ratio	-	-	0.071	0.006	-
HCM Control Delay (s)	-	-	10.2	7.6	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	14.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	207	19	128	114	43	529
Future Vol, veh/h	207	19	128	114	43	529
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	241	22	149	133	50	615

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	931	216	0	0	282	0
Stage 1	216	-	-	-	-	-
Stage 2	715	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	299	829	-	-	1292	-
Stage 1	825	-	-	-	-	-
Stage 2	488	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	281	829	-	-	1292	-
Mov Cap-2 Maneuver	281	-	-	-	-	-
Stage 1	825	-	-	-	-	-
Stage 2	459	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	64.7	0	0.6
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	298	1292	-
HCM Lane V/C Ratio	-	-	0.882	0.039	-
HCM Control Delay (s)	-	-	64.7	7.9	0
HCM Lane LOS	-	-	F	A	A
HCM 95th %tile Q(veh)	-	-	8	0.1	-

Intersection	
Intersection Delay, s/veh	667.4
Intersection LOS	F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	92	1233	1046	150	564	173
Future Vol, veh/h	92	1233	1046	150	564	173
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	100	1340	1137	163	613	188
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	842.3	707.1	288.6
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	0%	77%
Vol Thru, %	93%	87%	0%
Vol Right, %	0%	13%	23%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1325	1196	737
LT Vol	92	0	564
Through Vol	1233	1046	0
RT Vol	0	150	173
Lane Flow Rate	1440	1300	801
Geometry Grp	1	1	1
Degree of Util (X)	2.805	2.5	1.56
Departure Headway (Hd)	10.738	11.099	9.479
Convergence, Y/N	Yes	Yes	Yes
Cap	360	338	393
Service Time	8.738	9.099	7.479
HCM Lane V/C Ratio	4	3.846	2.038
HCM Control Delay	842.3	707.1	288.6
HCM Lane LOS	F	F	F
HCM 95th-tile Q	80	65.5	33.3

Intersection	
Int Delay, s/veh	1.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	187	0	21	180	0	53
Future Vol, veh/h	187	0	21	180	0	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	203	0	23	196	0	58

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	203	0	445	203
Stage 1	-	-	-	-	203	-
Stage 2	-	-	-	-	242	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1381	-	574	843
Stage 1	-	-	-	-	836	-
Stage 2	-	-	-	-	803	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1381	-	564	843
Mov Cap-2 Maneuver	-	-	-	-	627	-
Stage 1	-	-	-	-	836	-
Stage 2	-	-	-	-	789	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	843	-	-	1381	-
HCM Lane V/C Ratio	0.068	-	-	0.017	-
HCM Control Delay (s)	9.6	-	-	7.7	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	240	0	3	201	0	8
Future Vol, veh/h	240	0	3	201	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	261	0	3	218	0	9

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	261	0	485	261
Stage 1	-	-	-	-	261	-
Stage 2	-	-	-	-	224	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1315	-	545	783
Stage 1	-	-	-	-	787	-
Stage 2	-	-	-	-	818	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1315	-	544	783
Mov Cap-2 Maneuver	-	-	-	-	614	-
Stage 1	-	-	-	-	787	-
Stage 2	-	-	-	-	816	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	783	-	-	1315	-
HCM Lane V/C Ratio	0.011	-	-	0.002	-
HCM Control Delay (s)	9.6	-	-	7.7	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	248	0	3	204	0	8
Future Vol, veh/h	248	0	3	204	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	270	0	3	222	0	9

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	270	0	498	270
Stage 1	-	-	-	-	270	-
Stage 2	-	-	-	-	228	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1305	-	535	774
Stage 1	-	-	-	-	780	-
Stage 2	-	-	-	-	815	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1305	-	534	774
Mov Cap-2 Maneuver	-	-	-	-	607	-
Stage 1	-	-	-	-	780	-
Stage 2	-	-	-	-	813	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	9.7
HCM LOS			A

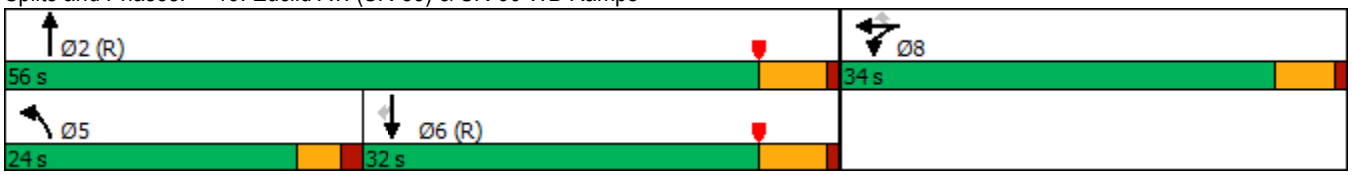
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	774	-	-	1305	-
HCM Lane V/C Ratio	0.011	-	-	0.002	-
HCM Control Delay (s)	9.7	-	-	7.8	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

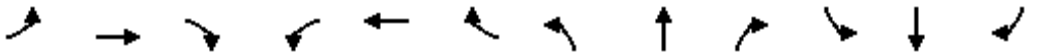
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	779	8	495	613	1335	1246	598
Future Volume (vph)	779	8	495	613	1335	1246	598
Turn Type	Split	NA	Perm	Prot	NA	NA	Perm
Protected Phases	8	8		5	2	6	
Permitted Phases			8				6
Detector Phase	8	8	8	5	2	6	6
Switch Phase							
Minimum Initial (s)	6.0	6.0	6.0	5.0	10.0	10.0	10.0
Minimum Split (s)	11.0	11.0	11.0	9.5	22.5	22.5	22.5
Total Split (s)	34.0	34.0	34.0	24.0	56.0	32.0	32.0
Total Split (%)	37.8%	37.8%	37.8%	26.7%	62.2%	35.6%	35.6%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.5	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.5	5.5	5.5	5.5
Lead/Lag				Lead		Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 63 (70%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 120
Control Type: Actuated-Coordinated

Splits and Phases: 19: Euclid Av. (SR-83) & SR-60 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	779	8	495	613	1335	0	0	1246	598
Future Volume (veh/h)	0	0	0	779	8	495	613	1335	0	0	1246	598
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				918	0	226	639	1391	0	0	1298	418
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				1018	0	453	392	2173	0	0	1210	540
Arrive On Green				0.28	0.00	0.28	0.43	1.00	0.00	0.00	0.34	0.34
Sat Flow, veh/h				3619	0	1608	1810	3705	0	0	3705	1610
Grp Volume(v), veh/h				918	0	226	639	1391	0	0	1298	418
Grp Sat Flow(s),veh/h/ln				1810	0	1608	1810	1805	0	0	1805	1610
Q Serve(g_s), s				22.0	0.0	10.6	19.5	0.0	0.0	0.0	30.2	21.0
Cycle Q Clear(g_c), s				22.0	0.0	10.6	19.5	0.0	0.0	0.0	30.2	21.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1018	0	453	392	2173	0	0	1210	540
V/C Ratio(X)				0.90	0.00	0.50	1.63	0.64	0.00	0.00	1.07	0.77
Avail Cap(c_a), veh/h				1166	0	518	392	2173	0	0	1210	540
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.09	0.09	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				31.1	0.0	27.0	25.5	0.0	0.0	0.0	29.9	26.9
Incr Delay (d2), s/veh				8.3	0.0	0.3	284.5	0.1	0.0	0.0	47.6	10.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				10.0	0.0	3.8	36.4	0.0	0.0	0.0	20.1	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				39.4	0.0	27.4	310.0	0.1	0.0	0.0	77.5	37.2
LnGrp LOS				D	A	C	F	A	A	A	F	D
Approach Vol, veh/h					1144			2030			1716	
Approach Delay, s/veh					37.0			97.7			67.7	
Approach LOS					D			F			E	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	59.7		24.0	35.7		30.3						
Change Period (Y+Rc), s	5.5		4.5	5.5		5.0						
Max Green Setting (Gmax), s	50.5		19.5	26.5		29.0						
Max Q Clear Time (g_c+I1), s	2.0		21.5	32.2		24.0						
Green Ext Time (p_c), s	21.0		0.0	0.0		1.3						

Intersection Summary		
HCM 6th Ctrl Delay		73.0
HCM 6th LOS		E

Notes

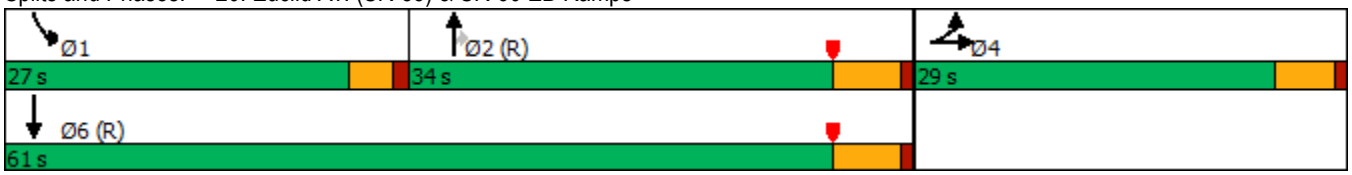
User approved volume balancing among the lanes for turning movement.

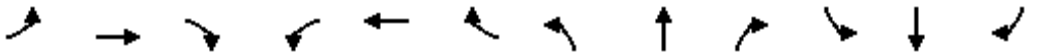
Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	505	4	1444	793	458	1568
Future Volume (vph)	505	4	1444	793	458	1568
Turn Type	Split	NA	NA	Perm	Prot	NA
Protected Phases	4	4	2		1	6
Permitted Phases				2		
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	6.0	6.0	10.0	10.0	5.0	10.0
Minimum Split (s)	11.0	11.0	22.5	22.5	9.0	22.5
Total Split (s)	29.0	29.0	34.0	34.0	27.0	61.0
Total Split (%)	32.2%	32.2%	37.8%	37.8%	30.0%	67.8%
Yellow Time (s)	4.0	4.0	4.5	4.5	3.0	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.5	5.5	4.0	5.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Min	C-Min	None	C-Min

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 20: Euclid Av. (SR-83) & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	505	4	540	0	0	0	0	1444	793	458	1568	0
Future Volume (veh/h)	505	4	540	0	0	0	0	1444	793	458	1568	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	501	23	484				0	1473	615	467	1600	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	483	20	413				0	1143	498	462	2226	0
Arrive On Green	0.27	0.27	0.27				0.00	0.32	0.32	0.51	1.00	0.00
Sat Flow, veh/h	1810	74	1548				0	3705	1571	1810	3705	0
Grp Volume(v), veh/h	501	0	507				0	1473	615	467	1600	0
Grp Sat Flow(s),veh/h/ln	1810	0	1621				0	1805	1571	1810	1805	0
Q Serve(g_s), s	24.0	0.0	24.0				0.0	28.5	28.5	23.0	0.0	0.0
Cycle Q Clear(g_c), s	24.0	0.0	24.0				0.0	28.5	28.5	23.0	0.0	0.0
Prop In Lane	1.00		0.95				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	483	0	432				0	1143	498	462	2226	0
V/C Ratio(X)	1.04	0.00	1.17				0.00	1.29	1.24	1.01	0.72	0.00
Avail Cap(c_a), veh/h	483	0	432				0	1143	498	462	2226	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.09	0.09	0.09	0.09	0.00
Uniform Delay (d), s/veh	33.0	0.0	33.0				0.0	30.7	30.7	22.0	0.0	0.0
Incr Delay (d2), s/veh	51.2	0.0	99.7				0.0	130.5	107.9	15.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.6	0.0	20.7				0.0	32.2	24.9	7.5	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.2	0.0	132.7				0.0	161.2	138.7	37.0	0.2	0.0
LnGrp LOS	F	A	F				A	F	F	F	A	A
Approach Vol, veh/h		1008						2088			2067	
Approach Delay, s/veh		108.6						154.6			8.5	
Approach LOS		F						F			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	27.0	34.0		29.0		61.0
Change Period (Y+Rc), s	4.0	5.5		5.0		5.5
Max Green Setting (Gmax), s	23.0	28.5		24.0		55.5
Max Q Clear Time (g_c+I1), s	25.0	30.5		26.0		2.0
Green Ext Time (p_c), s	0.0	0.0		0.0		27.4

Intersection Summary	
HCM 6th Ctrl Delay	87.1
HCM 6th LOS	F

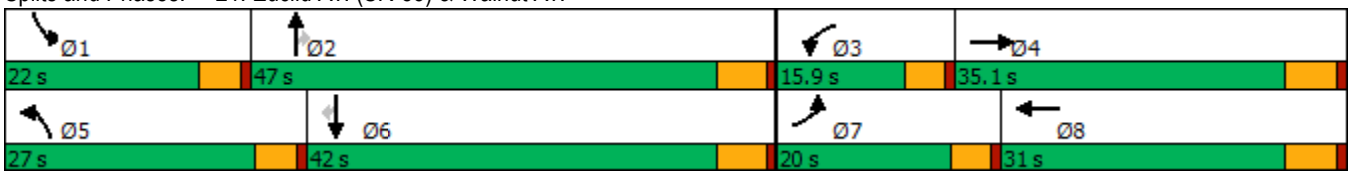
Notes

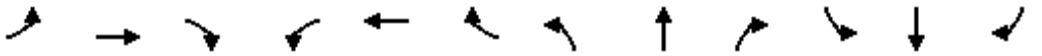
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	179	449	85	449	240	1908	90	320	1555	265
Future Volume (vph)	179	449	85	449	240	1908	90	320	1555	265
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	29.8	9.6	29.8	9.6	27.4	27.4	9.6	29.4	29.4
Total Split (s)	20.0	35.1	15.9	31.0	27.0	47.0	47.0	22.0	42.0	42.0
Total Split (%)	16.7%	29.3%	13.3%	25.8%	22.5%	39.2%	39.2%	18.3%	35.0%	35.0%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	4.4	4.4	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	5.4	5.4	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 116.6
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 21: Euclid Av. (SR-83) & Walnut Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	449	178	85	449	170	240	1908	90	320	1555	265
Future Volume (veh/h)	179	449	178	85	449	170	240	1908	90	320	1555	265
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1700	1900	1900
Adj Flow Rate, veh/h	190	478	166	90	478	155	255	2030	69	340	1654	228
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	217	694	239	112	543	175	282	1894	587	395	1692	525
Arrive On Green	0.13	0.26	0.26	0.07	0.20	0.20	0.16	0.37	0.37	0.13	0.33	0.33
Sat Flow, veh/h	1714	2623	904	1714	2669	859	1714	5187	1608	3141	5187	1609
Grp Volume(v), veh/h	190	328	316	90	322	311	255	2030	69	340	1654	228
Grp Sat Flow(s),veh/h/ln	1714	1805	1722	1714	1805	1723	1714	1729	1608	1570	1729	1609
Q Serve(g_s), s	12.4	18.6	18.8	5.9	19.7	20.0	16.6	41.6	3.2	12.1	35.9	12.7
Cycle Q Clear(g_c), s	12.4	18.6	18.8	5.9	19.7	20.0	16.6	41.6	3.2	12.1	35.9	12.7
Prop In Lane	1.00		0.53	1.00		0.50	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	217	477	455	112	368	351	282	1894	587	395	1692	525
V/C Ratio(X)	0.88	0.69	0.69	0.80	0.88	0.89	0.90	1.07	0.12	0.86	0.98	0.43
Avail Cap(c_a), veh/h	232	477	455	170	399	381	337	1894	587	480	1692	525
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.9	37.7	37.7	52.5	44.0	44.1	46.7	36.2	24.0	48.8	38.0	30.1
Incr Delay (d2), s/veh	26.7	4.1	4.5	8.0	18.2	20.4	21.9	42.9	0.4	11.1	17.1	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	8.4	8.2	2.7	10.3	10.2	8.6	24.2	1.3	5.2	17.2	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.6	41.7	42.3	60.4	62.2	64.4	68.6	79.1	24.4	59.9	55.1	32.7
LnGrp LOS	E	D	D	E	E	E	E	F	C	E	E	C
Approach Vol, veh/h		834			723			2354			2222	
Approach Delay, s/veh		49.7			62.9			76.3			53.5	
Approach LOS		D			E			E			D	

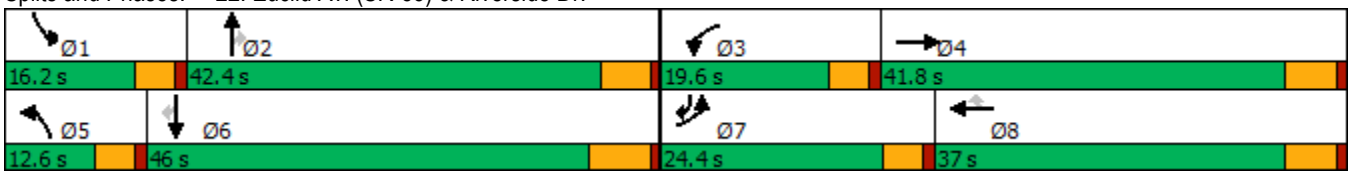
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.9	47.0	12.1	35.9	23.4	42.6	19.0	29.0
Change Period (Y+Rc), s	4.6	5.4	4.6	5.8	4.6	5.4	4.6	5.8
Max Green Setting (Gmax), s	17.4	41.6	11.3	29.3	22.4	36.6	15.4	25.2
Max Q Clear Time (g_c+I1), s	14.1	43.6	7.9	20.8	18.6	37.9	14.4	22.0
Green Ext Time (p_c), s	0.2	0.0	0.0	2.4	0.1	0.0	0.0	1.1

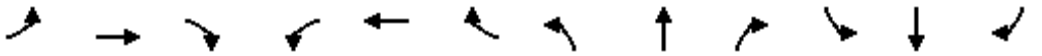
Intersection Summary	
HCM 6th Ctrl Delay	62.9
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	234	721	229	499	78	200	1693	295	169	1334	345
Future Volume (vph)	234	721	229	499	78	200	1693	295	169	1334	345
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4	3	8		5	2		1	6	7
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	25.8	9.6	31.8	31.8	9.6	30.4	30.4	9.6	34.5	9.6
Total Split (s)	24.4	41.8	19.6	37.0	37.0	12.6	42.4	42.4	16.2	46.0	24.4
Total Split (%)	20.3%	34.8%	16.3%	30.8%	30.8%	10.5%	35.3%	35.3%	13.5%	38.3%	20.3%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	None

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Euclid Av. (SR-83) & Riverside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	721	199	229	499	78	200	1693	295	169	1334	345
Future Volume (veh/h)	234	721	199	229	499	78	200	1693	295	169	1334	345
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	244	751	182	239	520	65	208	1764	253	176	1390	268
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	269	439	106	212	955	425	113	1103	492	164	1210	785
Arrive On Green	0.16	0.30	0.30	0.12	0.26	0.26	0.07	0.31	0.31	0.10	0.34	0.34
Sat Flow, veh/h	1714	1477	358	1714	3610	1608	1714	3610	1610	1714	3610	1590
Grp Volume(v), veh/h	244	0	933	239	520	65	208	1764	253	176	1390	268
Grp Sat Flow(s),veh/h/ln	1714	0	1836	1714	1805	1608	1714	1805	1610	1714	1805	1590
Q Serve(g_s), s	16.9	0.0	36.0	15.0	15.0	3.8	8.0	37.0	15.7	11.6	40.6	12.5
Cycle Q Clear(g_c), s	16.9	0.0	36.0	15.0	15.0	3.8	8.0	37.0	15.7	11.6	40.6	12.5
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	269	0	546	212	955	425	113	1103	492	164	1210	785
V/C Ratio(X)	0.91	0.00	1.71	1.13	0.54	0.15	1.84	1.60	0.51	1.07	1.15	0.34
Avail Cap(c_a), veh/h	280	0	546	212	955	425	113	1103	492	164	1210	785
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.2	0.0	42.6	53.1	38.3	34.1	56.5	42.1	34.6	54.8	40.3	18.8
Incr Delay (d2), s/veh	29.5	0.0	327.2	99.6	0.6	0.2	408.7	274.0	3.8	90.6	76.8	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	0.0	65.2	12.2	6.5	1.5	16.2	57.4	6.5	9.1	30.2	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.7	0.0	369.7	152.7	38.9	34.3	465.2	316.0	38.5	145.4	117.1	20.0
LnGrp LOS	E	A	F	F	D	C	F	F	D	F	F	B
Approach Vol, veh/h		1177			824			2225			1834	
Approach Delay, s/veh		309.6			71.5			298.4			105.6	
Approach LOS		F			E			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.2	43.5	19.6	41.8	12.6	47.1	23.6	37.8
Change Period (Y+Rc), s	4.6	* 6.5	4.6	5.8	4.6	6.5	4.6	5.8
Max Green Setting (Gmax), s	11.6	* 37	15.0	36.0	8.0	39.5	19.8	31.2
Max Q Clear Time (g_c+I1), s	13.6	39.0	17.0	38.0	10.0	42.6	18.9	17.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8

Intersection Summary	
HCM 6th Ctrl Delay	211.4
HCM 6th LOS	F

Notes

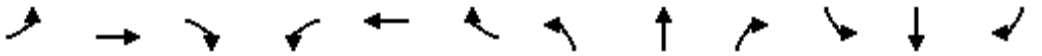
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	134	487	69	137	223	68	1992	278	35	1511	87
Future Volume (vph)	134	487	69	137	223	68	1992	278	35	1511	87
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	28.8	28.8	28.8	33.8	33.8	9.6	24.2	24.2	9.6	31.5	31.5
Total Split (s)	44.0	44.0	44.0	44.0	44.0	12.4	65.0	65.0	11.0	63.6	63.6
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	10.3%	54.2%	54.2%	9.2%	53.0%	53.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	3.6	4.2	4.2	3.6	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8		5.8	4.6	5.2	5.2	4.6	6.5	6.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 117.8
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: Euclid Av. (SR-83) & Chino Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	487	69	137	223	18	68	1992	278	35	1511	87
Future Volume (veh/h)	134	487	69	137	223	18	68	1992	278	35	1511	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	144	524	51	147	240	15	73	2142	228	38	1625	61
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	275	612	519	72	77	4	92	1824	797	52	1739	759
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.05	0.51	0.51	0.03	0.48	0.48
Sat Flow, veh/h	1082	1900	1610	95	238	13	1714	3610	1577	1714	3610	1577
Grp Volume(v), veh/h	144	524	51	402	0	0	73	2142	228	38	1625	61
Grp Sat Flow(s),veh/h/ln	1082	1900	1610	346	0	0	1714	1805	1577	1714	1805	1577
Q Serve(g_s), s	0.0	30.6	2.6	7.6	0.0	0.0	5.0	59.9	9.9	2.6	50.3	2.5
Cycle Q Clear(g_c), s	22.3	30.6	2.6	38.2	0.0	0.0	5.0	59.9	9.9	2.6	50.3	2.5
Prop In Lane	1.00		1.00	0.37		0.04	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	275	612	519	153	0	0	92	1824	797	52	1739	759
V/C Ratio(X)	0.52	0.86	0.10	2.63	0.00	0.00	0.79	1.17	0.29	0.74	0.93	0.08
Avail Cap(c_a), veh/h	275	612	519	153	0	0	113	1824	797	93	1739	759
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.8	37.6	28.1	50.4	0.0	0.0	55.5	29.3	17.0	57.0	29.0	16.6
Incr Delay (d2), s/veh	1.8	11.5	0.1	751.1	0.0	0.0	21.4	84.7	0.9	7.4	10.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	15.5	1.0	36.4	0.0	0.0	2.6	44.1	3.5	1.2	21.9	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.6	49.1	28.2	801.5	0.0	0.0	76.9	114.1	17.9	64.4	39.8	16.8
LnGrp LOS	D	D	C	F	A	A	E	F	B	E	D	B
Approach Vol, veh/h		719			402			2443			1724	
Approach Delay, s/veh		45.1			801.5			104.0			39.5	
Approach LOS		D			F			F			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.2	66.4		44.0	11.0	63.6		44.0				
Change Period (Y+Rc), s	4.6	* 6.5		5.8	4.6	6.5		5.8				
Max Green Setting (Gmax), s	6.4	* 60		38.2	7.8	57.1		38.2				
Max Q Clear Time (g_c+I1), s	4.6	61.9		32.6	7.0	52.3		40.2				
Green Ext Time (p_c), s	0.0	0.0		1.9	0.0	3.7		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		128.0	
HCM 6th LOS		F	

Notes

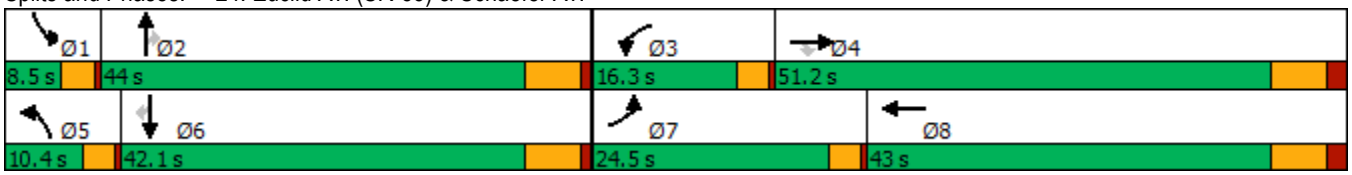
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

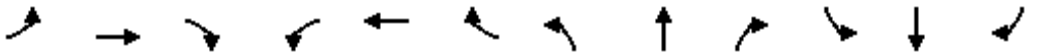
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	487	463	264	95	158	239	1921	100	199	1544	455
Future Volume (vph)	487	463	264	95	158	239	1921	100	199	1544	455
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.5	42.0	42.0	13.5	43.0	8.5	33.0	33.0	8.5	28.0	28.0
Total Split (s)	24.5	51.2	51.2	16.3	43.0	10.4	44.0	44.0	8.5	42.1	42.1
Total Split (%)	20.4%	42.7%	42.7%	13.6%	35.8%	8.7%	36.7%	36.7%	7.1%	35.1%	35.1%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	7.0	7.0	3.5	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 105.9
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Euclid Av. (SR-83) & Schaefer Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	487	463	264	95	158	73	239	1921	100	199	1544	455
Future Volume (veh/h)	487	463	264	95	158	73	239	1921	100	199	1544	455
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	492	468	226	96	160	69	241	1940	83	201	1560	430
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	358	533	451	159	206	89	118	1365	609	85	1297	579
Arrive On Green	0.21	0.28	0.28	0.09	0.16	0.16	0.07	0.38	0.38	0.05	0.36	0.36
Sat Flow, veh/h	1714	1900	1610	1714	1259	543	1714	3610	1610	1714	3610	1610
Grp Volume(v), veh/h	492	468	226	96	0	229	241	1940	83	201	1560	430
Grp Sat Flow(s),veh/h/ln	1714	1900	1610	1714	0	1802	1714	1805	1610	1714	1805	1610
Q Serve(g_s), s	21.0	23.6	11.8	5.4	0.0	12.2	6.9	38.0	3.4	5.0	36.1	23.5
Cycle Q Clear(g_c), s	21.0	23.6	11.8	5.4	0.0	12.2	6.9	38.0	3.4	5.0	36.1	23.5
Prop In Lane	1.00		1.00	1.00		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	358	533	451	159	0	296	118	1365	609	85	1297	579
V/C Ratio(X)	1.37	0.88	0.50	0.60	0.00	0.77	2.05	1.42	0.14	2.36	1.20	0.74
Avail Cap(c_a), veh/h	358	836	708	218	0	646	118	1365	609	85	1297	579
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.7	34.5	30.3	43.8	0.0	40.2	46.8	31.2	20.5	47.7	32.2	28.1
Incr Delay (d2), s/veh	184.7	5.8	0.6	1.4	0.0	3.3	499.4	193.8	0.1	644.9	98.8	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	26.8	11.1	4.4	2.3	0.0	5.5	19.1	51.4	1.2	17.3	31.8	9.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	224.5	40.3	30.9	45.2	0.0	43.5	546.2	225.0	20.6	692.7	131.0	33.3
LnGrp LOS	F	D	C	D	A	D	F	F	C	F	F	C
Approach Vol, veh/h		1186			325			2264			2191	
Approach Delay, s/veh		114.9			44.0			251.7			163.4	
Approach LOS		F			D			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	44.0	12.8	35.2	10.4	42.1	24.5	23.5
Change Period (Y+Rc), s	3.5	6.0	3.5	7.0	3.5	6.0	3.5	7.0
Max Green Setting (Gmax), s	5.0	38.0	12.8	44.2	6.9	36.1	21.0	36.0
Max Q Clear Time (g_c+I1), s	7.0	40.0	7.4	25.6	8.9	38.1	23.0	14.2
Green Ext Time (p_c), s	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.9

Intersection Summary	
HCM 6th Ctrl Delay	180.7
HCM 6th LOS	F

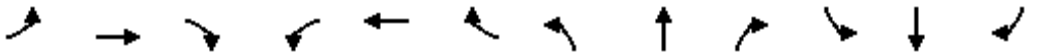
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	334	1195	377	428	723	223	1771	281	201	1611	220
Future Volume (vph)	334	1195	377	428	723	223	1771	281	201	1611	220
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	46.0	46.0	46.0	49.0	49.0	8.5	29.0	29.0	8.5	40.0	40.0
Total Split (s)	52.0	52.0	52.0	52.0	52.0	17.0	54.8	54.8	13.2	51.0	51.0
Total Split (%)	43.3%	43.3%	43.3%	43.3%	43.3%	14.2%	45.7%	45.7%	11.0%	42.5%	42.5%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 25: Euclid Av. (SR-83) & Edison Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	334	1195	377	428	723	340	223	1771	281	201	1611	220
Future Volume (veh/h)	334	1195	377	428	723	340	223	1771	281	201	1611	220
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	352	1258	315	451	761	352	235	1864	288	212	1696	200
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	60	712	604	60	459	212	193	1468	653	139	1354	604
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.11	0.41	0.41	0.08	0.38	0.38
Sat Flow, veh/h	487	1900	1610	314	1224	566	1714	3610	1606	1714	3610	1610
Grp Volume(v), veh/h	352	1258	315	451	0	1113	235	1864	288	212	1696	200
Grp Sat Flow(s),veh/h/ln	487	1900	1610	314	0	1790	1714	1805	1606	1714	1805	1610
Q Serve(g_s), s	0.0	45.0	18.2	0.0	0.0	45.0	13.5	48.8	15.6	9.7	45.0	10.6
Cycle Q Clear(g_c), s	45.0	45.0	18.2	45.0	0.0	45.0	13.5	48.8	15.6	9.7	45.0	10.6
Prop In Lane	1.00		1.00	1.00		0.32	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	713	604	60	0	671	193	1468	653	139	1354	604
V/C Ratio(X)	5.87	1.77	0.52	7.52	0.00	1.66	1.22	1.27	0.44	1.53	1.25	0.33
Avail Cap(c_a), veh/h	60	713	604	60	0	671	193	1468	653	139	1354	604
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.0	37.5	29.1	60.0	0.0	37.5	53.2	35.6	25.7	55.2	37.5	26.8
Incr Delay (d2), s/veh	2225.6	350.3	0.8	2966.7	0.0	302.9	136.0	126.9	0.5	271.4	120.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	38.9	89.0	6.9	51.2	0.0	75.0	12.8	45.4	5.6	14.5	40.8	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	2285.6	387.8	29.9	3026.7	0.0	340.4	189.2	162.5	26.2	326.6	157.5	27.1
LnGrp LOS	F	F	C	F	A	F	F	F	C	F	F	C
Approach Vol, veh/h		1925			1564			2387			2108	
Approach Delay, s/veh		676.2			1115.0			148.7			162.1	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.2	54.8		52.0	17.0	51.0		52.0				
Change Period (Y+Rc), s	3.5	6.0		7.0	3.5	6.0		7.0				
Max Green Setting (Gmax), s	9.7	48.8		45.0	13.5	45.0		45.0				
Max Q Clear Time (g_c+I1), s	11.7	50.8		47.0	15.5	47.0		47.0				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.0		0.0				

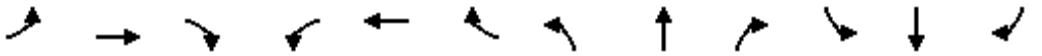
Intersection Summary		
HCM 6th Ctrl Delay		468.7
HCM 6th LOS		F

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	47	202	266	413	157	148	1772	383	260	1794	78
Future Volume (vph)	47	202	266	413	157	148	1772	383	260	1794	78
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	46.8	46.8	46.8	46.8	46.8	8.5	30.7	30.7	8.5	37.7	37.7
Total Split (s)	46.8	46.8	46.8	46.8	46.8	14.0	63.2	63.2	10.0	59.2	59.2
Total Split (%)	39.0%	39.0%	39.0%	39.0%	39.0%	11.7%	52.7%	52.7%	8.3%	49.3%	49.3%
Yellow Time (s)	4.3	4.3	4.3	4.3	4.3	3.0	4.7	4.7	3.0	4.7	4.7
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.8	4.8	3.5	5.7	5.7	3.5	5.7	5.7
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 26: Euclid Av. (SR-83) & Eucalyptus Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	202	266	413	157	237	148	1772	383	260	1794	78
Future Volume (veh/h)	47	202	266	413	157	237	148	1772	383	260	1794	78
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	53	227	183	464	176	263	166	1991	429	292	2016	76
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	176	665	564	306	241	360	150	1730	772	93	1609	703
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.09	0.48	0.48	0.05	0.45	0.45
Sat Flow, veh/h	914	1900	1610	939	688	1027	1714	3610	1610	1714	3610	1577
Grp Volume(v), veh/h	53	227	183	464	0	439	166	1991	429	292	2016	76
Grp Sat Flow(s),veh/h/ln	914	1900	1610	939	0	1715	1714	1805	1610	1714	1805	1577
Q Serve(g_s), s	6.5	10.6	10.0	31.4	0.0	26.8	10.5	57.5	22.7	6.5	53.5	3.4
Cycle Q Clear(g_c), s	33.3	10.6	10.0	42.0	0.0	26.8	10.5	57.5	22.7	6.5	53.5	3.4
Prop In Lane	1.00		1.00	1.00		0.60	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	176	665	564	306	0	600	150	1730	772	93	1609	703
V/C Ratio(X)	0.30	0.34	0.32	1.52	0.00	0.73	1.11	1.15	0.56	3.14	1.25	0.11
Avail Cap(c_a), veh/h	176	665	564	306	0	600	150	1730	772	93	1609	703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.6	28.8	28.6	47.4	0.0	34.1	54.8	31.3	22.2	56.8	33.3	19.4
Incr Delay (d2), s/veh	0.7	0.2	0.2	248.9	0.0	4.3	104.9	75.1	0.9	992.7	119.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	4.8	3.8	30.2	0.0	11.4	8.7	40.3	8.0	28.3	47.6	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.3	29.0	28.8	296.2	0.0	38.4	159.7	106.4	23.1	1049.5	152.2	19.4
LnGrp LOS	D	C	C	F	A	D	F	F	C	F	F	B
Approach Vol, veh/h		463			903			2586			2384	
Approach Delay, s/veh		31.3			170.9			96.0			257.9	
Approach LOS		C			F			F			F	

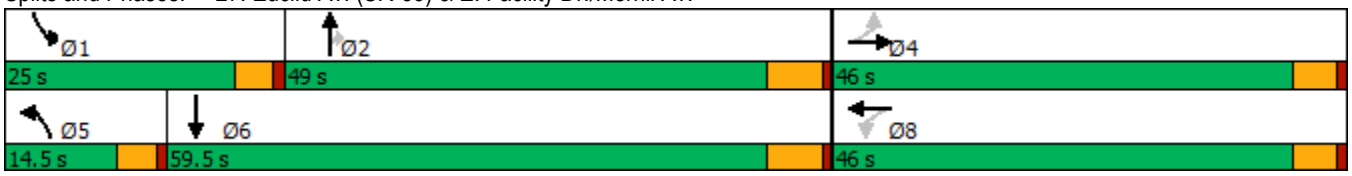
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.0	63.2		46.8	14.0	59.2		46.8				
Change Period (Y+Rc), s	3.5	5.7		4.8	3.5	5.7		4.8				
Max Green Setting (Gmax), s	6.5	57.5		42.0	10.5	53.5		42.0				
Max Q Clear Time (g_c+I1), s	8.5	59.5		35.3	12.5	55.5		44.0				
Green Ext Time (p_c), s	0.0	0.0		1.0	0.0	0.0		0.0				

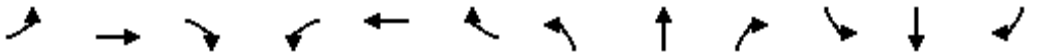
Intersection Summary												
HCM 6th Ctrl Delay			162.8									
HCM 6th LOS			F									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	14	37	633	3	5	1577	801	392	1647
Future Volume (vph)	14	37	633	3	5	1577	801	392	1647
Turn Type	Perm	NA	Perm	NA	Prot	NA	Perm	Prot	NA
Protected Phases		4		8	5	2		1	6
Permitted Phases	4		8				2		
Detector Phase	4	4	8	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	15.0	15.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	10.0	10.0	46.0	46.0	14.5	28.0	28.0	14.5	28.0
Total Split (s)	46.0	46.0	46.0	46.0	14.5	49.0	49.0	25.0	59.5
Total Split (%)	38.3%	38.3%	38.3%	38.3%	12.1%	40.8%	40.8%	20.8%	49.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.5	5.0	5.0	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	4.5	6.0	6.0	4.5	6.0
Lead/Lag					Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 27: Euclid Av. (SR-83) & E. Facility Dr./Merrill Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	37	15	633	3	421	5	1577	801	392	1647	1
Future Volume (veh/h)	14	37	15	633	3	421	5	1577	801	392	1647	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	15	41	15	696	3	453	5	1733	815	431	1810	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	135	359	123	355	1	200	22	1294	577	293	1864	0
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.01	0.36	0.36	0.17	0.52	0.00
Sat Flow, veh/h	289	1051	359	898	4	584	1714	3610	1610	1714	3705	0
Grp Volume(v), veh/h	71	0	0	1152	0	0	5	1733	815	431	1810	0
Grp Sat Flow(s),veh/h/ln	1698	0	0	1486	0	0	1714	1805	1610	1714	1805	0
Q Serve(g_s), s	0.0	0.0	0.0	37.8	0.0	0.0	0.3	43.0	43.0	20.5	58.4	0.0
Cycle Q Clear(g_c), s	3.2	0.0	0.0	41.0	0.0	0.0	0.3	43.0	43.0	20.5	58.4	0.0
Prop In Lane	0.21		0.21	0.60		0.39	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	617	0	0	556	0	0	22	1294	577	293	1864	0
V/C Ratio(X)	0.12	0.00	0.00	2.07	0.00	0.00	0.23	1.34	1.41	1.47	0.97	0.00
Avail Cap(c_a), veh/h	617	0	0	556	0	0	143	1294	577	293	1864	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.1	0.0	0.0	40.9	0.0	0.0	58.6	38.5	38.5	49.8	28.1	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	488.8	0.0	0.0	1.9	158.2	195.8	230.0	14.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.0	91.6	0.0	0.0	0.2	45.9	47.0	27.0	25.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.1	0.0	0.0	529.8	0.0	0.0	60.6	196.7	234.3	279.7	42.7	0.0
LnGrp LOS	C	A	A	F	A	A	E	F	F	F	D	A
Approach Vol, veh/h		71			1152			2553			2241	
Approach Delay, s/veh		27.1			529.8			208.4			88.3	
Approach LOS		C			F			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	25.0	49.0		46.0	6.0	68.0		46.0				
Change Period (Y+Rc), s	4.5	6.0		5.0	4.5	6.0		5.0				
Max Green Setting (Gmax), s	20.5	43.0		41.0	10.0	53.5		41.0				
Max Q Clear Time (g_c+I1), s	22.5	45.0		5.2	2.3	60.4		43.0				
Green Ext Time (p_c), s	0.0	0.0		0.3	0.0	0.0		0.0				

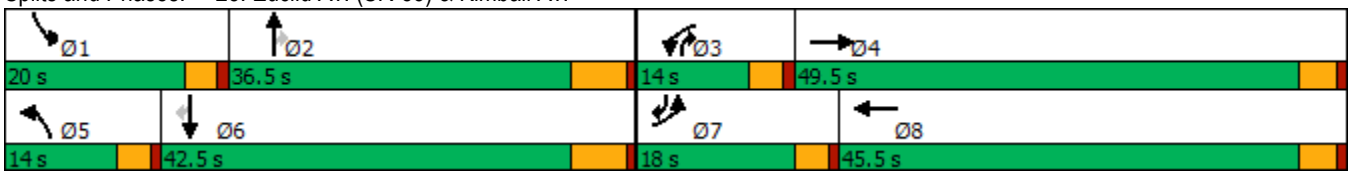
Intersection Summary												
HCM 6th Ctrl Delay			223.1									
HCM 6th LOS			F									

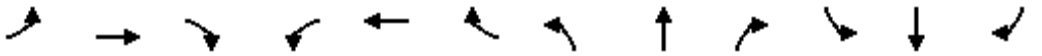
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	591	975	105	435	147	1332	159	541	1419	419
Future Volume (vph)	591	975	105	435	147	1332	159	541	1419	419
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	3	8	5	2	3	1	6	7
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	7
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	14.0	49.5	14.0	45.5	14.0	36.0	14.0	9.0	33.0	14.0
Total Split (s)	18.0	49.5	14.0	45.5	14.0	36.5	14.0	20.0	42.5	18.0
Total Split (%)	15.0%	41.3%	11.7%	37.9%	11.7%	30.4%	11.7%	16.7%	35.4%	15.0%
Yellow Time (s)	3.0	3.5	3.0	3.5	3.0	5.0	3.0	3.0	5.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.5	4.0	4.5	4.0	6.0	4.0	4.0	6.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	None	Min	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 118.9
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 28: Euclid Av. (SR-83) & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	591	975	206	105	435	293	147	1332	159	541	1419	419
Future Volume (veh/h)	591	975	206	105	435	293	147	1332	159	541	1419	419
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1900	1900	1800	1900	1900	1800	1900	1900	1700	1900	1900
Adj Flow Rate, veh/h	609	1005	209	108	448	264	152	1373	149	558	1463	334
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	373	1090	226	141	723	423	145	934	549	426	1118	689
Arrive On Green	0.12	0.37	0.37	0.08	0.33	0.33	0.08	0.26	0.26	0.14	0.31	0.31
Sat Flow, veh/h	3141	2976	617	1714	2192	1282	1714	3610	1610	3141	3610	1609
Grp Volume(v), veh/h	609	609	605	108	368	344	152	1373	149	558	1463	334
Grp Sat Flow(s),veh/h/ln	1570	1805	1788	1714	1805	1669	1714	1805	1610	1570	1805	1609
Q Serve(g_s), s	14.0	38.0	38.2	7.3	20.3	20.5	10.0	30.5	7.9	16.0	36.5	17.7
Cycle Q Clear(g_c), s	14.0	38.0	38.2	7.3	20.3	20.5	10.0	30.5	7.9	16.0	36.5	17.7
Prop In Lane	1.00		0.35	1.00		0.77	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	373	661	655	141	595	551	145	934	549	426	1118	689
V/C Ratio(X)	1.63	0.92	0.92	0.76	0.62	0.62	1.05	1.47	0.27	1.31	1.31	0.48
Avail Cap(c_a), veh/h	373	689	683	145	628	581	145	934	549	426	1118	689
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.9	35.7	35.8	53.0	33.3	33.3	53.9	43.7	28.2	50.9	40.7	24.3
Incr Delay (d2), s/veh	296.6	17.4	18.0	18.6	1.2	1.3	87.2	217.4	0.3	155.0	145.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.7	19.0	19.0	3.8	8.7	8.2	7.6	40.9	3.0	15.2	37.6	6.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	348.6	53.1	53.8	71.6	34.4	34.7	141.1	261.1	28.5	206.0	186.2	24.8
LnGrp LOS	F	D	D	E	C	C	F	F	C	F	F	C
Approach Vol, veh/h		1823			820			1674			2355	
Approach Delay, s/veh		152.0			39.4			229.5			168.0	
Approach LOS		F			D			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	36.5	13.7	47.7	14.0	42.5	18.0	43.4
Change Period (Y+Rc), s	4.0	6.0	4.0	4.5	4.0	6.0	4.0	4.5
Max Green Setting (Gmax), s	16.0	30.5	10.0	45.0	10.0	36.5	14.0	41.0
Max Q Clear Time (g_c+I1), s	18.0	32.5	9.3	40.2	12.0	38.5	16.0	22.5
Green Ext Time (p_c), s	0.0	0.0	0.0	2.9	0.0	0.0	0.0	2.5

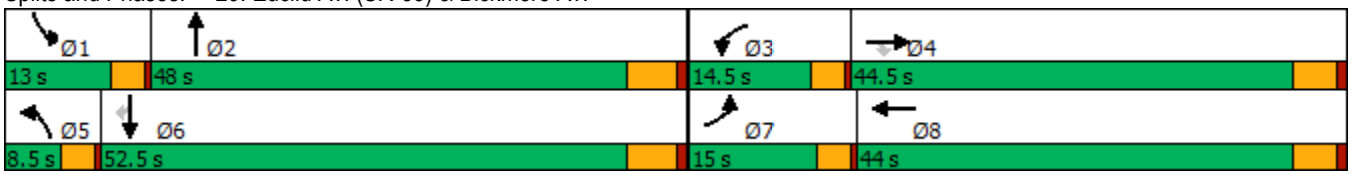
Intersection Summary	
HCM 6th Ctrl Delay	163.3
HCM 6th LOS	F

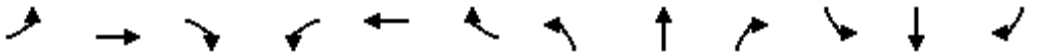
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	219	143	138	70	37	55	1385	187	1468	199
Future Volume (vph)	219	143	138	70	37	55	1385	187	1468	199
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.5	44.0	44.0	8.5	44.0	8.5	26.5	8.5	30.5	30.5
Total Split (s)	15.0	44.5	44.5	14.5	44.0	8.5	48.0	13.0	52.5	52.5
Total Split (%)	12.5%	37.1%	37.1%	12.1%	36.7%	7.1%	40.0%	10.8%	43.8%	43.8%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	3.0	4.5	3.0	4.5	4.5
All-Red Time (s)	0.5	1.0	1.0	0.5	1.0	0.5	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.5	3.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 96
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 29: Euclid Av. (SR-83) & Bickmore Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	219	143	138	70	37	166	55	1385	126	187	1468	199
Future Volume (veh/h)	219	143	138	70	37	166	55	1385	126	187	1468	199
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	238	155	135	76	40	152	60	1505	114	203	1596	184
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	209	392	332	97	49	185	76	1534	116	173	1832	817
Arrive On Green	0.12	0.21	0.21	0.06	0.14	0.14	0.04	0.45	0.45	0.10	0.51	0.51
Sat Flow, veh/h	1714	1900	1610	1714	346	1317	1714	3403	256	1714	3610	1610
Grp Volume(v), veh/h	238	155	135	76	0	192	60	794	825	203	1596	184
Grp Sat Flow(s),veh/h/ln	1714	1900	1610	1714	0	1663	1714	1805	1854	1714	1805	1610
Q Serve(g_s), s	11.5	6.6	6.8	4.1	0.0	10.6	3.3	40.7	41.5	9.5	36.8	6.0
Cycle Q Clear(g_c), s	11.5	6.6	6.8	4.1	0.0	10.6	3.3	40.7	41.5	9.5	36.8	6.0
Prop In Lane	1.00		1.00	1.00		0.79	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	209	392	332	97	0	234	76	814	836	173	1832	817
V/C Ratio(X)	1.14	0.40	0.41	0.79	0.00	0.82	0.79	0.98	0.99	1.17	0.87	0.23
Avail Cap(c_a), veh/h	209	796	675	200	0	688	91	814	836	173	1832	817
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.4	32.3	32.4	43.9	0.0	39.3	44.6	25.4	25.6	42.4	20.5	12.9
Incr Delay (d2), s/veh	104.3	0.2	0.3	5.2	0.0	2.7	26.2	25.6	27.7	123.4	4.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.7	3.0	2.6	1.8	0.0	4.3	1.9	20.5	21.8	9.7	13.9	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	145.7	32.6	32.7	49.1	0.0	42.1	70.8	50.9	53.3	165.8	25.2	13.0
LnGrp LOS	F	C	C	D	A	D	E	D	D	F	C	B
Approach Vol, veh/h		528			268			1679			1983	
Approach Delay, s/veh		83.6			44.1			52.8			38.5	
Approach LOS		F			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	48.0	8.8	24.5	7.7	53.3	15.0	18.3
Change Period (Y+Rc), s	3.5	5.5	3.5	5.0	3.5	5.5	3.5	5.0
Max Green Setting (Gmax), s	9.5	42.5	11.0	39.5	5.0	47.0	11.5	39.0
Max Q Clear Time (g_c+I1), s	11.5	43.5	6.1	8.8	5.3	38.8	13.5	12.6
Green Ext Time (p_c), s	0.0	0.0	0.0	0.7	0.0	4.6	0.0	0.7

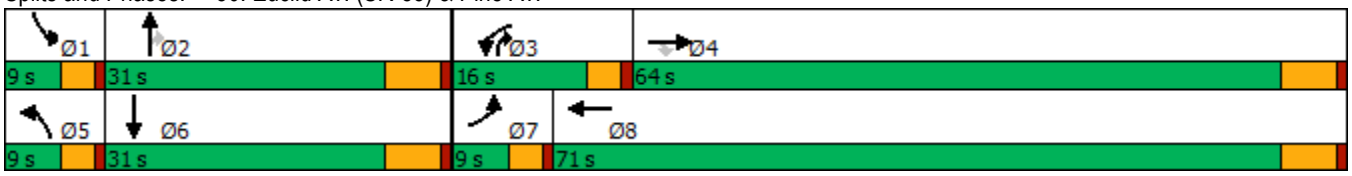
Intersection Summary	
HCM 6th Ctrl Delay	49.5
HCM 6th LOS	D

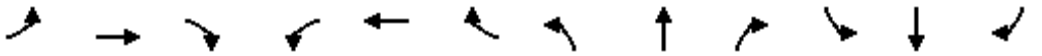
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	115	911	224	712	611	278	1073	1431	391	1203
Future Volume (vph)	115	911	224	712	611	278	1073	1431	391	1203
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4		3	8	5	2	3	1	6
Permitted Phases			4					2		
Detector Phase	7	4	4	3	8	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.0	43.0	43.0	9.0	45.0	9.0	11.0	9.0	9.0	29.0
Total Split (s)	9.0	64.0	64.0	16.0	71.0	9.0	31.0	16.0	9.0	31.0
Total Split (%)	7.5%	53.3%	53.3%	13.3%	59.2%	7.5%	25.8%	13.3%	7.5%	25.8%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0	3.0	3.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	4.0	6.0	4.0	4.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 30: Euclid Av. (SR-83) & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	911	224	712	611	247	278	1073	1431	391	1203	122
Future Volume (veh/h)	115	911	224	712	611	247	278	1073	1431	391	1203	122
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	117	930	0	727	623	250	284	1095	1043	399	1228	124
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	71	918		333	698	280	71	752	496	71	690	69
Arrive On Green	0.04	0.48	0.00	0.10	0.54	0.54	0.04	0.21	0.21	0.04	0.21	0.21
Sat Flow, veh/h	1714	1900	1610	3326	1289	517	1714	3610	1610	1714	3311	334
Grp Volume(v), veh/h	117	930	0	727	0	873	284	1095	1043	399	668	684
Grp Sat Flow(s),veh/h/ln	1714	1900	1610	1663	0	1807	1714	1805	1610	1714	1805	1840
Q Serve(g_s), s	5.0	58.0	0.0	12.0	0.0	51.4	5.0	25.0	25.0	5.0	25.0	25.0
Cycle Q Clear(g_c), s	5.0	58.0	0.0	12.0	0.0	51.4	5.0	25.0	25.0	5.0	25.0	25.0
Prop In Lane	1.00		1.00	1.00		0.29	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	71	918		333	0	979	71	752	496	71	376	383
V/C Ratio(X)	1.64	1.01		2.19	0.00	0.89	3.98	1.46	2.10	5.59	1.78	1.78
Avail Cap(c_a), veh/h	71	918		333	0	979	71	752	496	71	376	383
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.5	31.0	0.0	54.0	0.0	24.4	57.5	47.5	41.5	57.5	47.5	47.5
Incr Delay (d2), s/veh	341.5	32.9	0.0	543.5	0.0	10.6	1372.1	212.6	502.2	2093.9	359.9	363.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	32.6	0.0	29.9	0.0	22.3	29.3	32.8	83.1	43.6	48.2	49.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	399.0	63.9	0.0	597.5	0.0	35.0	1429.6	260.1	543.7	2151.4	407.4	411.0
LnGrp LOS	F	F		F	A	C	F	F	F	F	F	F
Approach Vol, veh/h		1047	A		1600			2422			1751	
Approach Delay, s/veh		101.3			290.6			519.3			806.2	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	31.0	16.0	64.0	9.0	31.0	9.0	71.0
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	5.0	25.0	12.0	58.0	5.0	25.0	5.0	65.0
Max Q Clear Time (g_c+I1), s	7.0	27.0	14.0	60.0	7.0	27.0	7.0	53.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0

Intersection Summary	
HCM 6th Ctrl Delay	475.1
HCM 6th LOS	F

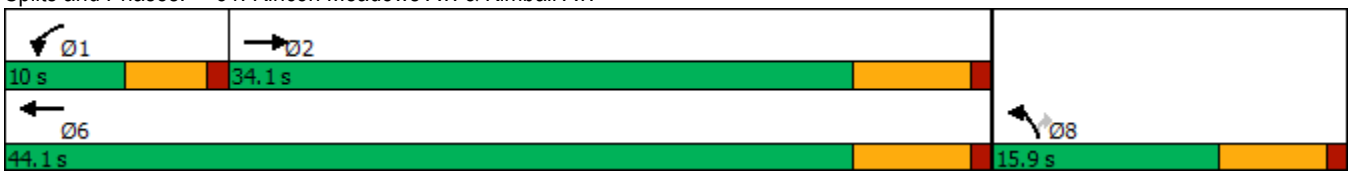
Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	1201	171	648	79	131
Future Volume (vph)	1201	171	648	79	131
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	2	1	6	8	
Permitted Phases					8
Detector Phase	2	1	6	8	8
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	26.2	9.6	16.2	15.8	15.8
Total Split (s)	34.1	10.0	44.1	15.9	15.9
Total Split (%)	56.8%	16.7%	73.5%	26.5%	26.5%
Yellow Time (s)	5.2	3.6	5.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	6.2	5.8	5.8
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	None	None	None	Max	Max

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 59.1
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 31: Rincon Meadows Av. & Kimball Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1201	179	171	648	79	131
Future Volume (veh/h)	1201	179	171	648	79	131
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1800	1900	1800	1900
Adj Flow Rate, veh/h	1251	178	178	675	82	126
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1432	203	158	1182	296	278
Arrive On Green	0.45	0.45	0.09	0.62	0.17	0.17
Sat Flow, veh/h	3270	449	1714	1900	1714	1610
Grp Volume(v), veh/h	708	721	178	675	82	126
Grp Sat Flow(s),veh/h/ln	1805	1819	1714	1900	1714	1610
Q Serve(g_s), s	20.7	21.1	5.4	12.2	2.4	4.1
Cycle Q Clear(g_c), s	20.7	21.1	5.4	12.2	2.4	4.1
Prop In Lane		0.25	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	814	820	158	1182	296	278
V/C Ratio(X)	0.87	0.88	1.12	0.57	0.28	0.45
Avail Cap(c_a), veh/h	861	868	158	1232	296	278
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.5	14.6	26.5	6.5	21.0	21.7
Incr Delay (d2), s/veh	9.2	9.8	108.8	0.6	2.3	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	8.4	6.7	2.7	1.0	1.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.7	24.4	135.4	7.1	23.3	27.0
LnGrp LOS	C	C	F	A	C	C
Approach Vol, veh/h	1429			853	208	
Approach Delay, s/veh	24.1			33.8	25.5	
Approach LOS	C			C	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	10.0	32.6				42.6	15.9
Change Period (Y+Rc), s	4.6	6.2				6.2	5.8
Max Green Setting (Gmax), s	5.4	27.9				37.9	10.1
Max Q Clear Time (g_c+I1), s	7.4	23.1				14.2	6.1
Green Ext Time (p_c), s	0.0	3.3				4.1	0.2

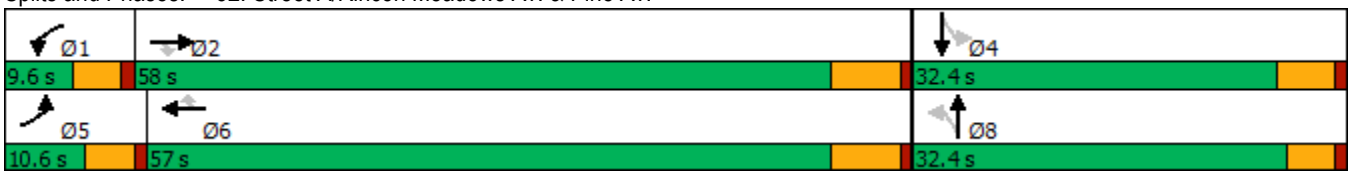
Intersection Summary			
HCM 6th Ctrl Delay		27.5	
HCM 6th LOS		C	

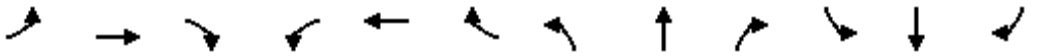
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	256	2091	39	16	1153	264	24	3	336	6
Future Volume (vph)	256	2091	39	16	1153	264	24	3	336	6
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	NA
Protected Phases	5	2		1	6			8		4
Permitted Phases			2			6	8		4	
Detector Phase	5	2	2	1	6	6	8	8	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.2	28.2	9.6	28.2	28.2	31.6	31.6	32.4	32.4
Total Split (s)	10.6	58.0	58.0	9.6	57.0	57.0	32.4	32.4	32.4	32.4
Total Split (%)	10.6%	58.0%	58.0%	9.6%	57.0%	57.0%	32.4%	32.4%	32.4%	32.4%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	5.2	3.6	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	6.2	4.6	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	Max	None	None	None	None	None	None	None

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 94.2
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 32: Street A/Rincon Meadows Av. & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	256	2091	39	16	1153	264	24	3	10	336	6	194
Future Volume (veh/h)	256	2091	39	16	1153	264	24	3	10	336	6	194
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	278	2273	42	17	1253	287	26	3	11	365	7	211
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	106	1931	861	32	1776	792	261	99	365	442	14	437
Arrive On Green	0.06	0.53	0.53	0.02	0.49	0.49	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	1714	3610	1610	1714	3610	1610	1119	357	1308	1347	52	1566
Grp Volume(v), veh/h	278	2273	42	17	1253	287	26	0	14	365	0	218
Grp Sat Flow(s),veh/h/ln	1714	1805	1610	1714	1805	1610	1119	0	1665	1347	0	1618
Q Serve(g_s), s	6.0	51.8	1.2	1.0	26.2	10.7	1.9	0.0	0.6	26.2	0.0	10.9
Cycle Q Clear(g_c), s	6.0	51.8	1.2	1.0	26.2	10.7	12.8	0.0	0.6	26.8	0.0	10.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.79	1.00		0.97
Lane Grp Cap(c), veh/h	106	1931	861	32	1776	792	261	0	464	442	0	451
V/C Ratio(X)	2.62	1.18	0.05	0.52	0.71	0.36	0.10	0.00	0.03	0.83	0.00	0.48
Avail Cap(c_a), veh/h	106	1931	861	89	1894	845	270	0	478	442	0	451
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.4	22.5	10.8	47.1	19.1	15.2	34.4	0.0	25.4	35.1	0.0	29.1
Incr Delay (d2), s/veh	754.2	85.5	0.1	4.8	1.1	0.3	0.2	0.0	0.0	12.2	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	24.7	41.0	0.4	0.4	9.7	3.5	0.5	0.0	0.2	9.7	0.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	799.6	108.0	10.9	51.8	20.3	15.5	34.6	0.0	25.4	47.3	0.0	29.9
LnGrp LOS	F	F	B	D	C	B	C	A	C	D	A	C
Approach Vol, veh/h		2593			1557			40			583	
Approach Delay, s/veh		180.5			19.7			31.4			40.8	
Approach LOS		F			B			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.4	58.0		32.4	10.6	53.8		32.4				
Change Period (Y+Rc), s	4.6	6.2		5.4	4.6	6.2		* 5.4				
Max Green Setting (Gmax), s	5.0	51.8		27.0	6.0	50.8		* 28				
Max Q Clear Time (g_c+I1), s	3.0	53.8		28.8	8.0	28.2		14.8				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	10.0		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		109.8
HCM 6th LOS		F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	1186	64	717	102	106
Future Volume (vph)	1186	64	717	102	106
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	2	1	6	8	
Permitted Phases					8
Detector Phase	2	1	6	8	8
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	23.2	9.6	16.2	15.4	15.4
Total Split (s)	33.4	11.0	44.4	15.6	15.6
Total Split (%)	55.7%	18.3%	74.0%	26.0%	26.0%
Yellow Time (s)	5.2	3.6	5.2	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	6.2	5.4	5.4
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	None	None	None	Max	Max

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 53.2
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 33: Mill Creek Av. & Kimball Av.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1186	146	64	717	102	106
Future Volume (veh/h)	1186	146	64	717	102	106
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1800	1900	1800	1900
Adj Flow Rate, veh/h	1223	143	66	739	105	96
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1471	171	100	1131	325	305
Arrive On Green	0.45	0.45	0.06	0.60	0.19	0.19
Sat Flow, veh/h	3352	380	1714	1900	1714	1610
Grp Volume(v), veh/h	676	690	66	739	105	96
Grp Sat Flow(s),veh/h/ln	1805	1832	1714	1900	1714	1610
Q Serve(g_s), s	17.7	17.9	2.0	13.9	2.8	2.8
Cycle Q Clear(g_c), s	17.7	17.9	2.0	13.9	2.8	2.8
Prop In Lane		0.21	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	815	827	100	1131	325	305
V/C Ratio(X)	0.83	0.83	0.66	0.65	0.32	0.31
Avail Cap(c_a), veh/h	911	925	204	1347	325	305
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.9	13.0	24.8	7.2	18.9	18.8
Incr Delay (d2), s/veh	5.9	6.1	2.8	0.9	2.6	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	6.3	0.8	3.0	1.2	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.9	19.1	27.6	8.1	21.5	21.5
LnGrp LOS	B	B	C	A	C	C
Approach Vol, veh/h	1366			805	201	
Approach Delay, s/veh	19.0			9.7	21.5	
Approach LOS	B			A	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	7.7	30.5				38.3	15.6
Change Period (Y+Rc), s	4.6	6.2				6.2	5.4
Max Green Setting (Gmax), s	6.4	27.2				38.2	10.2
Max Q Clear Time (g_c+I1), s	4.0	19.9				15.9	4.8
Green Ext Time (p_c), s	0.0	4.5				4.6	0.2

Intersection Summary			
HCM 6th Ctrl Delay		16.0	
HCM 6th LOS		B	

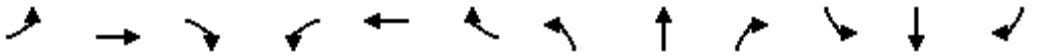
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	43	2340	54	46	1106	37	145	30	36	15
Future Volume (vph)	43	2340	54	46	1106	37	145	30	36	15
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	NA
Protected Phases	7	4		3	8			2		6
Permitted Phases			4			8	2		6	
Detector Phase	7	4	4	3	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	16.2	9.6	23.2	23.2	15.8	15.8	15.2	15.2
Total Split (s)	14.0	87.0	87.0	12.0	85.0	85.0	21.0	21.0	21.0	21.0
Total Split (%)	11.7%	72.5%	72.5%	10.0%	70.8%	70.8%	17.5%	17.5%	17.5%	17.5%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	5.2	4.8	4.8	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	6.2	5.8	5.8	5.2	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 117.4
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 34: Chino Corona Rd. & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	2340	54	46	1106	37	145	30	84	36	15	182
Future Volume (veh/h)	43	2340	54	46	1106	37	145	30	84	36	15	182
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	47	2571	0	51	1215	33	159	33	83	40	16	186
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	60	2479		65	1311	1111	75	64	162	147	17	202
Arrive On Green	0.03	0.69	0.00	0.04	0.69	0.69	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	1714	3610	1610	1714	1900	1610	1136	479	1204	1228	129	1501
Grp Volume(v), veh/h	47	2571	0	51	1215	33	159	0	116	40	0	202
Grp Sat Flow(s),veh/h/ln	1714	1805	1610	1714	1900	1610	1136	0	1683	1228	0	1630
Q Serve(g_s), s	3.2	80.8	0.0	3.5	64.7	0.8	1.4	0.0	7.5	3.7	0.0	14.4
Cycle Q Clear(g_c), s	3.2	80.8	0.0	3.5	64.7	0.8	15.8	0.0	7.5	11.2	0.0	14.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.72	1.00		0.92
Lane Grp Cap(c), veh/h	60	2479		65	1311	1111	75	0	226	147	0	219
V/C Ratio(X)	0.79	1.04		0.79	0.93	0.03	2.13	0.00	0.51	0.27	0.00	0.92
Avail Cap(c_a), veh/h	137	2479		108	1311	1111	75	0	226	147	0	219
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	56.3	18.4	0.0	56.1	15.7	5.8	58.7	0.0	47.3	52.6	0.0	50.3
Incr Delay (d2), s/veh	8.3	28.5	0.0	7.7	12.6	0.0	550.5	0.0	2.0	1.0	0.0	40.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	35.4	0.0	1.6	26.0	0.2	13.6	0.0	3.2	1.2	0.0	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.7	46.9	0.0	63.8	28.3	5.8	609.2	0.0	49.3	53.5	0.0	90.4
LnGrp LOS	E	F		E	C	A	F	A	D	D	A	F
Approach Vol, veh/h		2618	A		1299			275			242	
Approach Delay, s/veh		47.2			29.1			373.0			84.3	
Approach LOS		D			C			F			F	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		21.6	9.0	87.0		21.6	8.7	87.4				
Change Period (Y+Rc), s		5.8	4.6	6.2		* 5.8	4.6	6.2				
Max Green Setting (Gmax), s		15.2	7.4	80.8		* 16	9.4	78.8				
Max Q Clear Time (g_c+I1), s		17.8	5.5	82.8		16.4	5.2	66.7				
Green Ext Time (p_c), s		0.0	0.0	0.0		0.0	0.0	7.3				

Intersection Summary	
HCM 6th Ctrl Delay	64.2
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	10	0	16	0	11	10	47	12	0
Future Vol, veh/h	0	0	0	10	0	16	0	11	10	47	12	0
Peak Hour Factor	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	19	0	30	0	20	19	87	22	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	0	7.1	7	7.8
HCM LOS	-	A	A	A

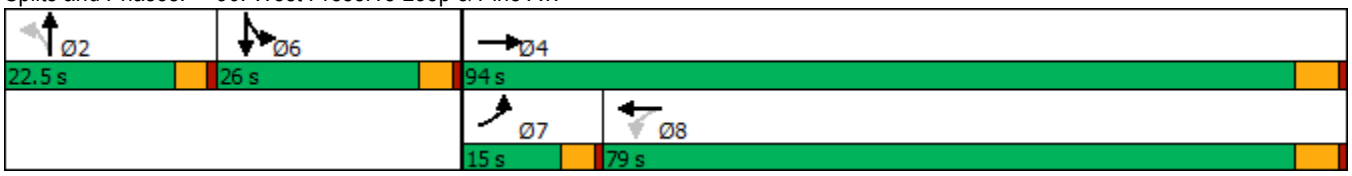
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	38%	80%
Vol Thru, %	52%	100%	0%	20%
Vol Right, %	48%	0%	62%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	21	0	26	59
LT Vol	0	0	10	47
Through Vol	11	0	0	12
RT Vol	10	0	16	0
Lane Flow Rate	39	0	48	109
Geometry Grp	1	1	1	1
Degree of Util (X)	0.041	0	0.052	0.127
Departure Headway (Hd)	3.781	4.195	3.863	4.174
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	942	0	917	860
Service Time	1.825	2.273	1.931	2.197
HCM Lane V/C Ratio	0.041	0	0.052	0.127
HCM Control Delay	7	7.3	7.1	7.8
HCM Lane LOS	A	N	A	A
HCM 95th-tile Q	0.1	0	0.2	0.4

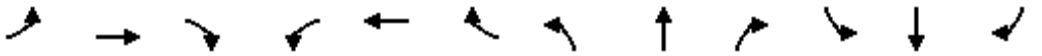
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	95	2264	25	987	93	4	173	5
Future Volume (vph)	95	2264	25	987	93	4	173	5
Turn Type	Prot	NA	Perm	NA	Perm	NA	Split	NA
Protected Phases	7	4		8		2	6	6
Permitted Phases			8		2			
Detector Phase	7	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	10.0	10.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	22.5	22.5	14.7	14.7
Total Split (s)	15.0	94.0	79.0	79.0	22.5	22.5	26.0	26.0
Total Split (%)	10.5%	66.0%	55.4%	55.4%	15.8%	15.8%	18.2%	18.2%
Yellow Time (s)	3.6	4.8	4.8	4.8	3.5	3.5	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	4.5	4.5	4.7	4.7
Lead/Lag	Lead		Lag	Lag				
Lead-Lag Optimize?	Yes		Yes	Yes				
Recall Mode	None	None	None	None	Min	Min	Min	Min

Intersection Summary

Cycle Length: 142.5
Actuated Cycle Length: 139.8
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 36: West Preserve Loop & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	2264	101	25	987	126	93	4	19	173	5	109
Future Volume (veh/h)	95	2264	101	25	987	126	93	4	19	173	5	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	99	2358	110	27	1028	126	101	4	21	180	5	110
Peak Hour Factor	0.96	0.96	0.92	0.92	0.96	0.96	0.92	0.92	0.92	0.96	0.92	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	121	2416	112	61	1882	230	131	19	100	211	9	191
Arrive On Green	0.07	0.69	0.69	0.58	0.58	0.58	0.07	0.07	0.07	0.12	0.12	0.12
Sat Flow, veh/h	1714	3513	163	138	3237	396	1810	264	1386	1714	70	1550
Grp Volume(v), veh/h	99	1202	1266	27	573	581	101	0	25	180	0	115
Grp Sat Flow(s),veh/h/ln	1714	1805	1871	138	1805	1829	1810	0	1650	1714	0	1621
Q Serve(g_s), s	7.3	79.9	83.7	4.4	25.0	25.0	7.0	0.0	1.8	13.2	0.0	8.6
Cycle Q Clear(g_c), s	7.3	79.9	83.7	74.5	25.0	25.0	7.0	0.0	1.8	13.2	0.0	8.6
Prop In Lane	1.00		0.09	1.00		0.22	1.00		0.84	1.00		0.96
Lane Grp Cap(c), veh/h	121	1241	1287	61	1049	1063	131	0	119	211	0	200
V/C Ratio(X)	0.82	0.97	0.98	0.44	0.55	0.55	0.77	0.00	0.21	0.85	0.00	0.58
Avail Cap(c_a), veh/h	139	1242	1287	61	1049	1063	254	0	232	285	0	269
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.8	18.7	19.3	63.7	16.5	16.5	58.4	0.0	56.0	55.1	0.0	53.1
Incr Delay (d2), s/veh	27.5	18.5	21.2	7.0	0.8	0.8	9.3	0.0	0.9	16.7	0.0	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	32.8	36.3	1.0	9.5	9.7	3.6	0.0	0.8	6.6	0.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.3	37.2	40.5	70.8	17.2	17.2	67.8	0.0	56.9	71.8	0.0	55.7
LnGrp LOS	F	D	D	E	B	B	E	A	E	E	A	E
Approach Vol, veh/h		2567			1181			126			295	
Approach Delay, s/veh		40.8			18.5			65.6			65.5	
Approach LOS		D			B			E			E	

Timer - Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		13.8		94.0		20.5	13.6	80.3				
Change Period (Y+Rc), s		4.5		5.8		4.7	4.6	5.8				
Max Green Setting (Gmax), s		18.0		88.2		21.3	10.4	73.2				
Max Q Clear Time (g_c+I1), s		9.0		85.7		15.2	9.3	76.5				
Green Ext Time (p_c), s		0.2		2.4		0.6	0.0	0.0				

Intersection Summary												
HCM 6th Ctrl Delay			36.9									
HCM 6th LOS			D									

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	967	227	638	143	130
Future Volume (vph)	967	227	638	143	130
Turn Type	NA	Prot	NA	Prot	Perm
Protected Phases	2	1	6	8	
Permitted Phases					8
Detector Phase	2	1	6	8	8
Switch Phase					
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	32.2	9.6	16.2	14.6	14.6
Total Split (s)	33.3	12.1	45.4	14.6	14.6
Total Split (%)	55.5%	20.2%	75.7%	24.3%	24.3%
Yellow Time (s)	5.2	3.6	5.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	6.2	4.6	4.6
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	None	None	None	Max	Max

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 58.7
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 37: Main St. & Kimball Av.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	967	325	227	638	143	130
Future Volume (veh/h)	967	325	227	638	143	130
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1800	1900	1800	1900
Adj Flow Rate, veh/h	987	326	232	651	146	109
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1154	378	222	1218	296	278
Arrive On Green	0.43	0.43	0.13	0.64	0.17	0.17
Sat Flow, veh/h	2765	876	1714	1900	1714	1610
Grp Volume(v), veh/h	665	648	232	651	146	109
Grp Sat Flow(s),veh/h/ln	1805	1741	1714	1900	1714	1610
Q Serve(g_s), s	19.2	19.5	7.5	10.8	4.5	3.5
Cycle Q Clear(g_c), s	19.2	19.5	7.5	10.8	4.5	3.5
Prop In Lane		0.50	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	780	752	222	1218	296	278
V/C Ratio(X)	0.85	0.86	1.05	0.53	0.49	0.39
Avail Cap(c_a), veh/h	844	815	222	1286	296	278
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.8	14.9	25.2	5.7	21.7	21.3
Incr Delay (d2), s/veh	8.0	8.9	72.8	0.4	5.8	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	7.4	7.1	2.1	2.2	1.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.7	23.7	98.0	6.1	27.5	25.4
LnGrp LOS	C	C	F	A	C	C
Approach Vol, veh/h	1313			883	255	
Approach Delay, s/veh	23.2			30.2	26.6	
Approach LOS	C			C	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	12.1	31.2				43.3	14.6
Change Period (Y+Rc), s	4.6	6.2				6.2	4.6
Max Green Setting (Gmax), s	7.5	27.1				39.2	10.0
Max Q Clear Time (g_c+I1), s	9.5	21.5				12.8	6.5
Green Ext Time (p_c), s	0.0	3.5				4.0	0.3

Intersection Summary			
HCM 6th Ctrl Delay		26.1	
HCM 6th LOS		C	

Intersection	
Int Delay, s/veh	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	281	774	42	67	630	221	10	14	23	193	17	226
Future Vol, veh/h	281	774	42	67	630	221	10	14	23	193	17	226
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	310	-	-	120	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	290	798	43	69	649	228	10	14	24	199	18	233

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	877	0	0	841	0	0	2427	2415	421	1887	2322	763
Stage 1	-	-	-	-	-	-	1400	1400	-	901	901	-
Stage 2	-	-	-	-	-	-	1027	1015	-	986	1421	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.5	6.9	7.3	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	779	-	-	803	-	-	20	33	587	~ 49	38	408
Stage 1	-	-	-	-	-	-	150	209	-	335	360	-
Stage 2	-	-	-	-	-	-	285	318	-	270	204	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	779	-	-	803	-	-	~ 4	19	587	~ 177	22	408
Mov Cap-2 Maneuver	-	-	-	-	-	-	161	~	-	206	50	-
Stage 1	-	-	-	-	-	-	94	131	-	210	329	-
Stage 2	-	-	-	-	-	-	106	291	-	~ 145	128	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.2	0.7	~	$ 449.9
HCM LOS			-	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	~	779	-	-	803	-	-	238
HCM Lane V/C Ratio	~	0.372	-	-	0.086	-	-	1.889
HCM Control Delay (s)	~	12.3	-	-	9.9	-	-	$ 449.9
HCM Lane LOS	-	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	~	1.7	-	-	0.3	-	-	31.7

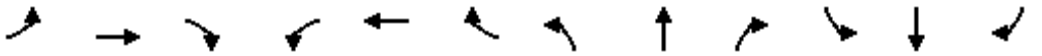
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	166	1850	441	438	966	121	188	160	68	211	51
Future Volume (vph)	166	1850	441	438	966	121	188	160	68	211	51
Turn Type	Perm	NA	Perm	Prot	NA	Split	NA	Perm	Perm	NA	Perm
Protected Phases		4		3	8	2	2			6	
Permitted Phases	4		4					2	6		6
Detector Phase	4	4	4	3	8	2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	35.8	35.8	35.8	9.6	15.8	10.1	10.1	10.1	22.5	22.5	22.5
Total Split (s)	94.0	94.0	94.0	13.0	107.0	13.0	13.0	13.0	22.5	22.5	22.5
Total Split (%)	66.0%	66.0%	66.0%	9.1%	75.1%	9.1%	9.1%	9.1%	15.8%	15.8%	15.8%
Yellow Time (s)	4.8	4.8	4.8	3.6	4.8	4.1	4.1	4.1	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	4.6	5.8	5.1	5.1	5.1	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes							
Recall Mode	None	None	None	None	None	Max	Max	Max	Min	Min	Min

Intersection Summary
Cycle Length: 142.5
Actuated Cycle Length: 142
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 39: East Preserve Loop & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	166	1850	441	438	966	165	121	188	160	68	211	51
Future Volume (veh/h)	166	1850	441	438	966	165	121	188	160	68	211	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1800	1900	1900	1700	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	180	1927	459	456	1006	179	126	204	158	74	229	55
Peak Hour Factor	0.92	0.96	0.96	0.96	0.96	0.92	0.96	0.92	0.96	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	321	2211	986	103	2160	384	177	107	91	232	244	207
Arrive On Green	0.61	0.61	0.61	0.06	0.71	0.71	0.06	0.06	0.06	0.13	0.13	0.13
Sat Flow, veh/h	480	3610	1610	1714	3063	544	3141	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	180	1927	459	456	592	593	126	204	158	74	229	55
Grp Sat Flow(s),veh/h/ln	480	1805	1610	1714	1805	1802	1570	1900	1610	1810	1900	1610
Q Serve(g_s), s	36.9	62.2	21.7	8.4	20.2	20.2	5.5	7.9	7.9	5.2	16.7	4.3
Cycle Q Clear(g_c), s	44.1	62.2	21.7	8.4	20.2	20.2	5.5	7.9	7.9	5.2	16.7	4.3
Prop In Lane	1.00		1.00	1.00		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	321	2211	986	103	1273	1271	177	107	91	232	244	207
V/C Ratio(X)	0.56	0.87	0.47	4.44	0.47	0.47	0.71	1.90	1.74	0.32	0.94	0.27
Avail Cap(c_a), veh/h	329	2272	1013	103	1303	1301	177	107	91	232	244	207
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.6	22.6	14.7	65.9	9.1	9.1	65.0	66.1	66.1	55.5	60.5	55.1
Incr Delay (d2), s/veh	2.6	4.1	0.5	1569.6	0.4	0.4	21.5	440.0	374.9	0.8	41.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	24.6	7.4	48.4	6.9	6.9	2.7	16.9	12.6	2.4	10.9	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.3	26.6	15.2	1635.5	9.4	9.4	86.5	506.1	441.0	56.3	101.5	55.8
LnGrp LOS	C	C	B	F	A	A	F	F	F	E	F	E
Approach Vol, veh/h		2566			1641			488			358	
Approach Delay, s/veh		24.4			461.3			376.7			85.2	
Approach LOS		C			F			F			F	

Timer - Assigned Phs		2	3	4		6		8				
Phs Duration (G+Y+Rc), s		13.0	13.0	91.7		22.5		104.7				
Change Period (Y+Rc), s		5.1	4.6	5.8		4.5		5.8				
Max Green Setting (Gmax), s		7.9	8.4	88.2		18.0		101.2				
Max Q Clear Time (g_c+I1), s		9.9	10.4	64.2		18.7		22.2				
Green Ext Time (p_c), s		0.0	0.0	21.7		0.0		15.2				

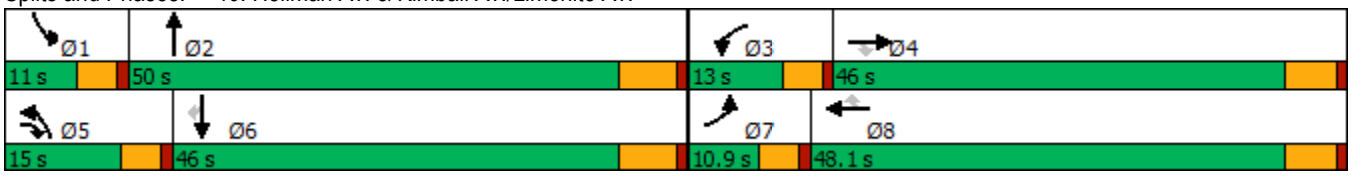
Intersection Summary												
HCM 6th Ctrl Delay			204.6									
HCM 6th LOS			F									

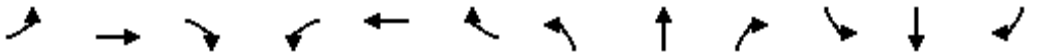
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	30	967	258	483	809	62	326	93	123	98	148
Future Volume (vph)	30	967	258	483	809	62	326	93	123	98	148
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	5	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	37.8	9.6	9.6	37.8	37.8	9.6	43.2	9.6	43.2	43.2
Total Split (s)	10.9	46.0	15.0	13.0	48.1	48.1	15.0	50.0	11.0	46.0	46.0
Total Split (%)	9.1%	38.3%	12.5%	10.8%	40.1%	40.1%	12.5%	41.7%	9.2%	38.3%	38.3%
Yellow Time (s)	3.6	4.8	3.6	3.6	4.8	4.8	3.6	5.2	3.6	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	4.6	5.8	5.8	4.6	6.2	4.6	6.2	6.2
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 98
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 40: Hellman Av. & Kimball Av./Limonite Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	967	258	483	809	62	326	93	430	123	98	148
Future Volume (veh/h)	30	967	258	483	809	62	326	93	430	123	98	148
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1700	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	32	1018	272	508	852	65	343	98	453	129	103	156
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	49	691	737	239	1484	662	161	561	501	99	992	443
Arrive On Green	0.03	0.36	0.36	0.08	0.41	0.41	0.09	0.31	0.31	0.06	0.27	0.27
Sat Flow, veh/h	1714	1900	1610	3141	3610	1610	1714	1805	1610	1714	3610	1610
Grp Volume(v), veh/h	32	1018	272	508	852	65	343	98	453	129	103	156
Grp Sat Flow(s),veh/h/ln	1714	1900	1610	1570	1805	1610	1714	1805	1610	1714	1805	1610
Q Serve(g_s), s	2.0	40.2	12.2	8.4	20.1	2.7	10.4	4.4	29.8	6.4	2.4	8.6
Cycle Q Clear(g_c), s	2.0	40.2	12.2	8.4	20.1	2.7	10.4	4.4	29.8	6.4	2.4	8.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	49	691	737	239	1484	662	161	561	501	99	992	443
V/C Ratio(X)	0.66	1.47	0.37	2.13	0.57	0.10	2.13	0.17	0.90	1.30	0.10	0.35
Avail Cap(c_a), veh/h	98	691	737	239	1484	662	161	715	638	99	1299	579
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.2	35.2	19.6	51.1	25.1	20.0	50.1	27.8	36.5	52.1	29.9	32.2
Incr Delay (d2), s/veh	5.6	221.2	0.3	522.1	0.5	0.1	527.8	0.1	14.0	190.8	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	59.8	4.3	20.5	8.2	1.0	27.9	1.8	12.9	7.9	1.0	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.8	256.4	19.9	573.2	25.6	20.0	577.9	27.9	50.5	242.9	30.0	32.7
LnGrp LOS	E	F	B	F	C	C	F	C	D	F	C	C
Approach Vol, veh/h		1322			1425			894			388	
Approach Delay, s/veh		202.9			220.6			250.4			101.9	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	40.6	13.0	46.0	15.0	36.6	7.7	51.3
Change Period (Y+Rc), s	4.6	6.2	4.6	5.8	4.6	6.2	4.6	5.8
Max Green Setting (Gmax), s	6.4	43.8	8.4	40.2	10.4	39.8	6.3	42.3
Max Q Clear Time (g_c+I1), s	8.4	31.8	10.4	42.2	12.4	10.6	4.0	22.1
Green Ext Time (p_c), s	0.0	2.6	0.0	0.0	0.0	1.0	0.0	5.6

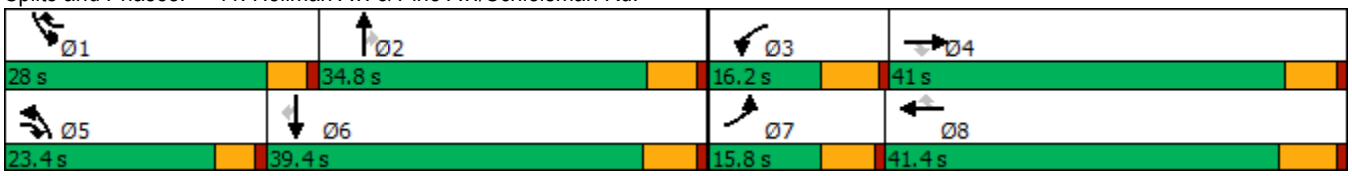
Intersection Summary	
HCM 6th Ctrl Delay	210.0
HCM 6th LOS	F

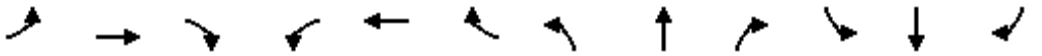
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	186	1317	618	264	1025	159	239	145	69	439	344	293
Future Volume (vph)	186	1317	618	264	1025	159	239	145	69	439	344	293
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	5	3	8	1	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	34.8	9.6	16.2	35.2	9.6	9.6	32.4	32.4	9.6	32.8	32.8
Total Split (s)	15.8	41.0	23.4	16.2	41.4	28.0	23.4	34.8	34.8	28.0	39.4	39.4
Total Split (%)	13.2%	34.2%	19.5%	13.5%	34.5%	23.3%	19.5%	29.0%	29.0%	23.3%	32.8%	32.8%
Yellow Time (s)	4.8	4.8	3.6	5.2	5.2	3.6	3.6	4.4	4.4	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	6.2	6.2	4.6	4.6	5.4	5.4	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 117.3
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 41: Hellman Av. & Pine Av./Schleisman Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	186	1317	618	264	1025	159	239	145	69	439	344	293
Future Volume (veh/h)	186	1317	618	264	1025	159	239	145	69	439	344	293
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1900	1900	1700	1900	1900	1700	1900	1900	1700	1900	1900
Adj Flow Rate, veh/h	198	1401	468	281	1090	108	254	154	46	467	366	293
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	270	1553	641	270	1571	756	310	912	407	523	1156	516
Arrive On Green	0.09	0.30	0.30	0.09	0.30	0.30	0.10	0.25	0.25	0.17	0.32	0.32
Sat Flow, veh/h	3141	5187	1610	3141	5187	1610	3141	3610	1610	3141	3610	1610
Grp Volume(v), veh/h	198	1401	468	281	1090	108	254	154	46	467	366	293
Grp Sat Flow(s),veh/h/ln	1570	1729	1610	1570	1729	1610	1570	1805	1610	1570	1805	1610
Q Serve(g_s), s	7.2	30.2	28.7	10.0	21.6	4.4	9.2	3.9	2.6	17.0	8.9	17.6
Cycle Q Clear(g_c), s	7.2	30.2	28.7	10.0	21.6	4.4	9.2	3.9	2.6	17.0	8.9	17.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	270	1553	641	270	1571	756	310	912	407	523	1156	516
V/C Ratio(X)	0.73	0.90	0.73	1.04	0.69	0.14	0.82	0.17	0.11	0.89	0.32	0.57
Avail Cap(c_a), veh/h	270	1568	646	270	1571	756	507	912	407	631	1156	516
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.9	39.2	29.7	53.2	35.8	17.6	51.4	34.0	33.5	47.5	29.9	32.9
Incr Delay (d2), s/veh	10.7	7.8	4.5	66.1	1.5	0.1	2.1	0.4	0.6	12.0	0.7	4.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	13.2	11.2	6.3	8.8	1.6	3.6	1.7	1.0	7.2	3.8	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.6	46.9	34.3	119.3	37.3	17.7	53.5	34.4	34.0	59.5	30.7	37.4
LnGrp LOS	E	D	C	F	D	B	D	C	C	E	C	D
Approach Vol, veh/h		2067			1479			454			1126	
Approach Delay, s/veh		45.5			51.5			45.1			44.4	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	35.2	16.2	41.1	16.1	43.1	15.8	41.5
Change Period (Y+Rc), s	4.6	* 5.8	6.2	* 6.2	4.6	5.8	5.8	6.2
Max Green Setting (Gmax), s	23.4	* 29	10.0	* 35	18.8	33.6	10.0	35.2
Max Q Clear Time (g_c+I1), s	19.0	5.9	12.0	32.2	11.2	19.6	9.2	23.6
Green Ext Time (p_c), s	0.4	1.3	0.0	2.7	0.3	3.8	0.1	6.9

Intersection Summary	
HCM 6th Ctrl Delay	47.0
HCM 6th LOS	D

Notes

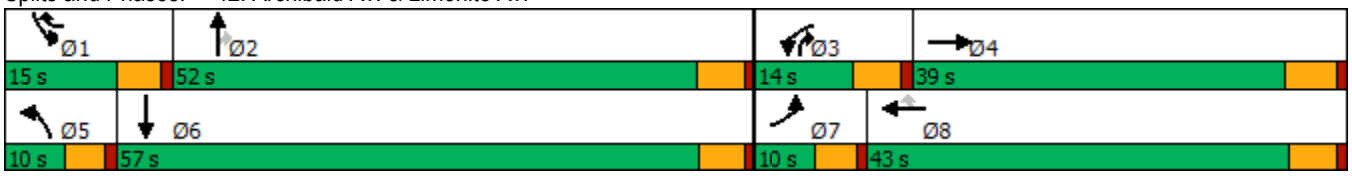
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

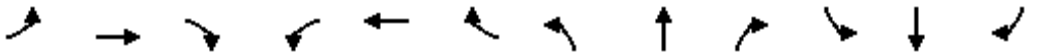
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	212	780	470	741	686	131	1155	484	655	1480
Future Volume (vph)	212	780	470	741	686	131	1155	484	655	1480
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	3	8	1	5	2	3	1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	1	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	6.0	6.0	6.0	5.0	6.0	6.0	6.0	6.0
Minimum Split (s)	9.6	35.8	11.3	36.3	11.0	9.6	46.3	11.3	11.0	43.0
Total Split (s)	10.0	39.0	14.0	43.0	15.0	10.0	52.0	14.0	15.0	57.0
Total Split (%)	8.3%	32.5%	11.7%	35.8%	12.5%	8.3%	43.3%	11.7%	12.5%	47.5%
Yellow Time (s)	3.6	4.8	4.3	4.3	4.0	3.6	4.3	4.3	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.3	5.3	5.0	4.6	5.3	5.3	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 42: Archibald Av. & Limonite Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	212	780	127	470	741	686	131	1155	484	655	1480	282
Future Volume (veh/h)	212	780	127	470	741	686	131	1155	484	655	1480	282
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	230	848	138	480	805	650	142	1179	473	668	1510	307
Peak Hour Factor	0.92	0.92	0.92	0.98	0.92	0.98	0.92	0.98	0.98	0.98	0.98	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	81	445	72	130	593	636	81	739	729	150	660	134
Arrive On Green	0.04	0.28	0.28	0.07	0.31	0.31	0.04	0.39	0.39	0.08	0.43	0.43
Sat Flow, veh/h	1810	1594	259	1810	1900	1610	1810	1900	1576	1810	1532	312
Grp Volume(v), veh/h	230	0	986	480	805	650	142	1179	473	668	0	1817
Grp Sat Flow(s),veh/h/ln	1810	0	1853	1810	1900	1610	1810	1900	1576	1810	0	1844
Q Serve(g_s), s	5.4	0.0	33.7	8.7	37.7	37.7	5.4	47.0	27.9	10.0	0.0	52.0
Cycle Q Clear(g_c), s	5.4	0.0	33.7	8.7	37.7	37.7	5.4	47.0	27.9	10.0	0.0	52.0
Prop In Lane	1.00		0.14	1.00		1.00	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	81	0	517	130	593	636	81	739	729	150	0	794
V/C Ratio(X)	2.84	0.00	1.91	3.68	1.36	1.02	1.76	1.59	0.65	4.46	0.00	2.29
Avail Cap(c_a), veh/h	81	0	517	130	593	636	81	739	729	150	0	794
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.7	0.0	43.6	56.0	41.6	36.6	57.7	36.9	25.1	55.4	0.0	34.4
Incr Delay (d2), s/veh	862.5	0.0	415.4	1226.1	171.7	41.5	385.6	274.1	2.2	1572.1	0.0	584.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.8	0.0	75.0	48.2	44.9	24.7	11.1	76.5	10.1	69.8	0.0	149.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	920.2	0.0	458.9	1282.2	213.3	78.0	443.3	311.0	27.2	1627.5	0.0	618.5
LnGrp LOS	F	A	F	F	F	F	F	F	C	F	A	F
Approach Vol, veh/h		1216			1935			1794			2485	
Approach Delay, s/veh		546.2			433.0			246.6			889.7	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	52.3	14.0	39.5	10.0	57.3	10.0	43.5
Change Period (Y+Rc), s	5.0	5.3	5.3	5.8	4.6	* 5.3	4.6	* 5.8
Max Green Setting (Gmax), s	10.0	46.7	8.7	33.2	5.4	* 52	5.4	* 38
Max Q Clear Time (g_c+I1), s	12.0	49.0	10.7	35.7	7.4	54.0	7.4	39.7
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	559.3
HCM 6th LOS	F

Notes

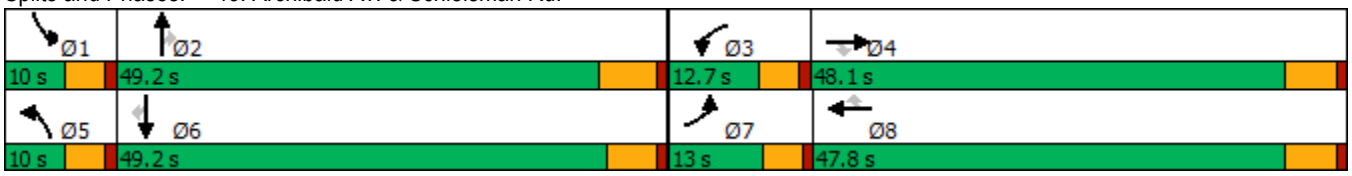
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

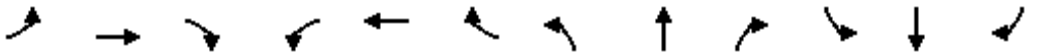
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	522	1577	234	329	870	290	238	1039	242	515	938	467
Future Volume (vph)	522	1577	234	329	870	290	238	1039	242	515	938	467
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	47.8	47.8	9.6	47.8	47.8	9.6	48.2	48.2	9.6	47.4	47.4
Total Split (s)	13.0	48.1	48.1	12.7	47.8	47.8	10.0	49.2	49.2	10.0	49.2	49.2
Total Split (%)	10.8%	40.1%	40.1%	10.6%	39.8%	39.8%	8.3%	41.0%	41.0%	8.3%	41.0%	41.0%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	5.2	5.2	3.6	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	6.2	6.2	4.6	5.4	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 110.1
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 43: Archibald Av. & Schleisman Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	522	1577	234	329	870	290	238	1039	242	515	938	467
Future Volume (veh/h)	522	1577	234	329	870	290	238	1039	242	515	938	467
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	533	1609	157	336	888	270	243	1060	210	526	957	363
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	270	2010	624	260	1996	619	174	1528	474	174	1528	473
Arrive On Green	0.08	0.39	0.39	0.07	0.38	0.38	0.05	0.29	0.29	0.05	0.29	0.29
Sat Flow, veh/h	3510	5187	1610	3510	5187	1608	3510	5187	1610	3510	5187	1605
Grp Volume(v), veh/h	533	1609	157	336	888	270	243	1060	210	526	957	363
Grp Sat Flow(s),veh/h/ln	1755	1729	1610	1755	1729	1608	1755	1729	1610	1755	1729	1605
Q Serve(g_s), s	8.4	30.1	7.2	8.1	13.9	13.6	5.4	19.8	11.5	5.4	17.4	22.5
Cycle Q Clear(g_c), s	8.4	30.1	7.2	8.1	13.9	13.6	5.4	19.8	11.5	5.4	17.4	22.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	270	2010	624	260	1996	619	174	1528	474	174	1528	473
V/C Ratio(X)	1.97	0.80	0.25	1.29	0.44	0.44	1.40	0.69	0.44	3.03	0.63	0.77
Avail Cap(c_a), veh/h	270	2010	624	260	1996	619	174	2043	634	174	2081	644
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.4	29.7	22.7	50.5	24.9	24.8	51.9	34.1	31.2	51.9	33.3	35.1
Incr Delay (d2), s/veh	451.0	3.5	1.0	156.1	0.7	2.2	210.7	0.7	0.6	928.3	0.4	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.5	12.3	2.8	9.1	5.5	5.3	7.4	7.9	4.4	24.7	6.9	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	501.4	33.1	23.7	206.7	25.6	27.1	262.6	34.8	31.9	980.1	33.7	38.9
LnGrp LOS	F	C	C	F	C	C	F	C	C	F	C	D
Approach Vol, veh/h		2299			1494			1513			1846	
Approach Delay, s/veh		141.1			66.6			71.0			304.4	
Approach LOS		F			E			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	38.4	12.7	48.1	10.0	38.4	13.0	47.8
Change Period (Y+Rc), s	4.6	6.2	4.6	5.8	4.6	* 6.2	4.6	5.8
Max Green Setting (Gmax), s	5.4	43.0	8.1	42.3	5.4	* 44	8.4	42.0
Max Q Clear Time (g_c+I1), s	7.4	21.8	10.1	32.1	7.4	24.5	10.4	15.9
Green Ext Time (p_c), s	0.0	7.6	0.0	7.2	0.0	7.2	0.0	7.2

Intersection Summary	
HCM 6th Ctrl Delay	152.8
HCM 6th LOS	F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 8.3:

HORIZON YEAR (2040) WITHOUT PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

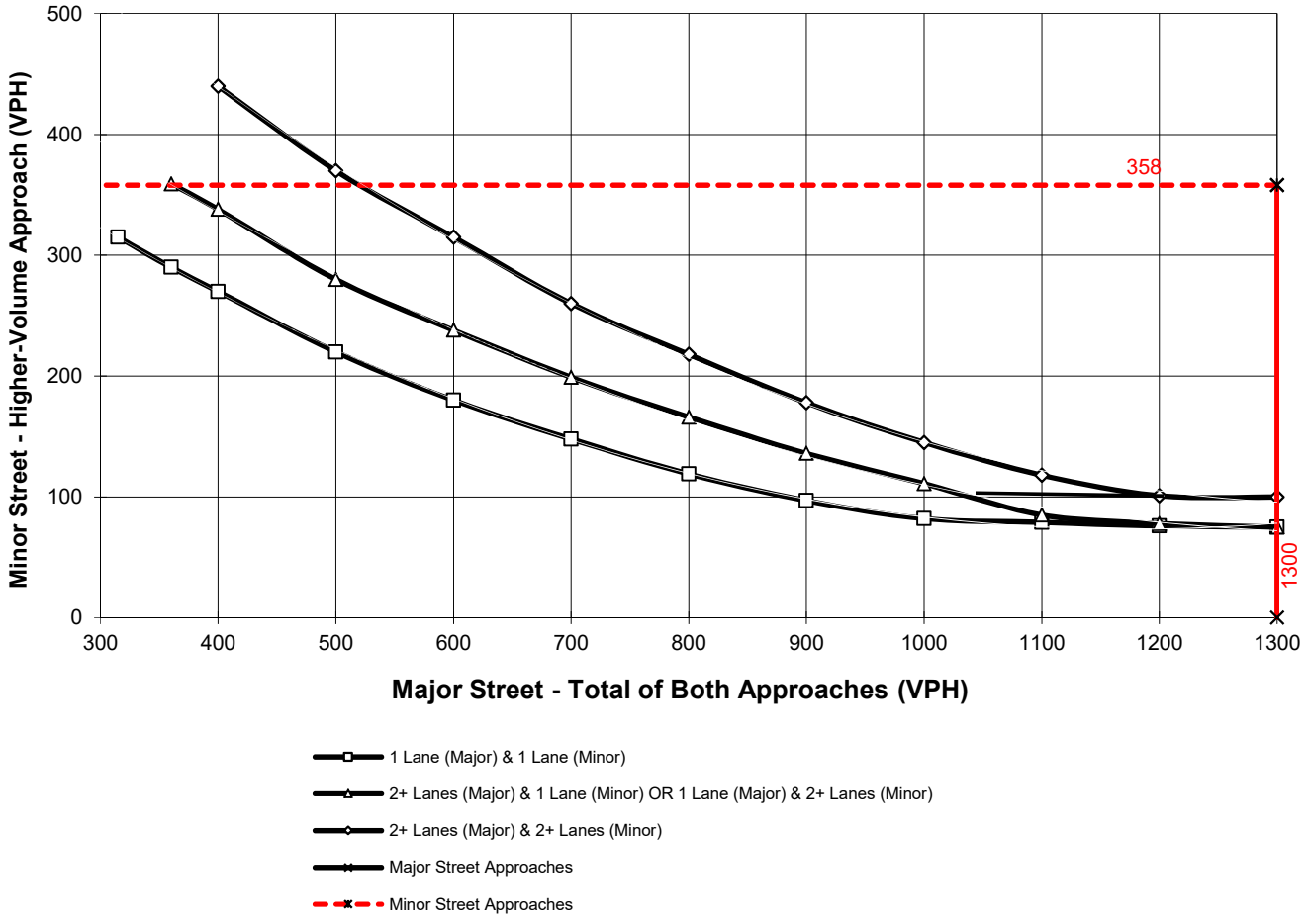
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Horizon Year (2040) Without Project Conditions - Weekday PM Peak Hour**

Major Street Name = **Pine Av**
Total of Both Approaches (VPH) = **2249**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **SR-71 NB Ramps**
High Volume Approach (VPH) = **358**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

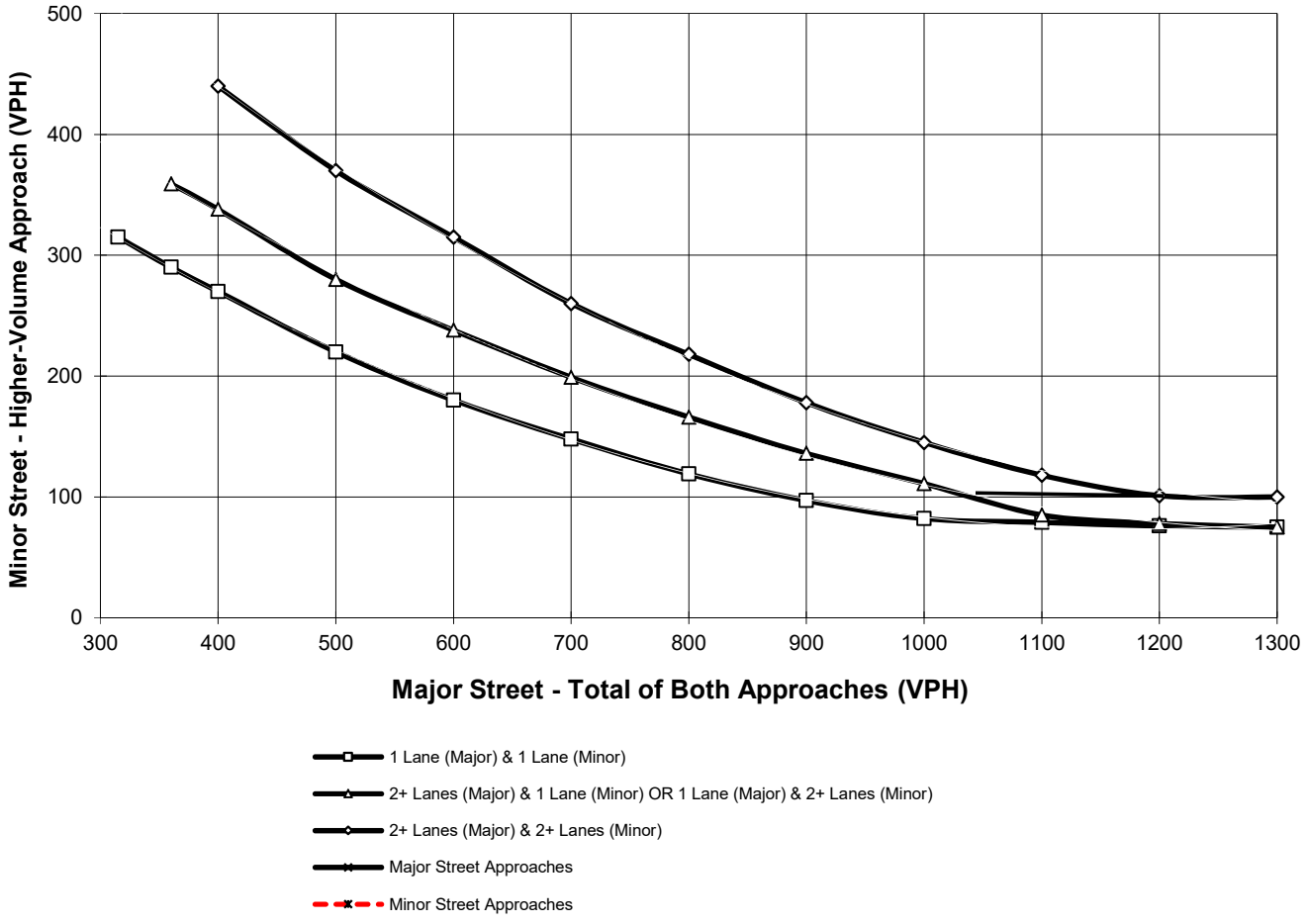
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Horizon Year (2040) Without Project Conditions - Weekday PM Peak Hour**

Major Street Name = **Bickmore Av** — Total of Both Approaches (VPH) = **222**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Mountain Av** — High Volume Approach (VPH) = **157**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	HY (2040) NP
				CALC LC	DATE 04/16/19
Jurisdiction: City of Chino				CHK CH	DATE 04/16/19
Major Street: Pine Av				Critical Approach Speed (Major)	50 mph
Minor Street: Rincon Meadows Av				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **2** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **35,545** vpd Minor Street Future ADT = **7,040** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
CONDITION A - Minimum Vehicular Volume	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied: XX (RURAL: XX) / Not Satisfied	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach: Major Street / Minor Street				
1 / *1*	8,000	5,600	2,400	1,680
2 + **35,545** / *1* **7,040**	9,600	6,720 *	2,400	1,680 *
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied: XX / Not Satisfied	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach: Major Street / Minor Street				
1 / *1*	12,000	8,400	1,200	850
2 + **35,545** / *1* **7,040**	14,400	10,080 *	1,200	850 *
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied: XX / Not Satisfied	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 100% B: 100%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

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APPENDIX 8.4:

HORIZON YEAR (2040) WITH PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

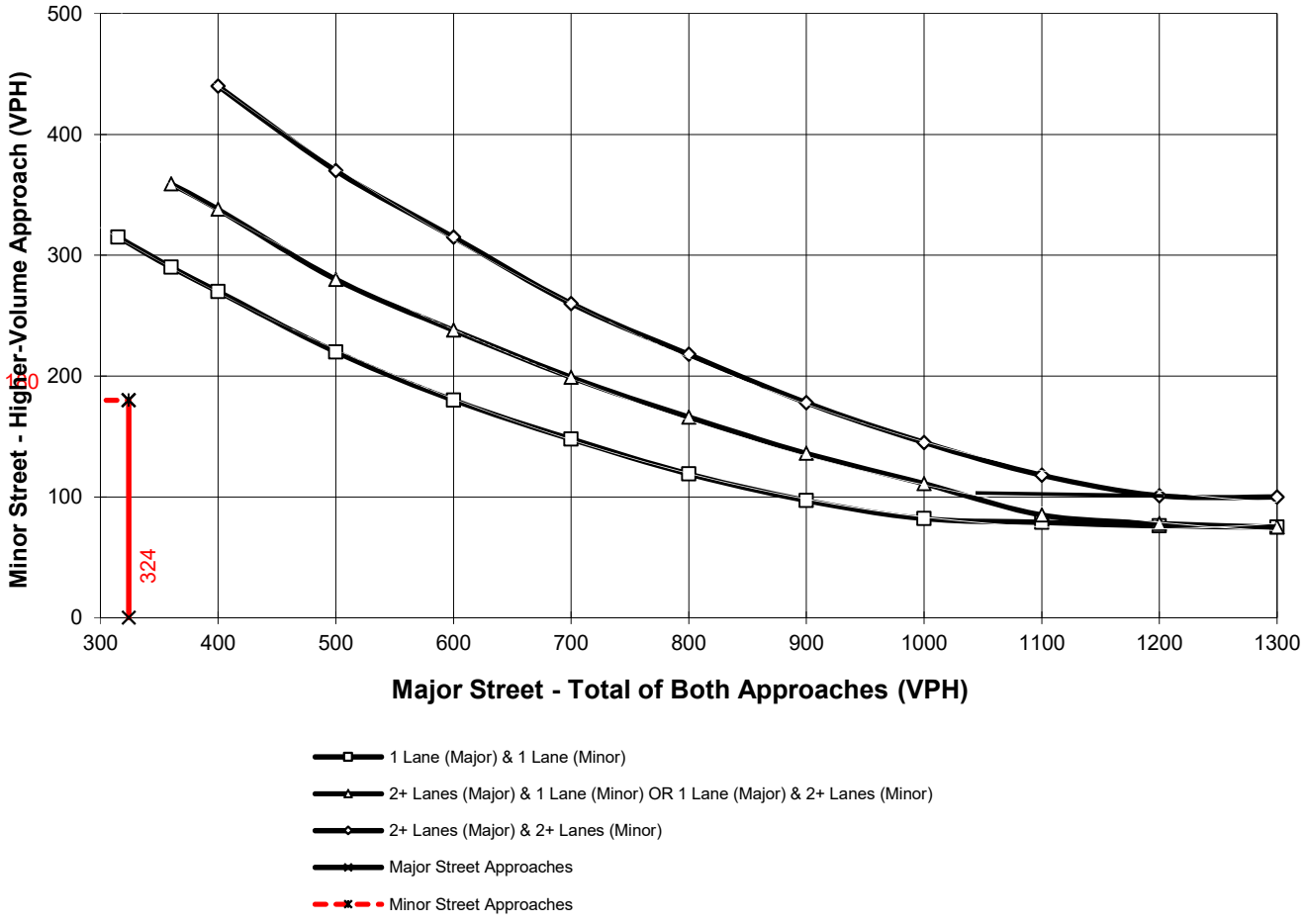
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Horizon Year (2040) With Project Conditions - Weekday PM Peak Hour**

Major Street Name = **Bickmore Av** Total of Both Approaches (VPH) = **324**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Mountain Av** High Volume Approach (VPH) = **180**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	HY (2040) WP
				CALC LC	DATE 04/03/19
Jurisdiction: City of Chino				CHK CH	DATE 04/03/19
Major Street: Mountain Av				Critical Approach Speed (Major)	45 mph
Minor Street: Driveway 1				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **3,522** vpd Minor Street Future ADT = **361** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ..... √

or

In built up area of isolated community of < 10,000 population .....

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches)		Minimum Requirements EADT: Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
CONDITION A - Minimum Vehicular Volume				
Satisfied / Not Satisfied XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **3,522** / *1* **361**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic				
Satisfied / Not Satisfied XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **3,522** / *1* **361**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ..... A **21%** B **42%**				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	HY (2040) WP
				CALC LC	DATE 04/03/19
Jurisdiction: City of Chino				CHK CH	DATE 04/03/19
Major Street: Mountain Av				Critical Approach Speed (Major)	45 mph
Minor Street: Driveway 2				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **3,913** vpd Minor Street Future ADT = **1,352** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ..... √

or

In built up area of isolated community of < 10,000 population .....

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
CONDITION A - Minimum Vehicular Volume	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied (XX)	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **3,913** / *1* **1,352**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied (XX)	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **3,913** / *1* **1,352**	12,000	8,400	1,200	850 *
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied (XX)	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ..... A: 70% B: 47%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	HY (2040) WP
				CALC LC	DATE 04/03/19
Jurisdiction: City of Chino				CHK CH	DATE 04/03/19
Major Street: Mountain Av				Critical Approach Speed (Major)	45 mph
Minor Street: Driveway 3				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **4,570** vpd Minor Street Future ADT = **483** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ..... √

or

In built up area of isolated community of < 10,000 population .....

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches)		Minimum Requirements EADT: Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
CONDITION A - Minimum Vehicular Volume				
Satisfied / Not Satisfied XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **4,570** / 1 **483**	8,000	5,600	2,400	1,680
2 + / 1	9,600	6,720	2,400	1,680
2 + / 2 +	9,600	6,720	3,200	2,240
1 / 2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic				
Satisfied / Not Satisfied XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **4,570** / 1 **483**	12,000	8,400	1,200	850
2 + / 1	14,400	10,080	1,200	850
2 + / 2 +	14,400	10,080	1,600	1,120
1 / 2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ..... A 29% B 54%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	HY (2040) WP
				CALC LC	DATE 04/03/19
Jurisdiction: City of Chino				CHK CH	DATE 04/03/19
Major Street: Bickmore Av				Critical Approach Speed (Major)	40 mph
Minor Street: Driveway 4				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **6,233** vpd Minor Street Future ADT = **452** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …… [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
XX	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
CONDITION A - Minimum Vehicular Volume	Urban	Rural	Urban	Rural
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **6,233** / *1* **452**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **6,233** / *1* **452**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied: XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 19% B: 38%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	HY (2040) WP
				CALC LC	DATE 04/03/19
Jurisdiction: City of Chino				CHK CH	DATE 04/03/19
Major Street: Bickmore Av				Critical Approach Speed (Major)	40 mph
Minor Street: Driveway 5				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **6,789** vpd Minor Street Future ADT = **104** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …… [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
XX					
CONDITION A - Minimum Vehicular Volume					
Satisfied	Not Satisfied	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **6,789**	*1* **104**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic					
Satisfied	Not Satisfied	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **6,789**	*1* **104**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
	XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	**A** 4% **B** 9%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	HY (2040) WP
				CALC LC	DATE 04/03/19
Jurisdiction: **City of Chino**				CHK CH	DATE 04/03/19
Major Street: **Bickmore Av**				Critical Approach Speed (Major)	40 mph
Minor Street: **Driveway 6**				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **6,999** vpd Minor Street Future ADT = **106** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …… [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches)		Minimum Requirements EADT: Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
XX	Urban	Rural	Urban	Rural
CONDITION A - Minimum Vehicular Volume				
Satisfied / Not Satisfied **XX**				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **6,999** / *1* **106**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic				
Satisfied / Not Satisfied **XX**				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **6,999** / *1* **106**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied **XX**	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. **A** **4%** **B** **9%**				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

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APPENDIX 8.5:

HORIZON YEAR (2040) WITHOUT PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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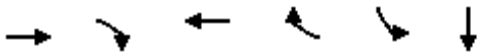
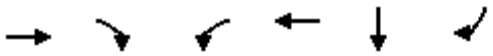


Lane Group	EBT	EBR	WBT	WBR	SBL	SBT
Lane Group Flow (vph)	1788	120	878	285	540	488
v/c Ratio	0.81	0.16	0.40	0.21	0.82	0.76
Control Delay	20.2	3.6	13.6	2.3	28.7	23.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.2	3.6	13.6	2.3	28.7	23.4
Queue Length 50th (ft)	228	0	88	0	183	142
Queue Length 95th (ft)	278	25	115	20	#297	242
Internal Link Dist (ft)	970		693			1282
Turn Bay Length (ft)		175				
Base Capacity (vph)	2210	739	2210	1340	758	726
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.16	0.40	0.21	0.71	0.67

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

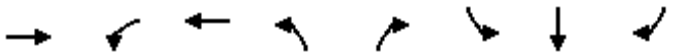


Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	820	42	58	307	501	231
v/c Ratio	1.44	0.08	0.43	0.22	0.58	0.26
Control Delay	230.3	0.6	40.8	13.9	17.1	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	230.3	0.6	40.8	13.9	17.1	2.7
Queue Length 50th (ft)	~506	0	25	42	158	0
Queue Length 95th (ft)	#667	1	56	63	236	30
Internal Link Dist (ft)	1415			361	1338	
Turn Bay Length (ft)			150			725
Base Capacity (vph)	571	554	136	1612	857	886
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.44	0.08	0.43	0.19	0.58	0.26

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	873	239	412	21	337	355	359	14
v/c Ratio	1.02	0.70	0.24	0.15	1.07	0.73	0.74	0.03
Control Delay	68.1	44.4	20.4	37.3	89.1	34.5	34.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.1	44.4	20.4	37.3	89.1	34.5	34.6	0.1
Queue Length 50th (ft)	~237	118	82	10	~84	167	169	0
Queue Length 95th (ft)	#364	#301	126	32	#246	232	233	0
Internal Link Dist (ft)	980		1139				1358	
Turn Bay Length (ft)		200				1000		255
Base Capacity (vph)	855	343	1748	137	314	640	645	693
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.02	0.70	0.24	0.15	1.07	0.55	0.56	0.02

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBT	WBR	NBL	NBT
Lane Group Flow (vph)	1428	989	1034	1261	117	510
v/c Ratio	0.62	0.79	0.45	0.95	0.18	0.83
Control Delay	16.6	7.6	14.5	21.8	12.5	28.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.6	7.6	14.5	21.8	12.5	28.4
Queue Length 50th (ft)	159	0	104	42	30	163
Queue Length 95th (ft)	219	#67	148	#415	54	249
Internal Link Dist (ft)	693		840			1223
Turn Bay Length (ft)						
Base Capacity (vph)	2290	1246	2290	1322	778	724
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.79	0.45	0.95	0.15	0.70

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Intersection Delay, s/veh	316.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	495	639	0	0	247	920	67	6	71	0	0	0
Future Vol, veh/h	495	639	0	0	247	920	67	6	71	0	0	0
Peak Hour Factor	0.86	0.92	0.86	0.92	0.92	0.92	0.86	0.86	0.92	0.92	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	576	695	0	0	268	1000	78	7	77	0	0	0
Number of Lanes	2	1	0	0	1	0	1	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	22.2	649.7	16.4
HCM LOS	C	F	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1
Vol Left, %	100%	8%	100%	100%	0%	0%
Vol Thru, %	0%	7%	0%	0%	100%	21%
Vol Right, %	0%	85%	0%	0%	0%	79%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	60	84	248	248	639	1167
LT Vol	60	7	248	248	0	0
Through Vol	0	6	0	0	639	247
RT Vol	0	71	0	0	0	920
Lane Flow Rate	70	92	288	288	695	1268
Geometry Grp	8	8	7	7	7	8
Degree of Util (X)	0.177	0.205	0.507	0.507	0.8	2.397
Departure Headway (Hd)	11.681	10.552	7.59	7.59	5.315	6.803
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	309	343	478	478	688	545
Service Time	9.381	8.252	5.29	5.29	3.015	4.517
HCM Lane V/C Ratio	0.227	0.268	0.603	0.603	1.01	2.327
HCM Control Delay	16.9	16	17.8	17.8	25.8	649.7
HCM Lane LOS	C	C	C	C	D	F
HCM 95th-tile Q	0.6	0.8	2.8	2.8	8.1	97.1



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	560	52	427	1765	166	596
v/c Ratio	0.43	0.08	0.78	0.69	0.24	0.75
Control Delay	20.0	5.3	35.1	8.1	30.9	10.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.0	5.3	35.1	8.1	30.9	10.8
Queue Length 50th (ft)	96	2	192	203	37	0
Queue Length 95th (ft)	m140	m5	255	172	70	#157
Internal Link Dist (ft)	1139			2865	1665	
Turn Bay Length (ft)		100	300			420
Base Capacity (vph)	1301	615	800	3023	679	793
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.08	0.53	0.58	0.24	0.75

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	491	482	445	580	1259	1294	631
v/c Ratio	0.96	0.98	0.86	1.23	0.60	1.32	0.74
Control Delay	62.8	67.0	41.9	130.8	22.3	180.0	10.6
Queue Delay	0.0	0.0	0.0	0.0	3.9	0.0	0.0
Total Delay	62.8	67.0	41.9	130.8	26.2	180.0	10.6
Queue Length 50th (ft)	286	287	206	~413	383	~504	31
Queue Length 95th (ft)	#493	#510	#388	m#336	m321	#635	154
Internal Link Dist (ft)		1410			440	1540	
Turn Bay Length (ft)	400		400	285			
Base Capacity (vph)	514	494	519	471	2105	982	847
Starvation Cap Reductn	0	0	0	0	742	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.98	0.86	1.23	0.92	1.32	0.74

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



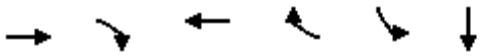
Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	492	745	1269	904	483	1649
v/c Ratio	1.03	1.66	1.15	1.01	1.05	0.75
Control Delay	84.2	330.3	109.2	44.6	68.4	6.8
Queue Delay	24.7	1.2	0.0	0.0	0.0	3.9
Total Delay	108.8	331.5	109.2	44.6	68.4	10.8
Queue Length 50th (ft)	~318	~649	~451	~232	~248	111
Queue Length 95th (ft)	#518	#883	#581	#517	m191	m100
Internal Link Dist (ft)		1071	1060			440
Turn Bay Length (ft)	900					
Base Capacity (vph)	476	450	1103	896	461	2186
Starvation Cap Reductn	0	0	0	0	0	446
Spillback Cap Reductn	62	56	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.19	1.89	1.15	1.01	1.05	0.95

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

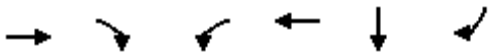


Lane Group	EBT	EBR	WBT	WBR	SBL	SBT
Lane Group Flow (vph)	1166	82	954	330	968	1099
v/c Ratio	0.85	0.17	0.70	0.34	1.01	1.24
Control Delay	30.3	6.2	24.7	3.7	50.1	136.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.3	6.2	24.7	3.7	50.1	136.5
Queue Length 50th (ft)	160	0	124	0	~382	~582
Queue Length 95th (ft)	#229	28	165	29	#656	#817
Internal Link Dist (ft)	970		693			1282
Turn Bay Length (ft)		175				
Base Capacity (vph)	1372	475	1372	976	955	886
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.17	0.70	0.34	1.01	1.24

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	464	47	127	540	847	586
v/c Ratio	0.92	0.09	0.99	0.37	1.01	0.69
Control Delay	51.6	1.3	115.6	15.5	56.2	14.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.6	1.3	115.6	15.5	56.2	14.9
Queue Length 50th (ft)	193	0	56	83	~360	125
Queue Length 95th (ft)	#360	5	#156	120	#599	240
Internal Link Dist (ft)	1415			361	1338	
Turn Bay Length (ft)			150			725
Base Capacity (vph)	507	503	128	1460	836	848
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.09	0.99	0.37	1.01	0.69

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	1098	177	321	21	176	574	587	39
v/c Ratio	1.11	1.30	0.22	0.18	0.79	0.90	0.91	0.06
Control Delay	93.2	196.1	25.9	39.4	38.0	42.7	44.4	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	93.2	196.1	25.9	39.4	38.0	42.7	44.4	0.2
Queue Length 50th (ft)	~335	~127	77	10	23	272	280	0
Queue Length 95th (ft)	#460	m#168	m93	32	#122	#470	#484	0
Internal Link Dist (ft)	980		1139				1358	
Turn Bay Length (ft)		200				1000		255
Base Capacity (vph)	989	136	1469	115	224	662	667	711
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.11	1.30	0.22	0.18	0.79	0.87	0.88	0.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	WBT	WBR	NBL	NBT
Lane Group Flow (vph)	1660	490	1066	806	148	418
v/c Ratio	0.62	0.46	0.40	0.66	0.29	0.84
Control Delay	12.9	2.7	10.6	3.9	17.9	34.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.9	2.7	10.6	3.9	17.9	34.6
Queue Length 50th (ft)	172	0	94	0	43	134
Queue Length 95th (ft)	220	43	125	53	85	#273
Internal Link Dist (ft)	693		840			1223
Turn Bay Length (ft)						
Base Capacity (vph)	2689	1054	2689	1225	585	557
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.46	0.40	0.66	0.25	0.75

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Intersection Delay, s/veh	329.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	360	878	0	0	511	500	123	3	232	0	0	0
Future Vol, veh/h	360	878	0	0	511	500	123	3	232	0	0	0
Peak Hour Factor	0.86	0.92	0.86	0.92	0.92	0.92	0.86	0.86	0.92	0.92	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	419	954	0	0	555	543	143	3	252	0	0	0
Number of Lanes	2	1	0	0	1	0	1	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	142.7	674.2	25.8
HCM LOS	F	F	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1
Vol Left, %	100%	5%	100%	100%	0%	0%
Vol Thru, %	0%	1%	0%	0%	100%	51%
Vol Right, %	0%	94%	0%	0%	0%	49%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	111	247	180	180	878	1011
LT Vol	111	12	180	180	0	0
Through Vol	0	3	0	0	878	511
RT Vol	0	232	0	0	0	500
Lane Flow Rate	129	270	209	209	954	1099
Geometry Grp	8	8	7	7	7	8
Degree of Util (X)	0.324	0.596	0.428	0.428	1.369	2.442
Departure Headway (Hd)	12.111	10.884	8.983	8.983	6.673	8.514
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	299	335	404	404	554	440
Service Time	9.811	8.584	6.683	6.683	4.373	6.214
HCM Lane V/C Ratio	0.431	0.806	0.517	0.517	1.722	2.498
HCM Control Delay	20.5	28.4	18.2	18.2	197.3	674.2
HCM Lane LOS	C	D	C	C	F	F
HCM 95th-tile Q	1.4	3.6	2.1	2.1	33.2	81

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	1192	7	63	1898	210	1479
v/c Ratio	0.69	0.01	0.36	0.88	0.20	2.00
Control Delay	17.5	10.2	38.9	19.6	21.7	474.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.5	10.2	38.9	19.6	21.7	474.2
Queue Length 50th (ft)	191	1	30	373	40	~1055
Queue Length 95th (ft)	m255	m1	62	441	63	#1226
Internal Link Dist (ft)	1139			2865	1665	
Turn Bay Length (ft)		100	300			420
Base Capacity (vph)	1732	776	327	2188	1054	739
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.01	0.19	0.87	0.20	2.00

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	456	455	413	626	1384	1296	623
v/c Ratio	0.87	0.91	0.79	1.49	0.66	1.22	0.68
Control Delay	48.2	52.6	34.8	244.3	26.7	138.1	6.6
Queue Delay	0.0	0.0	0.0	0.0	20.6	0.0	0.0
Total Delay	48.2	52.6	34.8	244.3	47.4	138.1	6.6
Queue Length 50th (ft)	249	256	176	~521	453	~481	0
Queue Length 95th (ft)	#420	#447	#326	m#399	m364	#611	84
Internal Link Dist (ft)		1410			404	1540	
Turn Bay Length (ft)				285			400
Base Capacity (vph)	552	528	545	421	2086	1062	915
Starvation Cap Reductn	0	0	0	0	739	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.86	0.76	1.49	1.03	1.22	0.68

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	463	602	1455	781	467	1587
v/c Ratio	1.01	1.37	1.27	0.86	1.01	0.71
Control Delay	80.3	209.2	158.8	18.8	56.4	5.5
Queue Delay	36.5	7.0	0.0	0.0	0.0	2.4
Total Delay	116.8	216.2	158.8	18.8	56.4	7.9
Queue Length 50th (ft)	~283	~469	~555	95	~217	90
Queue Length 95th (ft)	#489	#687	#688	#361	m197	m102
Internal Link Dist (ft)		1071	1124			404
Turn Bay Length (ft)	900					
Base Capacity (vph)	457	439	1143	903	461	2226
Starvation Cap Reductn	0	0	0	0	0	486
Spillback Cap Reductn	219	201	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.95	2.53	1.27	0.86	1.01	0.91

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

APPENDIX 8.6:

HORIZON YEAR (2040) WITH PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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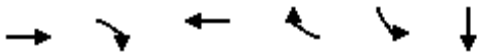
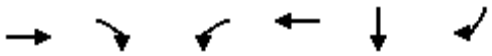


Lane Group	EBT	EBR	WBT	WBR	SBL	SBT
Lane Group Flow (vph)	1791	120	880	285	539	495
v/c Ratio	0.81	0.16	0.40	0.21	0.82	0.77
Control Delay	20.2	3.6	13.6	2.3	28.6	24.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.2	3.6	13.6	2.3	28.6	24.0
Queue Length 50th (ft)	228	0	88	0	183	145
Queue Length 95th (ft)	278	25	115	20	#295	248
Internal Link Dist (ft)	970		693			1282
Turn Bay Length (ft)		175				
Base Capacity (vph)	2210	739	2210	1340	758	727
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.16	0.40	0.21	0.71	0.68

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

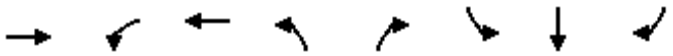


Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	826	42	73	308	557	231
v/c Ratio	1.49	0.08	0.55	0.21	0.67	0.27
Control Delay	254.8	0.6	49.3	13.5	20.0	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	254.8	0.6	49.3	13.5	20.0	2.8
Queue Length 50th (ft)	~511	0	31	42	184	0
Queue Length 95th (ft)	#673	1	#79	63	272	30
Internal Link Dist (ft)	1415			361	1338	
Turn Bay Length (ft)			150			725
Base Capacity (vph)	554	541	132	1564	832	867
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.49	0.08	0.55	0.20	0.67	0.27

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	873	239	412	21	337	355	359	14
v/c Ratio	1.02	0.70	0.24	0.15	1.07	0.73	0.74	0.03
Control Delay	68.1	44.4	20.4	37.3	89.1	34.5	34.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.1	44.4	20.4	37.3	89.1	34.5	34.6	0.1
Queue Length 50th (ft)	~237	118	82	10	~84	167	169	0
Queue Length 95th (ft)	#364	#301	126	32	#246	232	233	0
Internal Link Dist (ft)	980		1139				1358	
Turn Bay Length (ft)		200				1000		255
Base Capacity (vph)	855	343	1748	137	314	640	645	693
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.02	0.70	0.24	0.15	1.07	0.55	0.56	0.02

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBT	WBR	NBL	NBT
Lane Group Flow (vph)	1438	989	1035	1263	117	510
v/c Ratio	0.63	0.79	0.45	0.96	0.18	0.83
Control Delay	16.7	7.6	14.5	22.1	12.5	28.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.7	7.6	14.5	22.1	12.5	28.4
Queue Length 50th (ft)	160	0	104	43	30	163
Queue Length 95th (ft)	220	#67	148	#417	54	249
Internal Link Dist (ft)	693		840			1223
Turn Bay Length (ft)						
Base Capacity (vph)	2290	1246	2290	1322	778	724
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.79	0.45	0.96	0.15	0.70

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Intersection Delay, s/veh	353.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	495	692	0	0	262	934	67	6	116	0	0	0
Future Vol, veh/h	495	692	0	0	262	934	67	6	116	0	0	0
Peak Hour Factor	0.86	0.92	0.86	0.92	0.92	0.92	0.86	0.86	0.92	0.92	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	576	752	0	0	285	1015	78	7	126	0	0	0
Number of Lanes	2	1	0	0	1	0	1	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	31.9	736.5	18.3
HCM LOS	D	F	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1
Vol Left, %	100%	5%	100%	100%	0%	0%
Vol Thru, %	0%	5%	0%	0%	100%	22%
Vol Right, %	0%	90%	0%	0%	0%	78%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	60	129	248	248	692	1196
LT Vol	60	7	248	248	0	0
Through Vol	0	6	0	0	692	262
RT Vol	0	116	0	0	0	934
Lane Flow Rate	70	141	288	288	752	1300
Geometry Grp	8	8	7	7	7	8
Degree of Util (X)	0.179	0.317	0.525	0.525	0.913	2.589
Departure Headway (Hd)	12.149	10.957	8.095	8.095	5.806	7.17
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	297	331	449	449	632	520
Service Time	9.849	8.657	5.795	5.795	3.506	4.891
HCM Lane V/C Ratio	0.236	0.426	0.641	0.641	1.19	2.5
HCM Control Delay	17.5	18.7	19.4	19.4	41.5	736.5
HCM Lane LOS	C	C	C	C	E	F
HCM 95th-tile Q	0.6	1.3	3	3	11.6	104.1



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	560	52	427	1765	166	596
v/c Ratio	0.43	0.08	0.78	0.69	0.24	0.75
Control Delay	20.0	5.3	35.1	8.1	30.9	10.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.0	5.3	35.1	8.1	30.9	10.8
Queue Length 50th (ft)	96	2	192	203	37	0
Queue Length 95th (ft)	m140	m5	255	172	70	#157
Internal Link Dist (ft)	1139			2865	1665	
Turn Bay Length (ft)		100	300			420
Base Capacity (vph)	1301	615	800	3023	679	793
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.08	0.53	0.58	0.24	0.75

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	498	498	450	583	1260	1299	631
v/c Ratio	0.97	1.01	0.87	1.24	0.60	1.32	0.75
Control Delay	65.7	75.6	43.0	133.6	22.3	182.2	10.8
Queue Delay	0.0	0.0	0.0	0.0	4.0	0.0	0.0
Total Delay	65.7	75.6	43.0	133.6	26.3	182.2	10.8
Queue Length 50th (ft)	292	~307	210	~418	385	~507	32
Queue Length 95th (ft)	#503	#537	#395	m#339	m321	#638	156
Internal Link Dist (ft)		1410			440	1540	
Turn Bay Length (ft)	400		400	285			
Base Capacity (vph)	514	493	519	471	2105	982	845
Starvation Cap Reductn	0	0	0	0	743	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	1.01	0.87	1.24	0.93	1.32	0.75

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



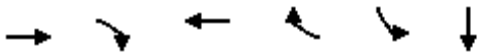
Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	492	758	1275	913	483	1683
v/c Ratio	1.03	1.69	1.16	1.02	1.05	0.77
Control Delay	84.2	346.1	111.3	47.5	68.4	7.1
Queue Delay	24.7	1.3	0.0	0.0	0.0	5.2
Total Delay	108.9	347.4	111.3	47.5	68.4	12.3
Queue Length 50th (ft)	~318	~668	~455	~257	~250	117
Queue Length 95th (ft)	#518	#903	#584	#528	m190	m103
Internal Link Dist (ft)		1071	1060			440
Turn Bay Length (ft)	900					
Base Capacity (vph)	476	448	1103	896	461	2186
Starvation Cap Reductn	0	0	0	0	0	440
Spillback Cap Reductn	63	57	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.19	1.94	1.16	1.02	1.05	0.96

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

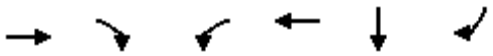


Lane Group	EBT	EBR	WBT	WBR	SBL	SBT
Lane Group Flow (vph)	1168	82	958	330	970	1099
v/c Ratio	0.85	0.17	0.70	0.34	1.02	1.24
Control Delay	30.3	6.2	24.8	3.7	50.7	136.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.3	6.2	24.8	3.7	50.7	136.5
Queue Length 50th (ft)	160	0	125	0	~387	~582
Queue Length 95th (ft)	#230	28	166	29	#658	#817
Internal Link Dist (ft)	970		693			1282
Turn Bay Length (ft)		175				
Base Capacity (vph)	1372	475	1372	976	955	886
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.17	0.70	0.34	1.02	1.24

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	466	47	182	546	870	586
v/c Ratio	0.92	0.09	1.42	0.37	1.04	0.69
Control Delay	52.0	1.3	258.2	15.6	64.3	15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.0	1.3	258.2	15.6	64.3	15.1
Queue Length 50th (ft)	194	0	~108	84	~415	126
Queue Length 95th (ft)	#363	5	#223	121	#622	242
Internal Link Dist (ft)	1415			361	1338	
Turn Bay Length (ft)			150			725
Base Capacity (vph)	507	503	128	1459	835	845
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.09	1.42	0.37	1.04	0.69

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	WBL	WBT	NBL	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	1098	177	321	21	176	574	587	39
v/c Ratio	1.11	1.30	0.22	0.18	0.79	0.90	0.91	0.06
Control Delay	93.2	196.1	25.9	39.4	38.0	42.7	44.4	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	93.2	196.1	25.9	39.4	38.0	42.7	44.4	0.2
Queue Length 50th (ft)	~335	~127	77	10	23	272	280	0
Queue Length 95th (ft)	#460	m#168	m93	32	#122	#470	#484	0
Internal Link Dist (ft)	980		1139				1358	
Turn Bay Length (ft)		200				1000		255
Base Capacity (vph)	989	136	1469	115	224	662	667	711
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.11	1.30	0.22	0.18	0.79	0.87	0.88	0.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	WBT	WBR	NBL	NBT
Lane Group Flow (vph)	1664	490	1070	812	148	418
v/c Ratio	0.62	0.46	0.40	0.66	0.29	0.84
Control Delay	13.0	2.7	10.6	4.0	17.9	34.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.0	2.7	10.6	4.0	17.9	34.6
Queue Length 50th (ft)	173	0	95	0	43	134
Queue Length 95th (ft)	221	43	125	53	85	#273
Internal Link Dist (ft)	693		840			1223
Turn Bay Length (ft)						
Base Capacity (vph)	2689	1054	2689	1228	585	557
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.46	0.40	0.66	0.25	0.75

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Intersection Delay, s/veh	404.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	360	902	0	0	569	556	123	3	252	0	0	0
Future Vol, veh/h	360	902	0	0	569	556	123	3	252	0	0	0
Peak Hour Factor	0.86	0.92	0.86	0.92	0.92	0.92	0.86	0.86	0.92	0.92	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	419	980	0	0	618	604	143	3	274	0	0	0
Number of Lanes	2	1	0	0	1	0	1	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	162.1	811.8	29.1
HCM LOS	F	F	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1
Vol Left, %	100%	5%	100%	100%	0%	0%
Vol Thru, %	0%	1%	0%	0%	100%	51%
Vol Right, %	0%	94%	0%	0%	0%	49%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	111	267	180	180	902	1125
LT Vol	111	12	180	180	0	0
Through Vol	0	3	0	0	902	569
RT Vol	0	252	0	0	0	556
Lane Flow Rate	129	292	209	209	980	1223
Geometry Grp	8	8	7	7	7	8
Degree of Util (X)	0.324	0.643	0.433	0.433	1.427	2.749
Departure Headway (Hd)	12.681	11.435	9.402	9.402	7.078	8.675
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	286	318	385	385	520	428
Service Time	10.381	9.135	7.102	7.102	4.778	6.375
HCM Lane V/C Ratio	0.451	0.918	0.543	0.543	1.885	2.857
HCM Control Delay	21.3	32.6	19.1	19.1	223.2	811.8
HCM Lane LOS	C	D	C	C	F	F
HCM 95th-tile Q	1.4	4.2	2.1	2.1	34.9	95.2



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	1192	7	63	1898	210	1479
v/c Ratio	0.69	0.01	0.36	0.88	0.20	2.00
Control Delay	17.5	10.2	38.9	19.6	21.7	474.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.5	10.2	38.9	19.6	21.7	474.2
Queue Length 50th (ft)	191	1	30	373	40	~1055
Queue Length 95th (ft)	m255	m1	62	441	63	#1226
Internal Link Dist (ft)	1139			2865	1665	
Turn Bay Length (ft)		100	300			420
Base Capacity (vph)	1732	776	327	2188	1054	739
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.01	0.19	0.87	0.20	2.00

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	462	455	418	639	1391	1298	623
v/c Ratio	0.88	0.91	0.80	1.52	0.67	1.22	0.68
Control Delay	49.6	52.7	35.6	257.9	26.9	138.9	6.6
Queue Delay	0.0	0.0	0.0	0.0	22.3	0.0	0.0
Total Delay	49.6	52.7	35.6	257.9	49.2	138.9	6.6
Queue Length 50th (ft)	253	256	180	~537	455	~482	0
Queue Length 95th (ft)	#428	#447	#334	m#408	m362	#613	84
Internal Link Dist (ft)		1410			404	1540	
Turn Bay Length (ft)				285			400
Base Capacity (vph)	552	528	545	421	2086	1062	915
Starvation Cap Reductn	0	0	0	0	739	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.86	0.77	1.52	1.03	1.22	0.68

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	463	607	1473	809	467	1600
v/c Ratio	1.01	1.39	1.29	0.90	1.01	0.72
Control Delay	80.3	215.4	165.5	22.2	56.4	5.6
Queue Delay	37.1	7.5	0.0	0.0	0.0	2.6
Total Delay	117.4	222.9	165.5	22.2	56.4	8.1
Queue Length 50th (ft)	~283	~476	~566	120	~217	93
Queue Length 95th (ft)	#489	#695	#700	#398	m197	m103
Internal Link Dist (ft)		1071	1124			404
Turn Bay Length (ft)	900					
Base Capacity (vph)	457	438	1143	903	461	2226
Starvation Cap Reductn	0	0	0	0	0	483
Spillback Cap Reductn	229	209	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	2.03	2.65	1.29	0.90	1.01	0.92

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

APPENDIX 8.7:

HORIZON YEAR (2040) WITHOUT PROJECT CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/16/19
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2040) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-71 SB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	17
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Southbound, N of Central	4275	3
2	Diverge	Diverge	Central SB Off-Ramp	1500	3
3	Basic	Basic	Cetnral SB Off-Ramp to Loop On-Ramp	1125	3
4	Merge	Merge	Central SB Loop On-Ramp	1500	3
5	Basic	Basic	Central SB Loop On-Ramp to On-Ramp	1025	3
6	Merge	Merge	Central SB On-Ramp	1500	3
7	Basic	Basic	Southbound, Central to Pine	5500	2
8	Diverge	Diverge	Pine SB Off-Ramp	1500	2
9	Basic	Basic	Pine SB Off-Ramp to On-Ramp	2315	2
10	Merge	Merge	Pine SB On-Ramp	1500	2
11	Basic	Basic	Southbound, Pine to Euclid	4500	2
12	Diverge	Diverge	Euclid SB Off-Ramp	1500	2
13	Basic	Basic	Euclid SB Off-Ramp to Loop On-Ramp	1460	2
14	Merge	Merge	Euclid SB Loop On-Ramp	1500	2
15	Basic	Basic	Euclid SB Loop On-Ramp to On-Ramp	1200	2
16	Merge	Merge	Euclid SB On-Ramp	1500	2
17	Basic	Basic	Southbound, S of Euclid	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.922	2485	7131	0.35	67.7	12.2	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	

1	0.92	0.92	0.922	0.870	2485	740	7200	2100	0.35	0.35	63.1	59.8	13.1	19.0	B
Segment 3: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.948		1738		7116		0.24		67.2		8.6		A
Segment 4: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.948	0.926	2348	610	7200	1900	0.33	0.32	63.3	61.0	12.4	15.5	B
Segment 5: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.939		2357		7116		0.33		67.2		11.7		B
Segment 6: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.939	0.794	2371	14	7200	2100	0.33	0.01	64.1	61.5	12.3	14.3	B
Segment 7: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.939		2368		4726		0.50		66.3		17.9		B
Segment 8: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.939	0.990	2368	629	4800	2100	0.49	0.30	60.1	60.1	19.7	23.1	C
Segment 9: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.922		1737		4718		0.37		65.9		13.2		B
Segment 10: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.922	1.000	2022	285	4800	2100	0.42	0.14	61.2	61.2	16.5	18.7	B
Segment 11: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.931		2026		4726		0.43		66.3		15.3		B
Segment 12: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**

	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.931	0.909	2026	853	4800	2100	0.42	0.41	59.5	59.5	17.0	20.4	C

Segment 13: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.957	1161	4744	0.24	67.2	8.6	A

Segment 14: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.957	0.935	2513	1352	4800	1900	0.52	0.71	60.4	60.4	20.8	21.3	C

Segment 15: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.939	2529	4744	0.53	67.2	18.8	C

Segment 16: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.939	0.952	3948	1419	4800	2100	0.82	0.68	56.5	56.5	34.9	32.9	D

Segment 17: Basic

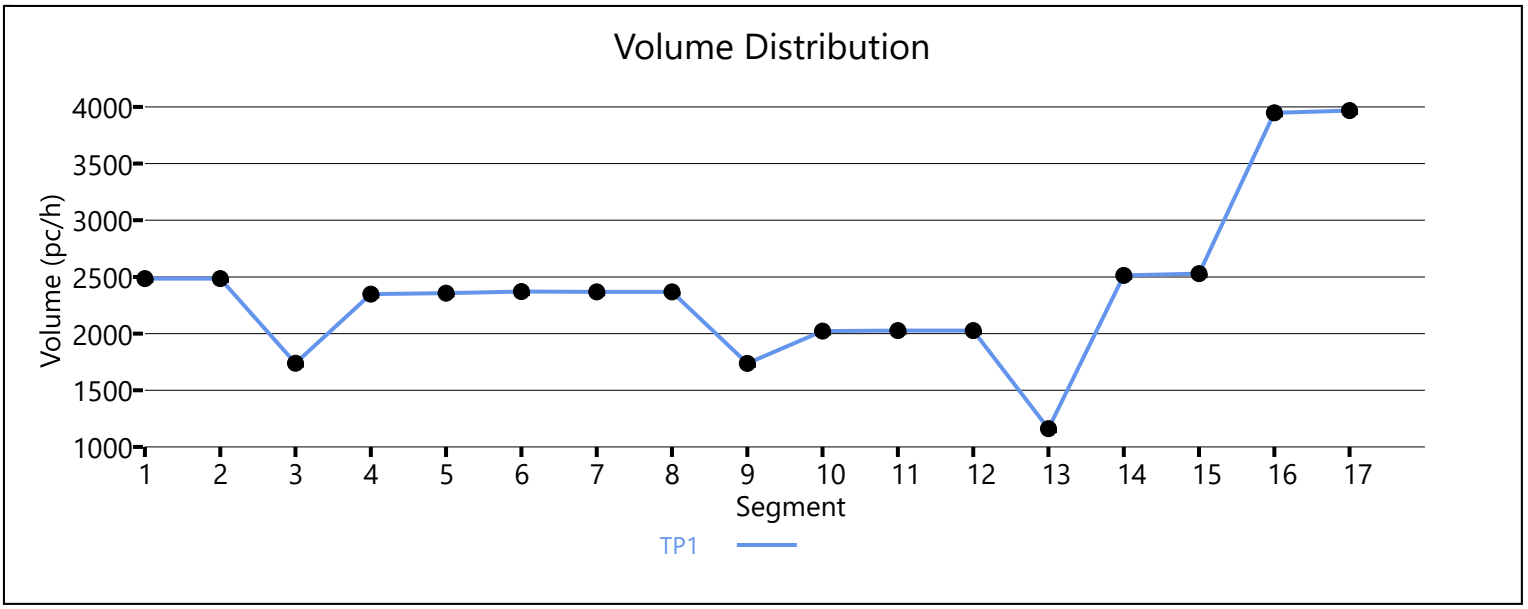
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.939	3968	4554	0.87	55.9	35.5	E

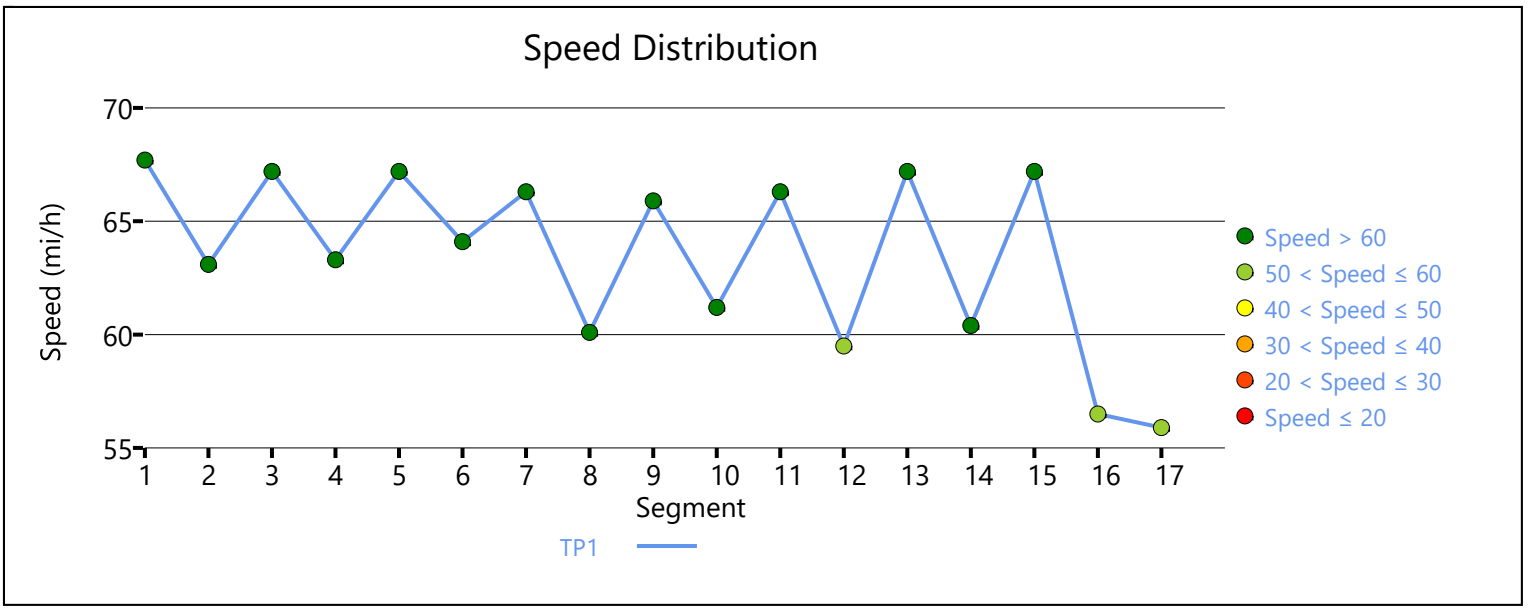
Facility Time Period Results

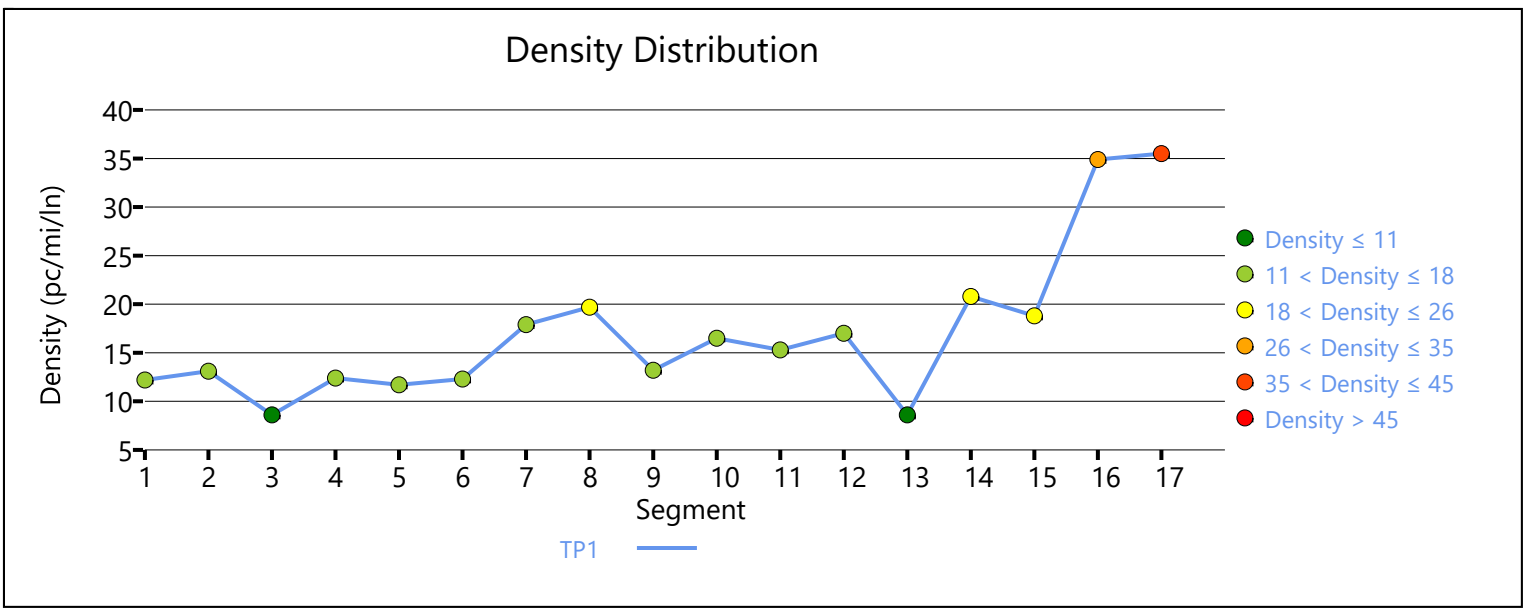
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	62.2	17.7	16.5	7.1	B

Facility Overall Results

Space Mean Speed, mi/h	62.2	Density, veh/mi/ln	16.5
Average Travel Time, min	7.1	Density, pc/mi/ln	17.7







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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/16/19
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2040) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-71 NB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	15
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Northbound, S of Euclid	5280	3
2	Diverge	Basic	Euclid NB Off-Ramp	1500	3
3	Basic	Basic	Euclid NB Off-Ramp to On-Ramp	1500	2
4	Merge	Merge	Euclid NB On-Ramp	1500	2
5	Basic	Basic	Northbound, Euclid to Pine	4500	2
6	Diverge	Diverge	Pine NB Off-Ramp	1500	2
7	Basic	Basic	Pine NB Off-Ramp to On-Ramp	2225	2
8	Merge	Basic	Pine NB On-Ramp	1500	2
9	Basic	Basic	Northbound, Pine to Central	5500	3
10	Diverge	Diverge	Central NB Off-Ramp	1500	3
11	Basic	Basic	Central NB Off-Ramp to Loop On-Ramp	1050	3
12	Merge	Merge	Central NB Loop On-Ramp	1500	3
13	Basic	Basic	Central NB Loop On-Ramp to On-Ramp	1040	3
14	Merge	Merge	Central NB On-Ramp	1500	3
15	Basic	Basic	Northbound, N of Central	4275	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.781	2745	6831	0.40	57.7	15.9	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.781	0.855	2745	843	7200	4200	0.38	0.20	70.0	-	13.1	-	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.746		1907		4754		0.40		67.7		14.1		B
Segment 4: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.746	0.855	2479	572	4800	1900	0.52	0.30	60.6	60.6	20.5	20.4	C
Segment 5: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.775		2467		4736		0.52		66.8		18.5		C
Segment 6: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.775	1.000	2467	379	4800	2100	0.51	0.18	60.7	60.7	20.3	24.2	C
Segment 7: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.730		2099		4726		0.44		66.3		15.8		B
Segment 8: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.730	0.990	3230	1131	4800	2100	0.44	0.54	70.0	-	15.0	-	B
Segment 9: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.820		3234		7089		0.46		66.3		16.3		B
Segment 10: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.820	0.935	3234	571	7200	2100	0.45	0.27	64.2	60.2	16.8	23.2	C
Segment 11: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.794		2668		7116		0.37		67.2		13.2		B
Segment 12: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.794	0.909	3027	359	7200	1900	0.42	0.19	63.3	61.0	15.9	17.2	B

Segment 13: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.813	3007	7116	0.42	67.2	14.9	B

Segment 14: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.813	0.826	3557	550	7200	2100	0.49	0.26	63.1	61.1	18.8	20.5	C

Segment 15: Basic

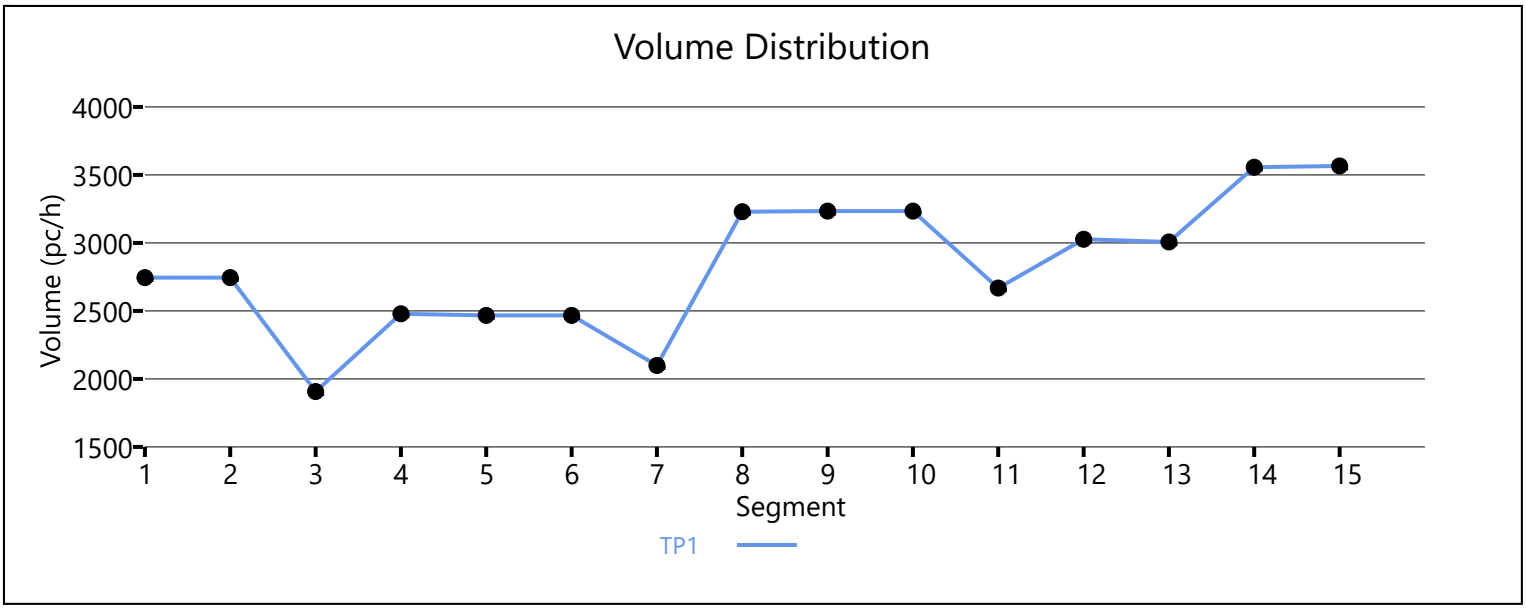
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.813	3566	7131	0.50	67.7	17.6	B

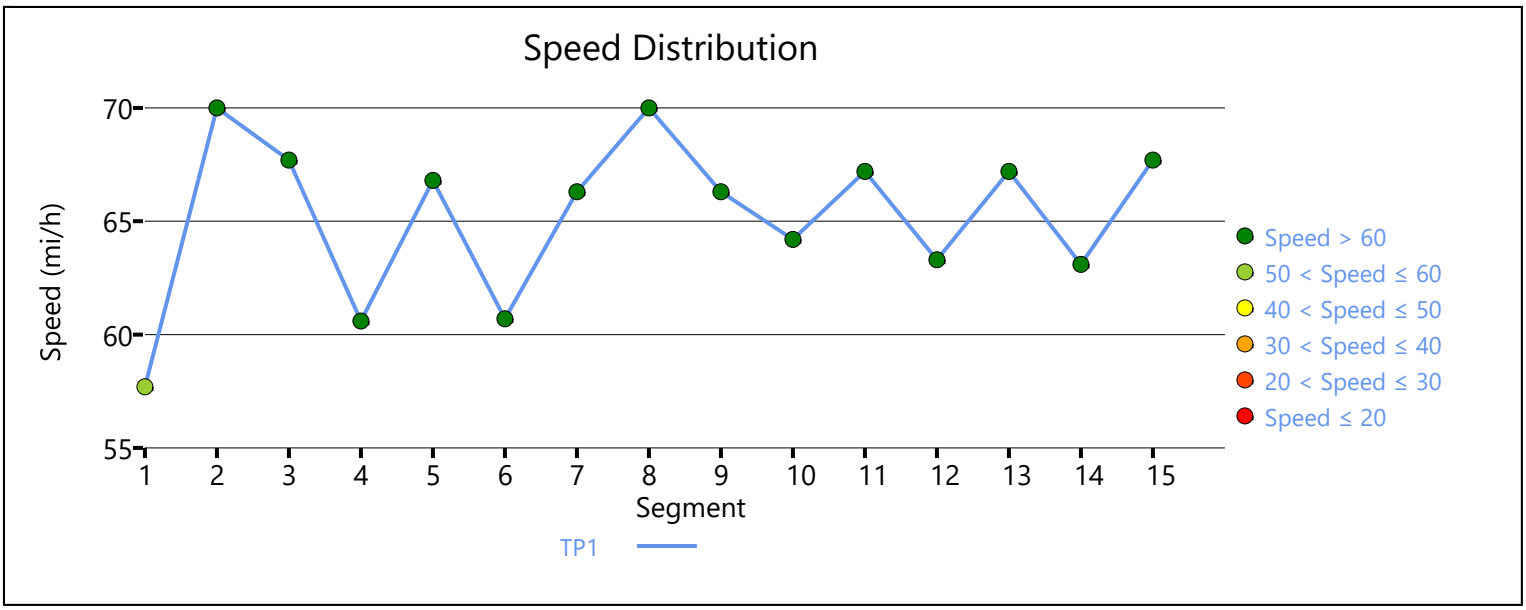
Facility Time Period Results

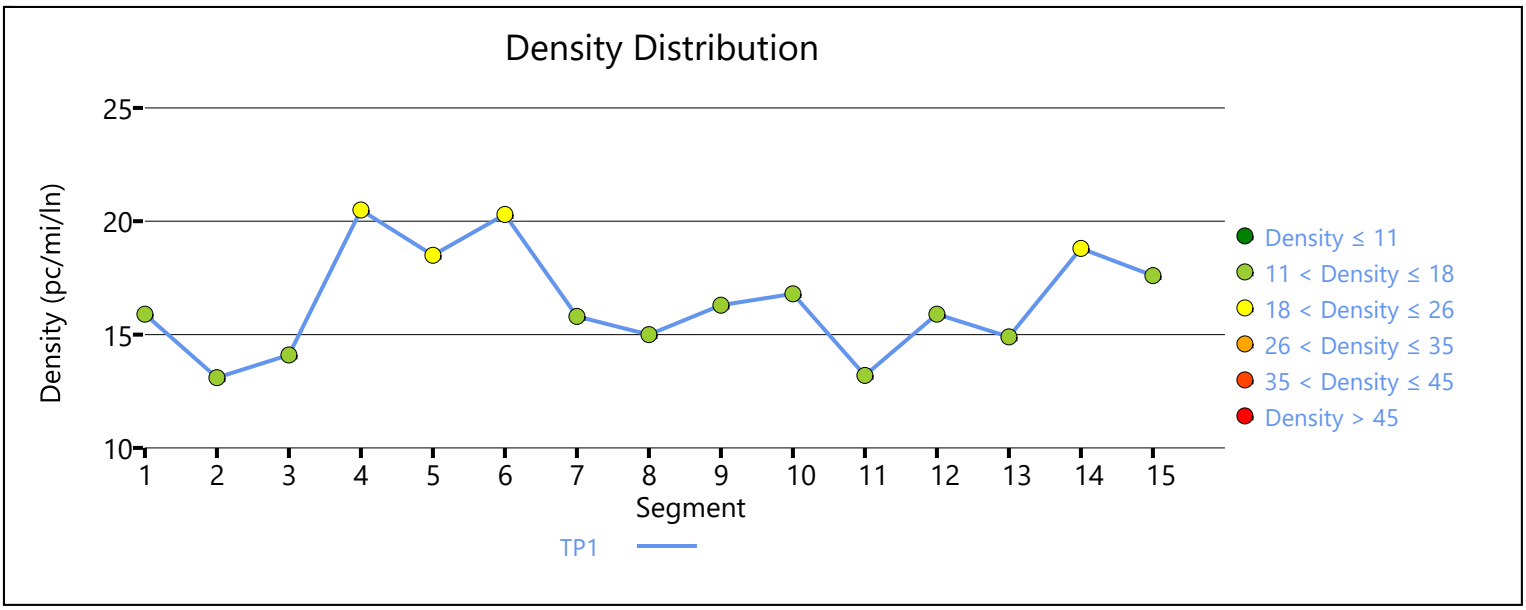
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	64.8	16.6	13.1	6.3	B

Facility Overall Results

Space Mean Speed, mi/h	64.8	Density, veh/mi/ln	13.1
Average Travel Time, min	6.3	Density, pc/mi/ln	16.6







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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/16/19
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2040) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-60 WB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Euclid	2500	4
2	Diverge	Diverge	Off-Ramp at Euclid	1500	4
3	Basic	Basic	Between	2200	4
4	Merge	Merge	On-Ramp at Euclid	1500	4
5	Basic	Basic	West of Euclid	1500	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	8798	9548	0.92	57.8	38.1	E

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.862	8798	1697	9600	2100	0.92	0.81	63.6	57.4	34.6	41.3	E

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	7072	9548	0.74	65.5	27.0	D

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.870	8478	1406	9600	2100	0.88	0.67	59.8	56.0	35.4	31.7	D

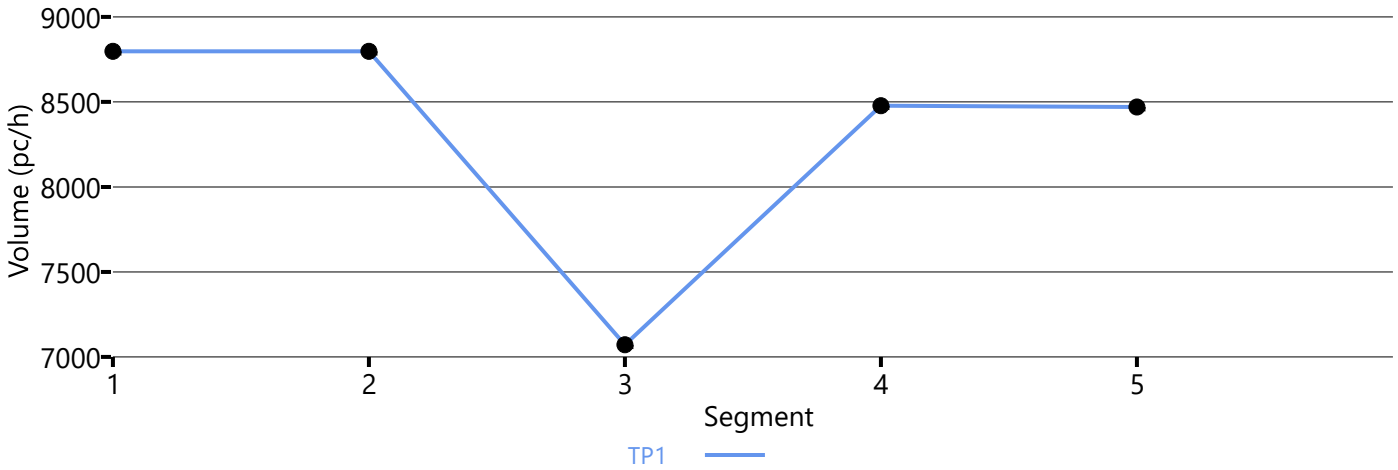
Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	8470	9548	0.89	59.6	35.5	E

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	60.9	34.0	33.1	1.7	D

Facility Overall Results			
Space Mean Speed, mi/h	60.9	Density, veh/mi/ln	33.1
Average Travel Time, min	1.7	Density, pc/mi/ln	34.0

Volume Distribution



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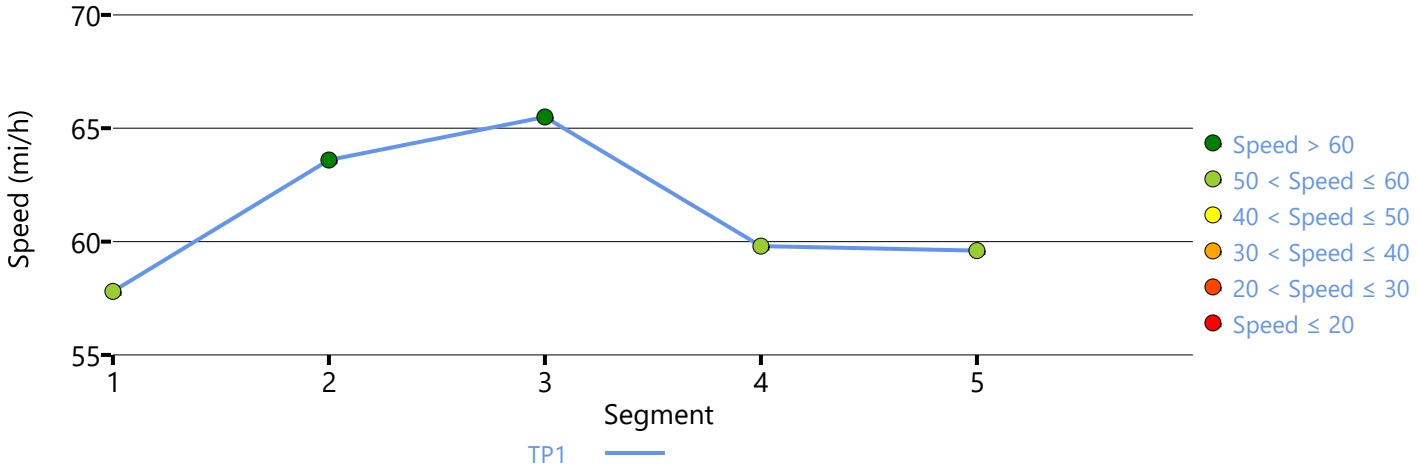
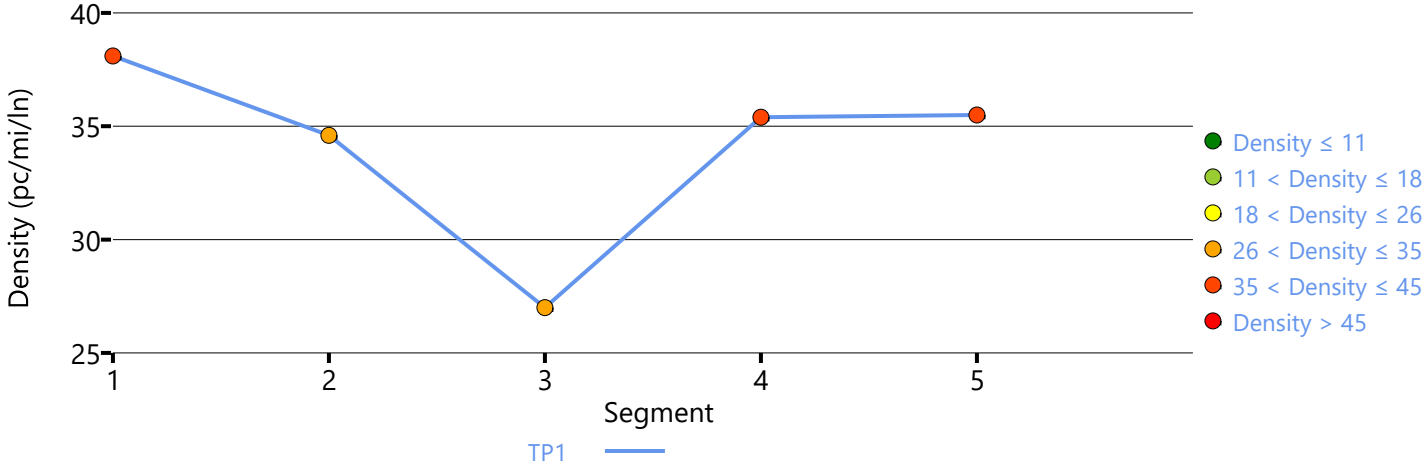


Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/16/19
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2040) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-60 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Euclid	1370	4
2	Diverge	Diverge	Off-Ramp at Euclid	1500	4
3	Basic	Basic	Between	2100	4
4	Merge	Merge	On-Ramp at Euclid	1500	4
5	Basic	Basic	East of Euclid	3000	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.917	8098	9548	0.85	61.5	32.9	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.917	0.862	8098	1391	9600	2100	0.84	0.66	64.4	58.2	31.4	36.4	E

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.935	6660	9548	0.70	66.6	25.0	C

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.935	0.870	8315	1655	9600	2100	0.87	0.79	59.5	55.4	34.9	32.0	D

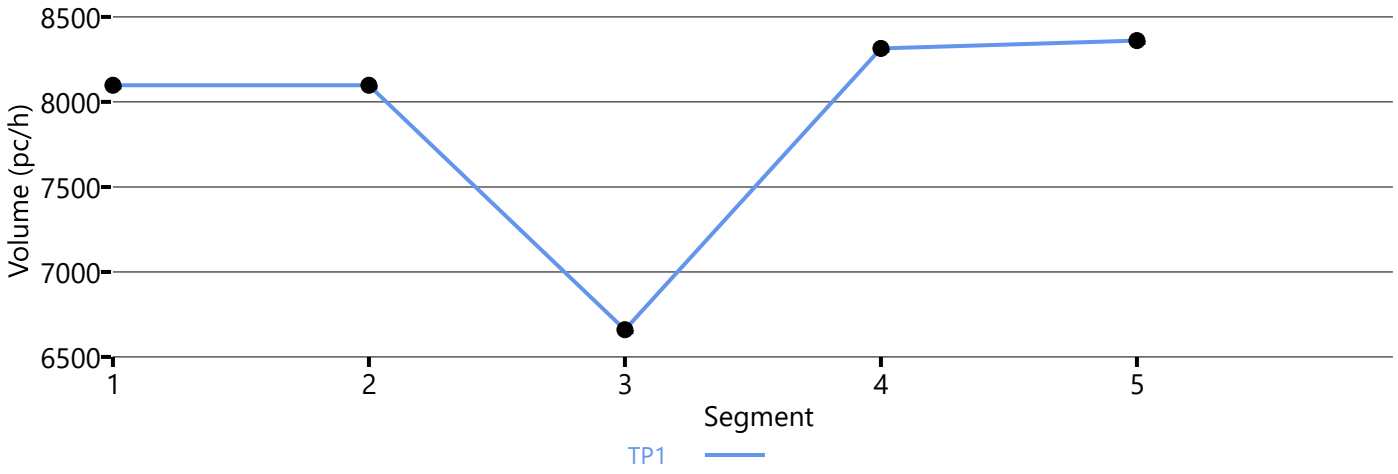
Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.917	8361	9548	0.88	60.2	34.7	D

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	62.1	31.8	29.4	1.7	D

Facility Overall Results			
Space Mean Speed, mi/h	62.1	Density, veh/mi/ln	29.4
Average Travel Time, min	1.7	Density, pc/mi/ln	31.8

Volume Distribution



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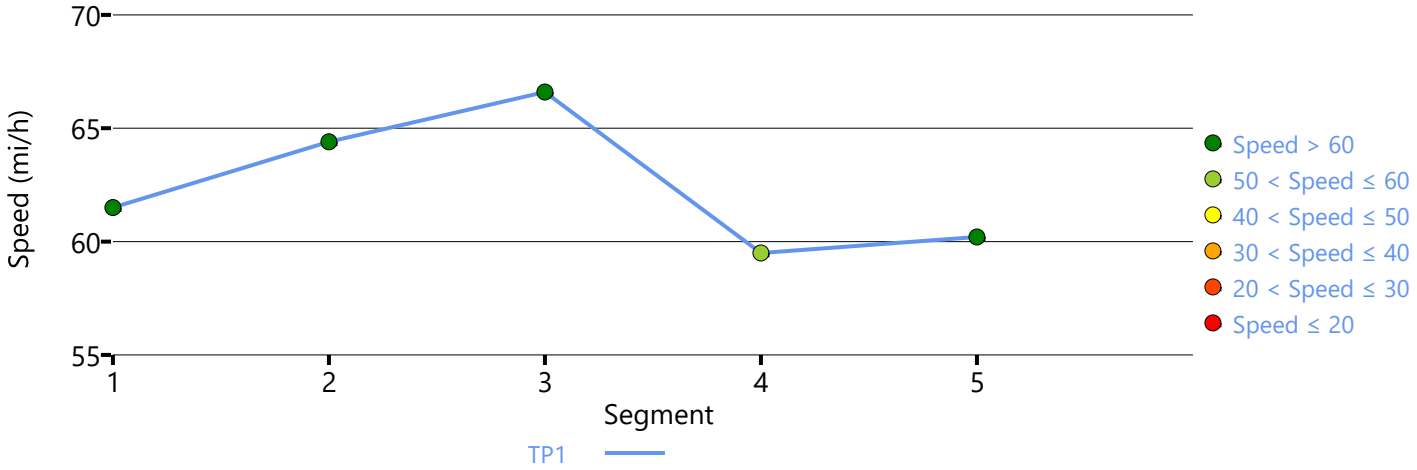
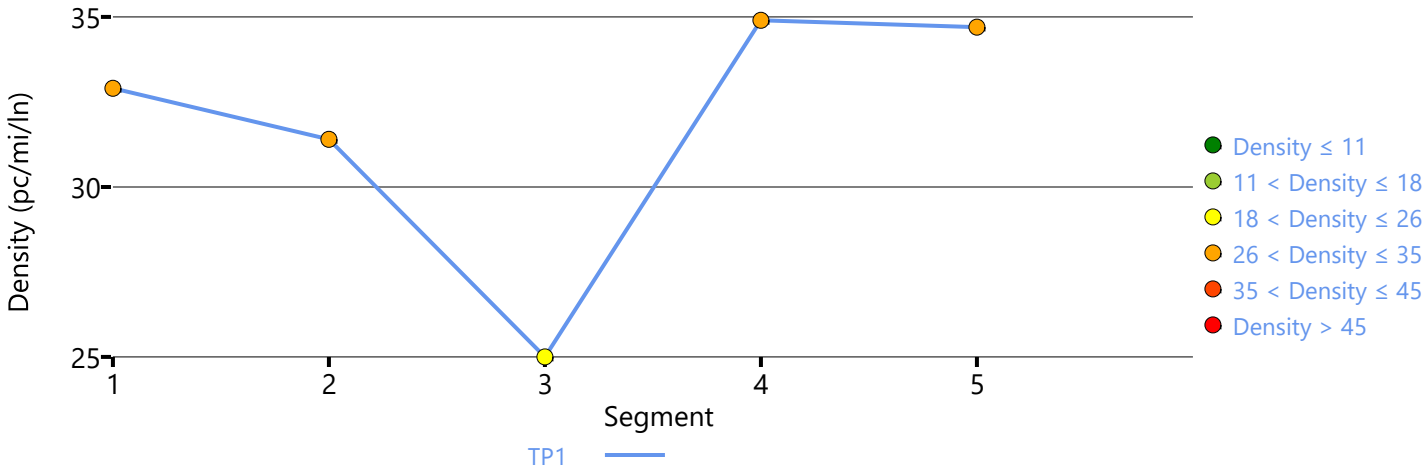


Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/16/19
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2040) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-71 SB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	17
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Southbound, N of Central	4275	3
2	Diverge	Diverge	Central SB Off-Ramp	1500	3
3	Basic	Basic	Cetnral SB Off-Ramp to Loop On-Ramp	1125	3
4	Merge	Merge	Central SB Loop On-Ramp	1500	3
5	Basic	Basic	Central SB Loop On-Ramp to On-Ramp	1025	3
6	Merge	Merge	Central SB On-Ramp	1500	3
7	Basic	Basic	Southbound, Central to Pine	5500	2
8	Diverge	Diverge	Pine SB Off-Ramp	1500	2
9	Basic	Basic	Pine SB Off-Ramp to On-Ramp	2315	2
10	Merge	Merge	Pine SB On-Ramp	1500	2
11	Basic	Basic	Southbound, Pine to Euclid	4500	2
12	Diverge	Diverge	Euclid SB Off-Ramp	1500	2
13	Basic	Basic	Euclid SB Off-Ramp to Loop On-Ramp	1460	2
14	Merge	Merge	Euclid SB Loop On-Ramp	1500	2
15	Basic	Basic	Euclid SB Loop On-Ramp to On-Ramp	1200	2
16	Merge	Merge	Euclid SB On-Ramp	1500	2
17	Basic	Basic	Southbound, S of Euclid	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.922	3888	7131	0.55	67.7	19.1	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	

1	0.92	0.92	0.922	0.870	3888	930	7200	2100	0.54	0.44	63.4	59.3	20.4	26.4	C
Segment 3: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.948		2958		7116		0.41		66.7		14.1		B
Segment 4: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.948	0.971	3612	654	7200	1900	0.50	0.34	62.6	60.4	19.2	21.4	C
Segment 5: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.948		3612		7116		0.51		66.6		17.2		B
Segment 6: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.948	0.901	3710	98	7200	2100	0.51	0.05	63.0	60.9	19.6	20.6	C
Segment 7: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.948		3710		4726		0.78		65.0		28.5		D
Segment 8: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.948	0.980	3710	2143	4800	2100	0.77	1.02	53.3	56.3	45.0	34.6	D
Segment 9: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.922		1567		4718		0.32		65.3		11.2		B
Segment 10: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.922	1.000	1850	283	4800	2100	0.38	0.13	61.3	61.3	15.1	17.3	B
Segment 11: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.939		1850		4726		0.38		66.3		13.2		B
Segment 12: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**

	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.939	0.962	1850	1302	4800	2100	0.37	0.62	58.4	58.4	15.8	18.9	B

Segment 13: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.914	548	4744	0.10	66.4	3.9	A

Segment 14: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.914	0.943	2026	1478	4800	1900	0.41	0.78	60.9	60.9	16.6	17.4	B

Segment 15: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.922	2026	4744	0.42	66.5	14.5	B

Segment 16: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.922	0.980	3318	1292	4800	2100	0.68	0.62	59.1	59.1	28.1	28.0	C

Segment 17: Basic

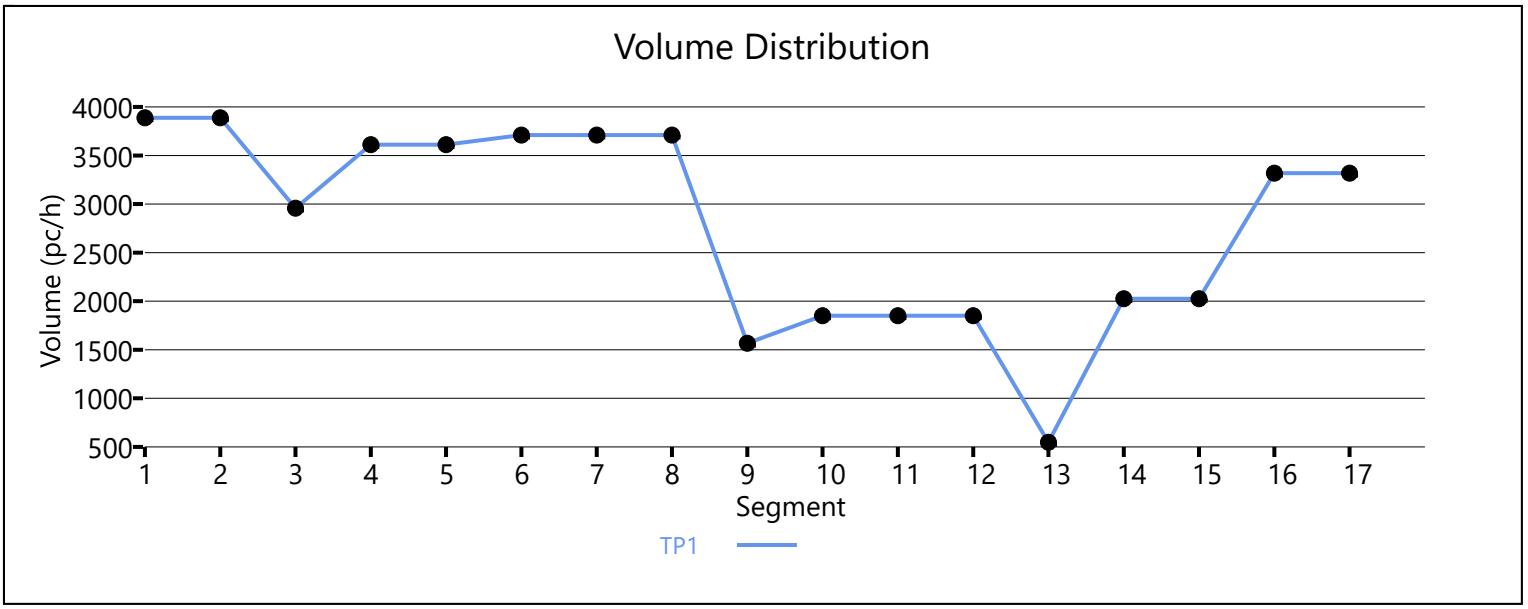
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.939	3318	4554	0.72	57.7	27.7	D

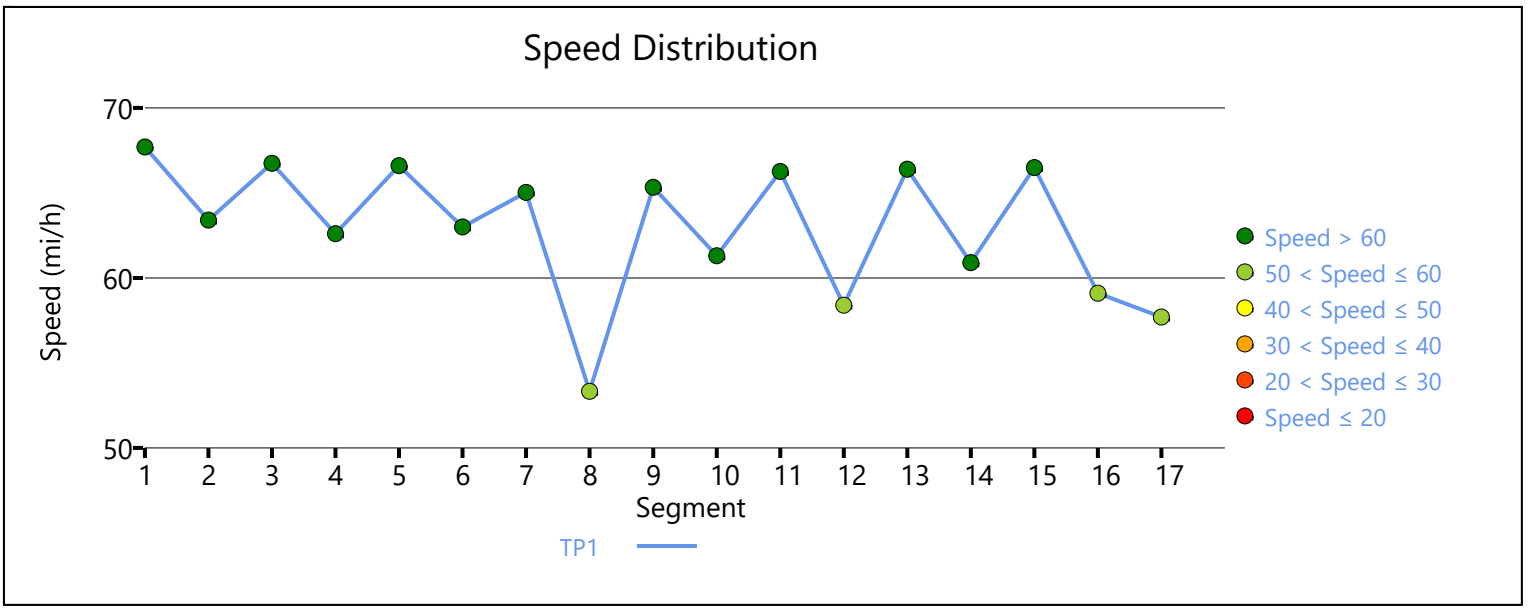
Facility Time Period Results

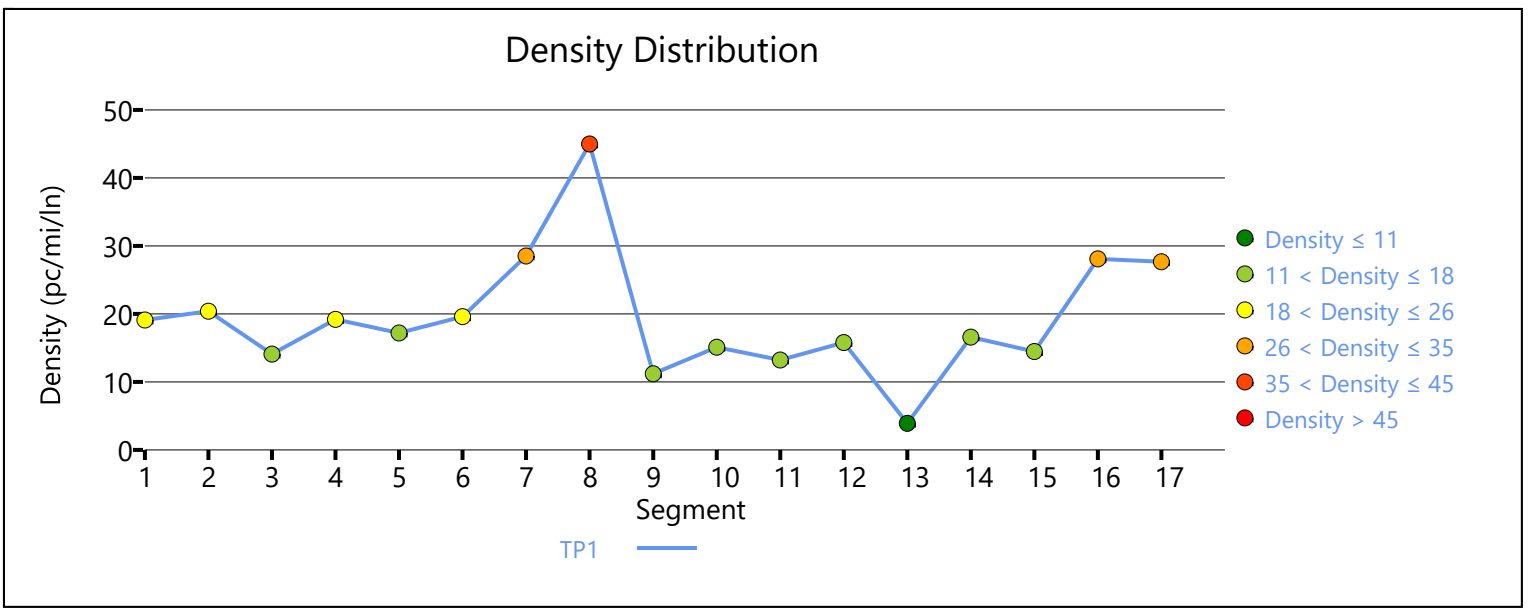
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	62.7	20.3	19.0	7.0	C

Facility Overall Results

Space Mean Speed, mi/h	62.7	Density, veh/mi/ln	19.0
Average Travel Time, min	7.0	Density, pc/mi/ln	20.3







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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/16/19
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2040) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-71 NB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	15
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Northbound, S of Euclid	5280	3
2	Diverge	Basic	Euclid NB Off-Ramp	1500	3
3	Basic	Basic	Euclid NB Off-Ramp to On-Ramp	1500	2
4	Merge	Merge	Euclid NB On-Ramp	1500	2
5	Basic	Basic	Northbound, Euclid to Pine	4500	2
6	Diverge	Diverge	Pine NB Off-Ramp	1500	2
7	Basic	Basic	Pine NB Off-Ramp to On-Ramp	2225	2
8	Merge	Basic	Pine NB On-Ramp	1500	2
9	Basic	Basic	Northbound, Pine to Central	5500	3
10	Diverge	Diverge	Central NB Off-Ramp	1500	3
11	Basic	Basic	Central NB Off-Ramp to Loop On-Ramp	1050	3
12	Merge	Merge	Central NB Loop On-Ramp	1500	3
13	Basic	Basic	Central NB Loop On-Ramp to On-Ramp	1040	3
14	Merge	Merge	Central NB On-Ramp	1500	3
15	Basic	Basic	Northbound, N of Central	4275	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.893	5000	6831	0.73	57.7	28.9	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.893	0.943	5000	1653	7208	4200	0.69	0.39	67.5	-	24.7	-	C

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.862		3372		4754		0.71		65.7		25.7		C
Segment 4: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.862	0.719	3463	91	4800	1900	0.72	0.05	58.5	58.5	29.6	28.3	D
Segment 5: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.862		3447		4736		0.73		64.7		26.6		D
Segment 6: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.862	1.000	3447	992	4800	2100	0.72	0.47	59.2	59.2	29.1	32.6	D
Segment 7: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.806		2456		4726		0.52		66.3		18.5		C
Segment 8: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.806	1.000	3409	953	4800	2100	0.51	0.45	70.0	-	17.5	-	B
Segment 9: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.862		3402		7089		0.48		66.3		17.1		B
Segment 10: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.862	0.926	3402	919	7200	2100	0.47	0.44	63.2	59.3	17.9	24.8	C
Segment 11: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.833		2499		7116		0.35		67.2		12.4		B
Segment 12: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.833	0.962	2940	441	7200	1900	0.41	0.23	63.3	61.0	15.5	17.0	B

Segment 13: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.855	2930	7116	0.41	67.2	14.5	B

Segment 14: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.855	0.935	3667	737	7200	2100	0.51	0.35	62.9	60.9	19.4	21.6	C

Segment 15: Basic

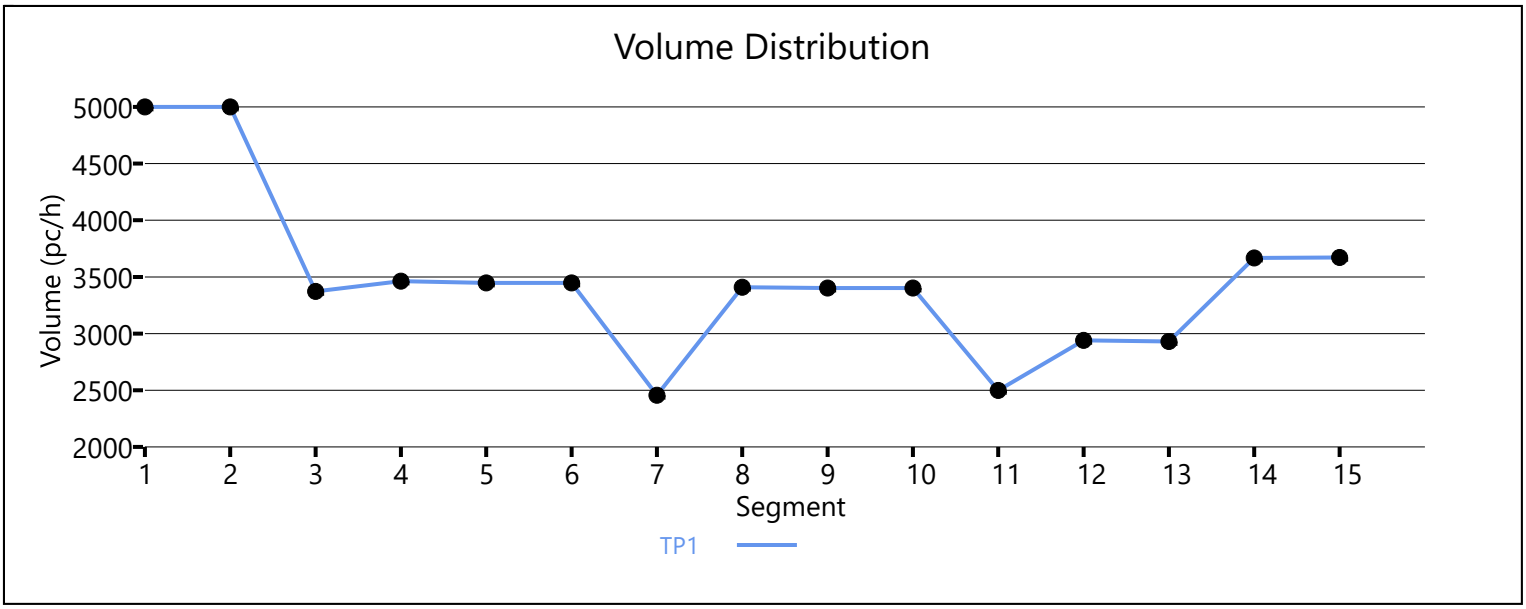
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.870	3672	7131	0.51	67.7	18.1	C

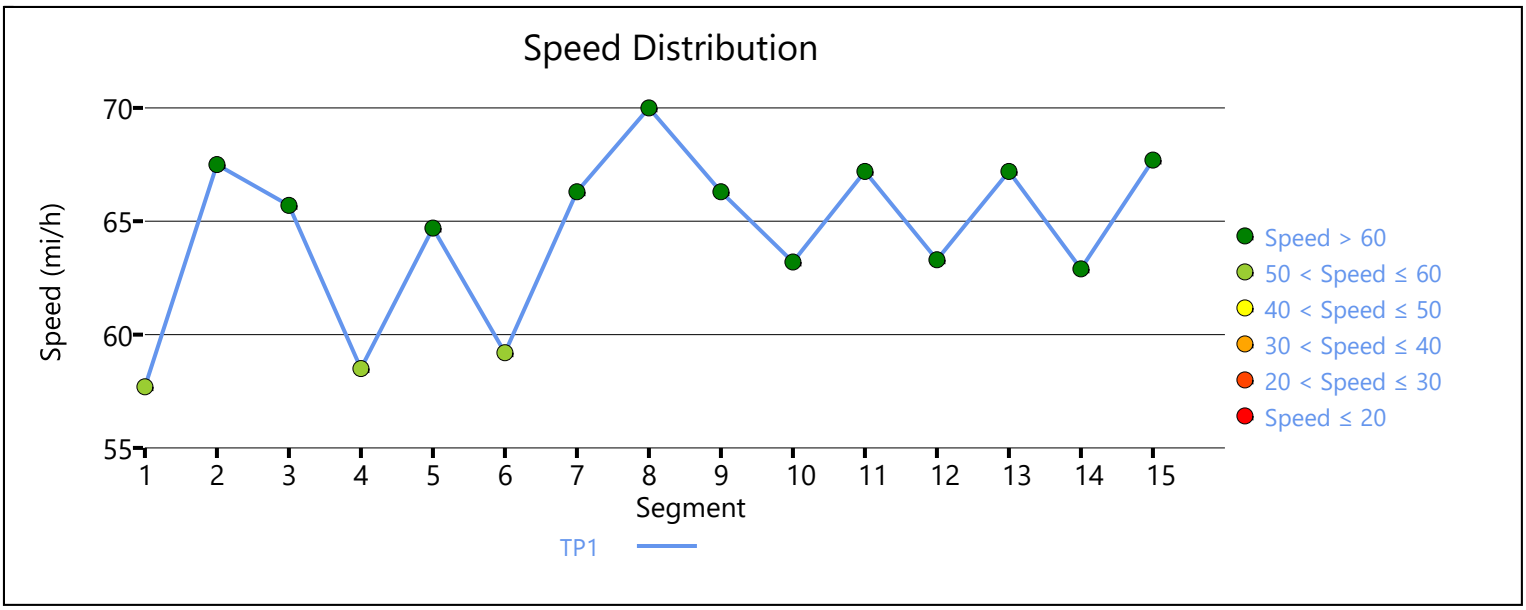
Facility Time Period Results

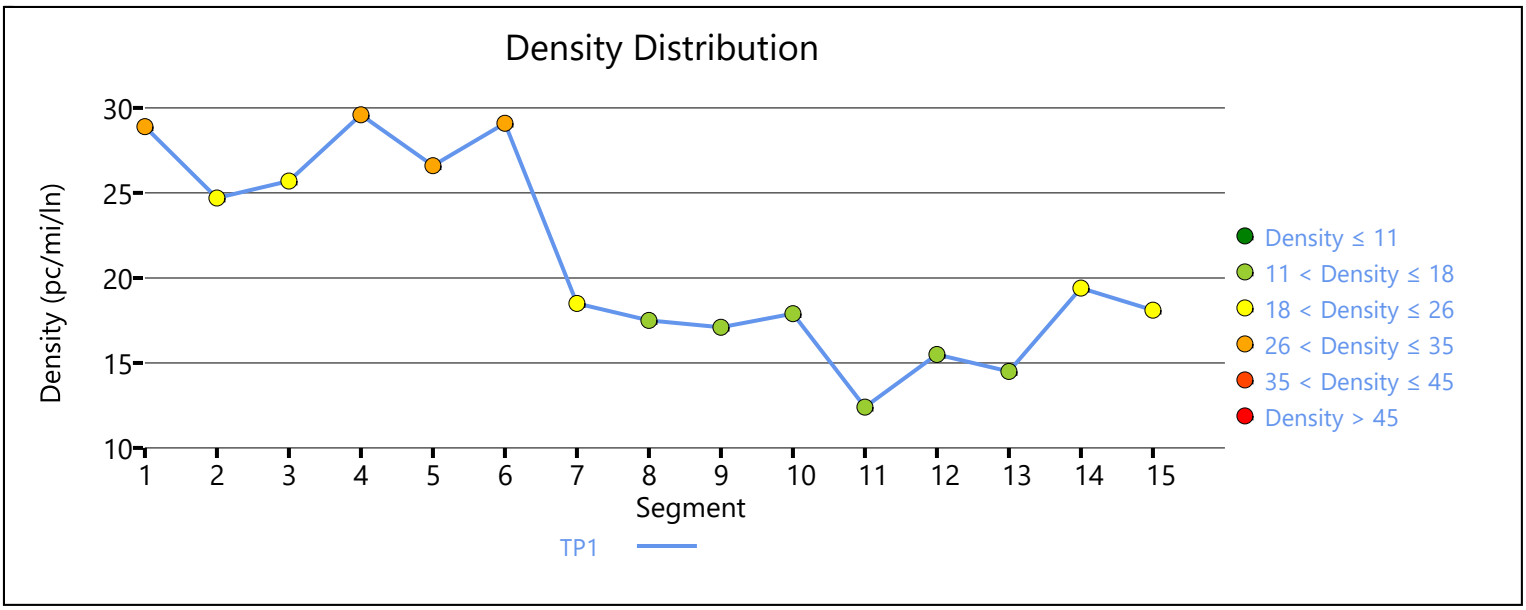
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	63.5	21.4	18.5	6.4	C

Facility Overall Results

Space Mean Speed, mi/h	63.5	Density, veh/mi/ln	18.5
Average Travel Time, min	6.4	Density, pc/mi/ln	21.4







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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/16/19
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2040) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-60 WB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Euclid	2500	4
2	Diverge	Diverge	Off-Ramp at Euclid	1500	4
3	Basic	Basic	Between	2200	4
4	Merge	Merge	On-Ramp at Euclid	1500	4
5	Basic	Basic	West of Euclid	1500	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	9763	9548	1.02	53.0	45.0	F

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.893	9548	1553	9600	2100	1.02	0.74	63.6	57.7	37.5	43.4	F

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	7995	9548	0.86	62.6	31.9	D

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.885	9390	1395	9600	2100	1.00	0.66	57.5	52.7	40.8	34.5	D

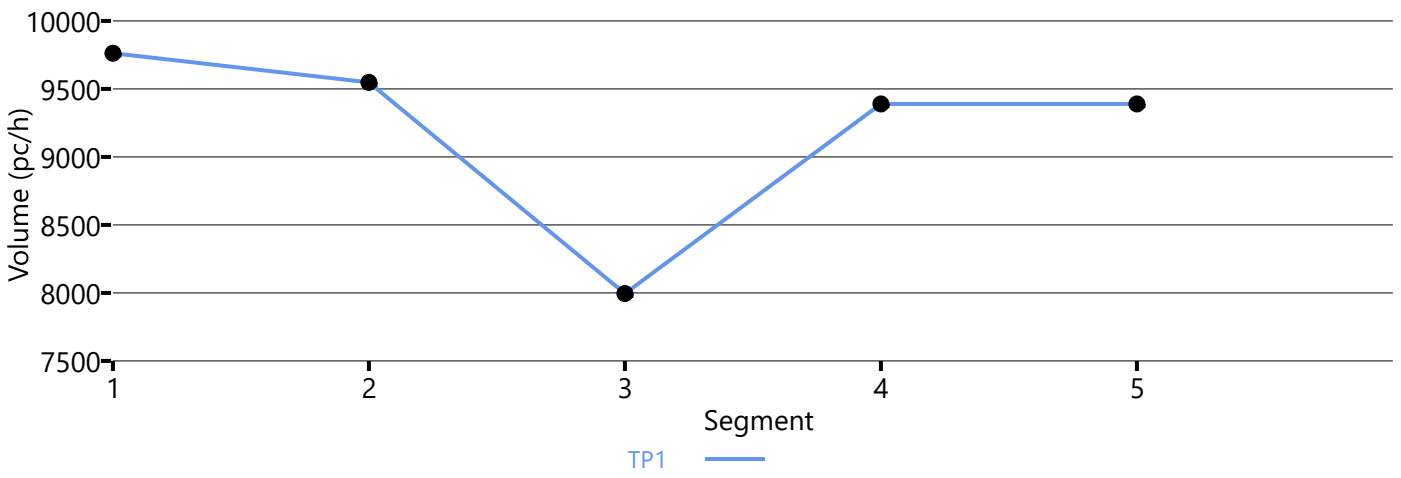
Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	9390	9548	1.00	54.8	42.9	E

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	57.8	39.5	38.3	1.8	F

Facility Overall Results			
Space Mean Speed, mi/h	57.8	Density, veh/mi/ln	38.3
Average Travel Time, min	1.8	Density, pc/mi/ln	39.5

Volume Distribution



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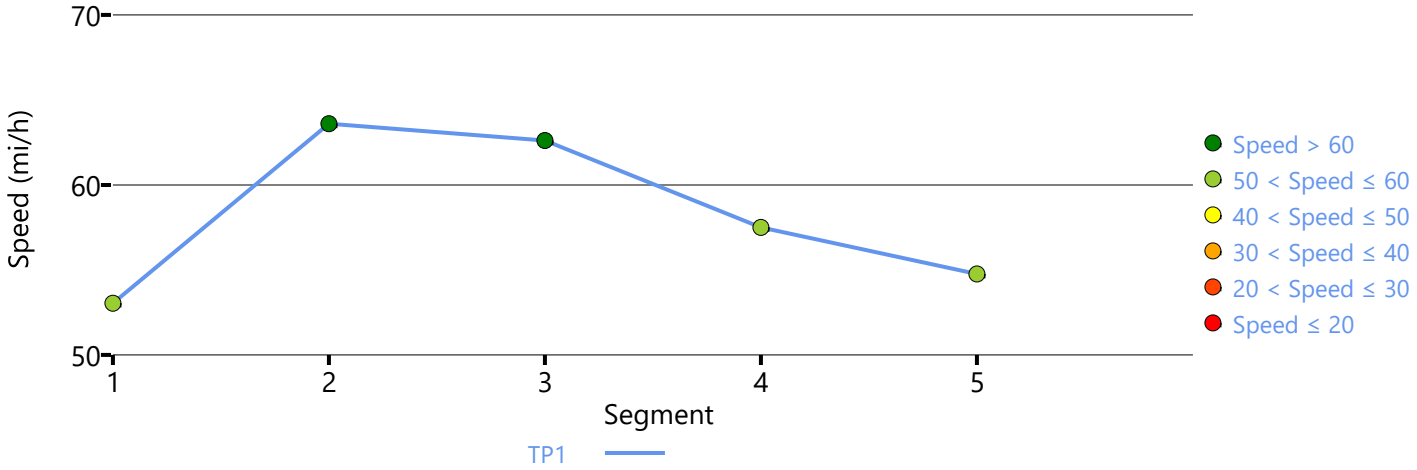
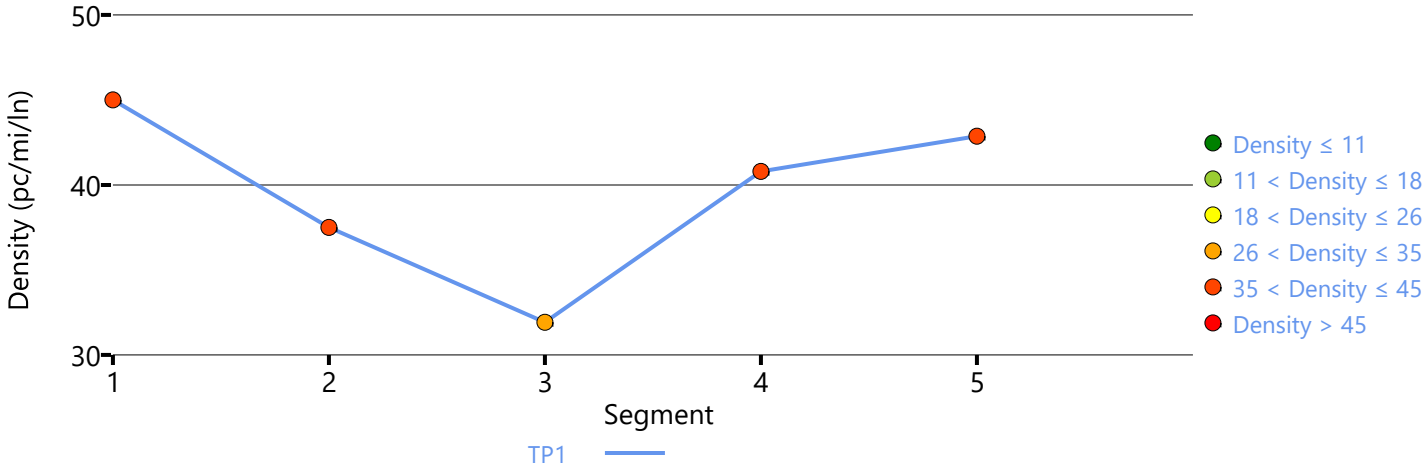


Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/16/19
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2040) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-60 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Euclid	1370	4
2	Diverge	Diverge	Off-Ramp at Euclid	1500	4
3	Basic	Basic	Between	2100	4
4	Merge	Merge	On-Ramp at Euclid	1500	4
5	Basic	Basic	East of Euclid	3000	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	10120	9548	1.06	53.0	45.0	F

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.877	9217	1263	9600	2100	1.05	0.60	46.0	58.5	50.1	43.4	F

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	7735	9548	0.93	30.1	64.3	F

Segment 4: Merge

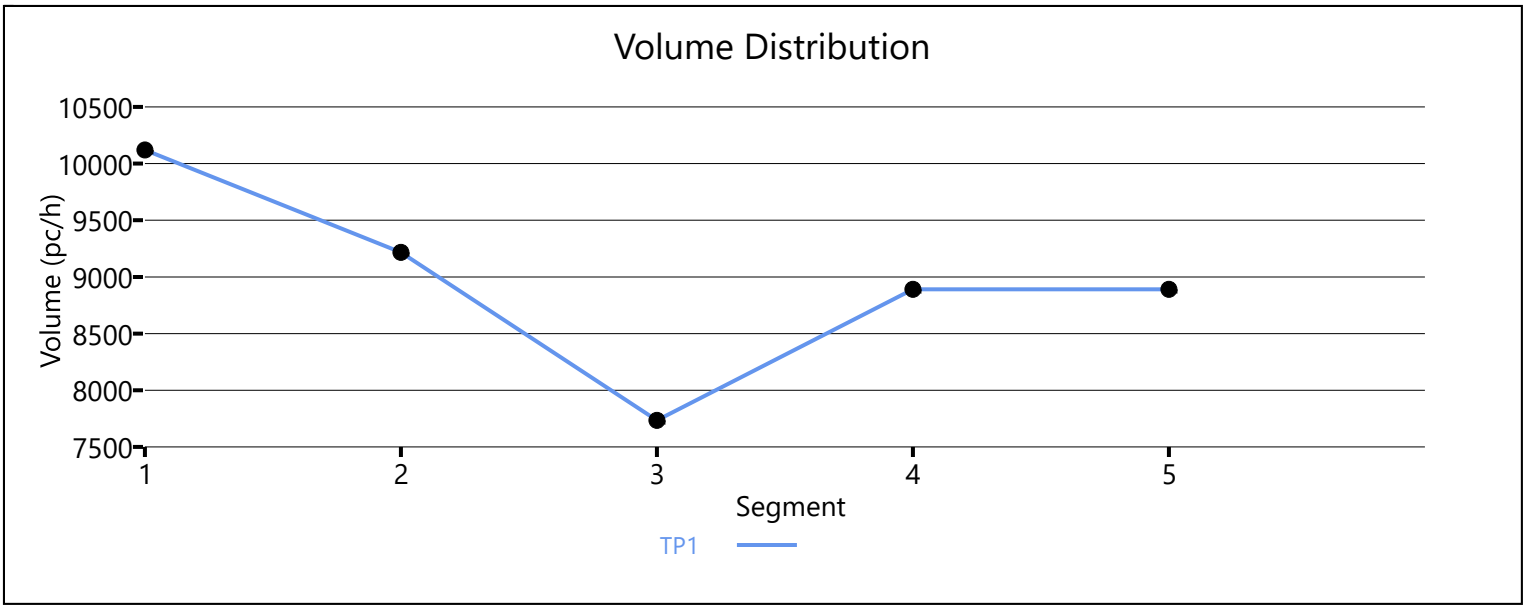
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.901	8891	1495	9600	2100	1.08	0.71	40.2	46.5	55.3	37.8	F

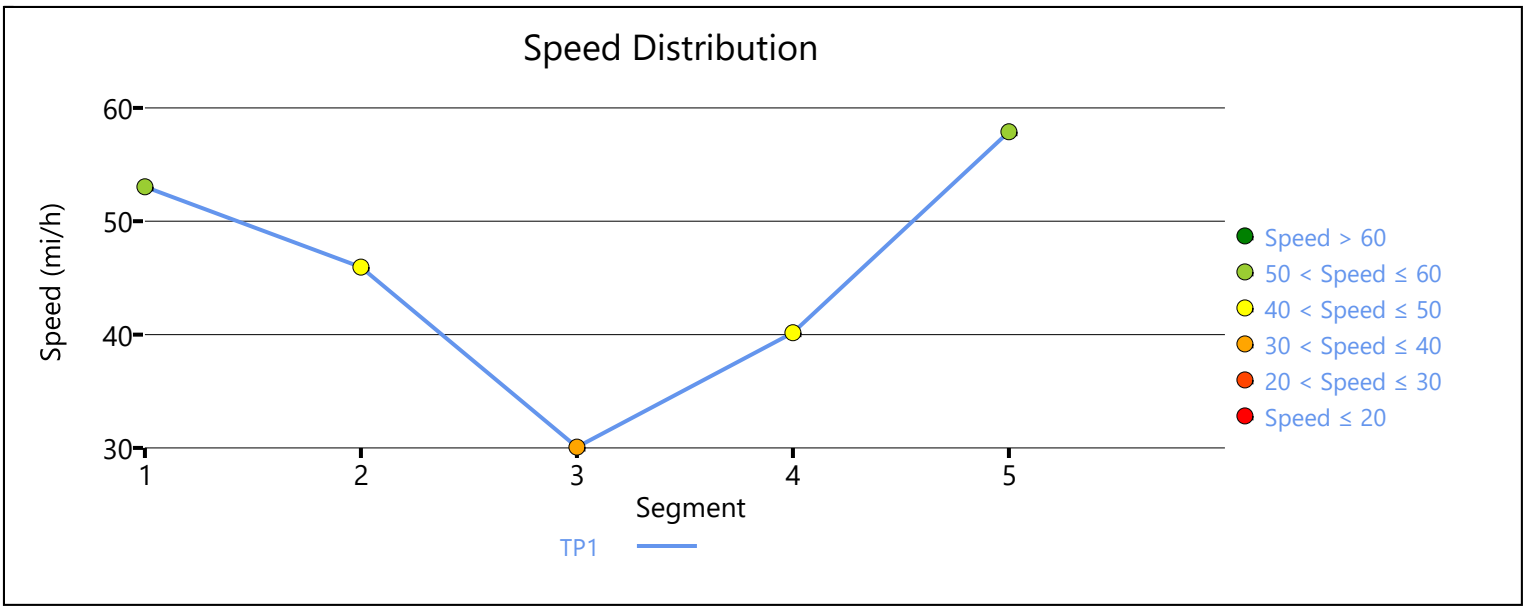
Segment 5: Basic

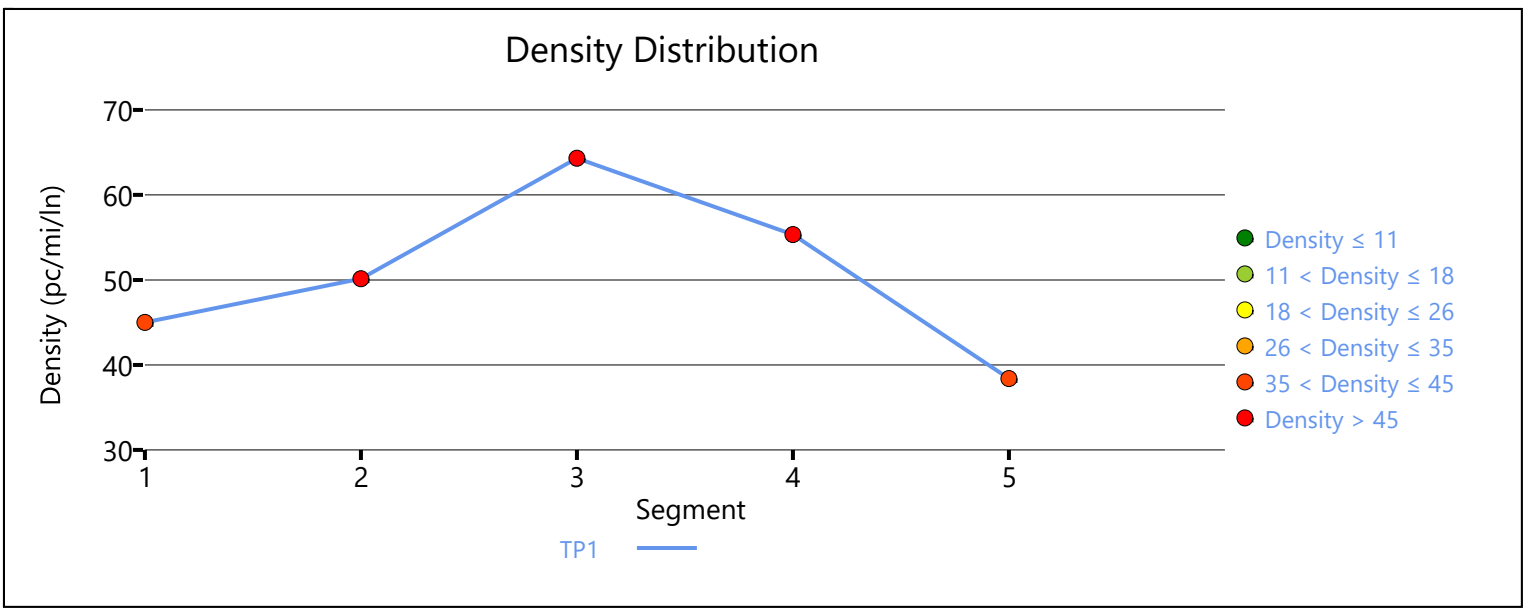
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	8891	9548	1.09	57.9	38.4	F

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	43.4	50.3	49.0	2.5	F

Facility Overall Results			
Space Mean Speed, mi/h	43.4	Density, veh/mi/ln	49.0
Average Travel Time, min	2.5	Density, pc/mi/ln	50.3







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APPENDIX 8.8:

HORIZON YEAR (2040) WITH PROJECT CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/16/19
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2040) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-71 SB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	17
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Southbound, N of Central	4275	3
2	Diverge	Diverge	Central SB Off-Ramp	1500	3
3	Basic	Basic	Cetnral SB Off-Ramp to Loop On-Ramp	1125	3
4	Merge	Merge	Central SB Loop On-Ramp	1500	3
5	Basic	Basic	Central SB Loop On-Ramp to On-Ramp	1025	3
6	Merge	Merge	Central SB On-Ramp	1500	3
7	Basic	Basic	Southbound, Central to Pine	5500	2
8	Diverge	Diverge	Pine SB Off-Ramp	1500	2
9	Basic	Basic	Pine SB Off-Ramp to On-Ramp	2315	2
10	Merge	Merge	Pine SB On-Ramp	1500	2
11	Basic	Basic	Southbound, Pine to Euclid	4500	2
12	Diverge	Diverge	Euclid SB Off-Ramp	1500	2
13	Basic	Basic	Euclid SB Off-Ramp to Loop On-Ramp	1460	2
14	Merge	Merge	Euclid SB Loop On-Ramp	1500	2
15	Basic	Basic	Euclid SB Loop On-Ramp to On-Ramp	1200	2
16	Merge	Merge	Euclid SB On-Ramp	1500	2
17	Basic	Basic	Southbound, S of Euclid	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.914	2556	7131	0.36	67.7	12.6	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	

1	0.92	0.92	0.914	0.870	2556	746	7200	2100	0.36	0.36	63.1	59.8	13.5	19.4	B
Segment 3: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.939		1797		7116		0.25		67.2		8.9		A
Segment 4: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.939	0.926	2407	610	7200	1900	0.33	0.32	63.3	61.0	12.7	15.8	B
Segment 5: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.939		2398		7116		0.34		67.2		11.9		B
Segment 6: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.939	0.794	2412	14	7200	2100	0.34	0.01	64.0	61.4	12.6	14.4	B
Segment 7: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.939		2410		4726		0.51		66.3		18.2		C
Segment 8: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.939	0.980	2410	675	4800	2100	0.50	0.32	59.9	59.9	20.1	23.4	C
Segment 9: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.922		1737		4718		0.37		65.9		13.2		B
Segment 10: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.922	0.990	2035	298	4800	2100	0.42	0.14	61.2	61.2	16.6	18.8	B
Segment 11: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.931		2036		4726		0.43		66.3		15.4		B
Segment 12: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**

	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.931	0.909	2036	853	4800	2100	0.42	0.41	59.5	59.5	17.1	20.5	C

Segment 13: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.957	1171	4744	0.25	67.2	8.7	A

Segment 14: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.957	0.935	2523	1352	4800	1900	0.53	0.71	60.4	60.4	20.9	21.4	C

Segment 15: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.939	2540	4744	0.54	67.2	18.9	C

Segment 16: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.939	0.952	3959	1419	4800	2100	0.82	0.68	56.4	56.4	35.1	33.0	D

Segment 17: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.939	3979	4554	0.87	55.9	35.6	E

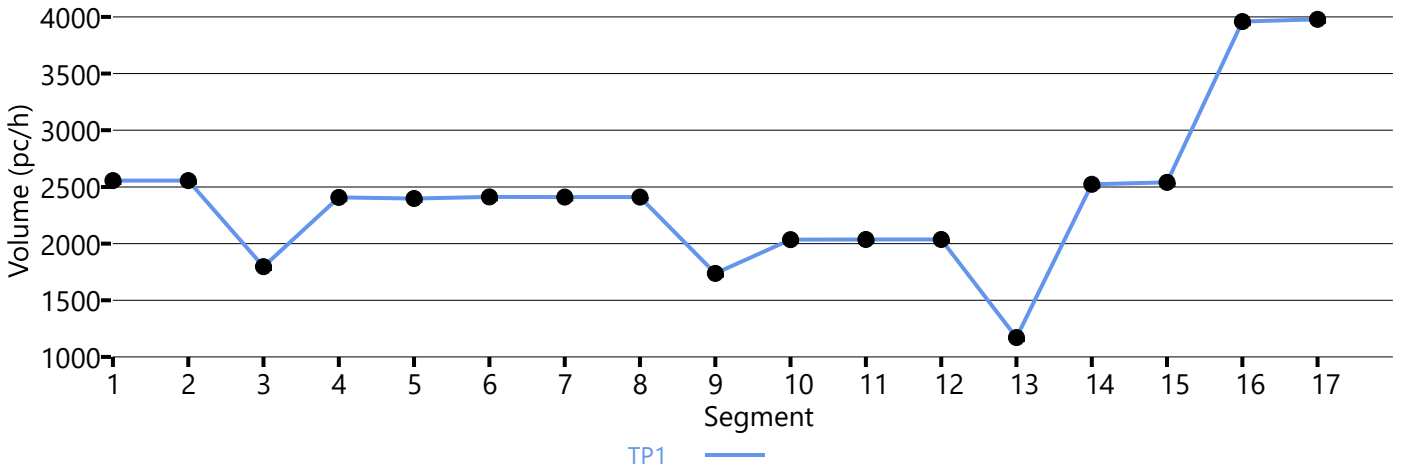
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	62.2	17.9	16.7	7.1	B

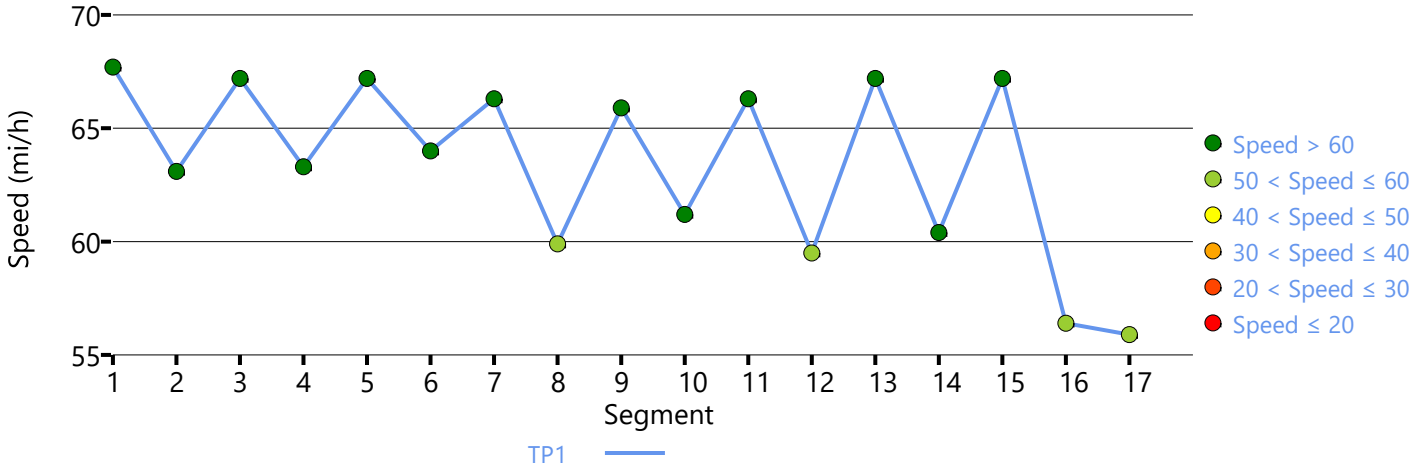
Facility Overall Results

Space Mean Speed, mi/h	62.2	Density, veh/mi/ln	16.7
Average Travel Time, min	7.1	Density, pc/mi/ln	17.9

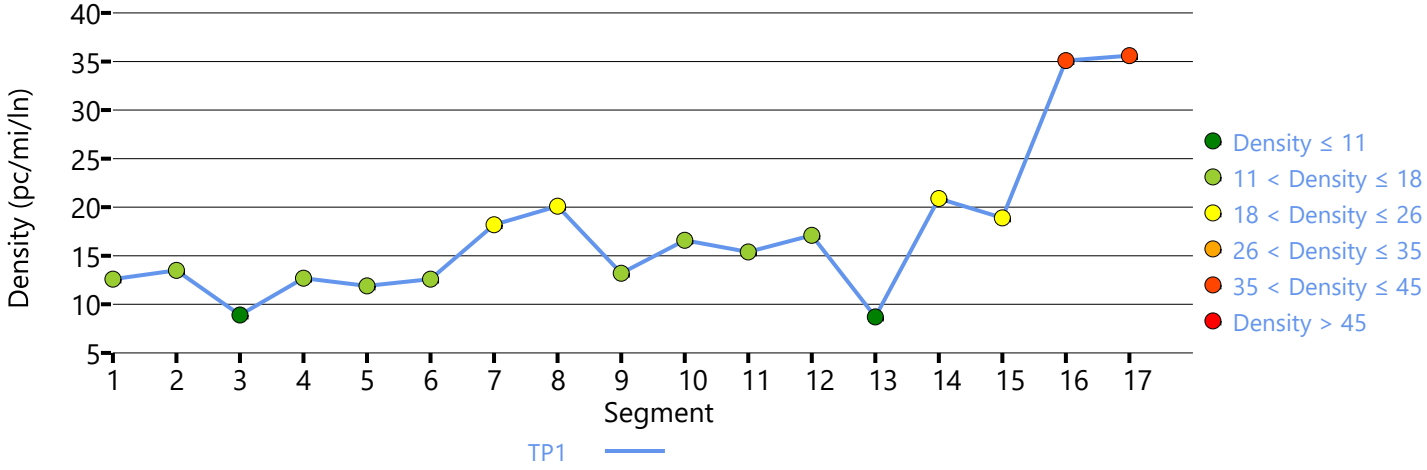
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/16/19
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2040) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-71 NB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	15
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Northbound, S of Euclid	5280	3
2	Diverge	Basic	Euclid NB Off-Ramp	1500	3
3	Basic	Basic	Euclid NB Off-Ramp to On-Ramp	1500	2
4	Merge	Merge	Euclid NB On-Ramp	1500	2
5	Basic	Basic	Northbound, Euclid to Pine	4500	2
6	Diverge	Diverge	Pine NB Off-Ramp	1500	2
7	Basic	Basic	Pine NB Off-Ramp to On-Ramp	2225	2
8	Merge	Basic	Pine NB On-Ramp	1500	2
9	Basic	Basic	Northbound, Pine to Central	5500	3
10	Diverge	Diverge	Central NB Off-Ramp	1500	3
11	Basic	Basic	Central NB Off-Ramp to Loop On-Ramp	1050	3
12	Merge	Merge	Central NB Loop On-Ramp	1500	3
13	Basic	Basic	Central NB Loop On-Ramp to On-Ramp	1040	3
14	Merge	Merge	Central NB On-Ramp	1500	3
15	Basic	Basic	Northbound, N of Central	4275	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.781	2789	6831	0.41	57.7	16.1	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.781	0.855	2789	843	7200	4200	0.39	0.20	70.0	-	13.3	-	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.746		1954		4754		0.41		67.7		14.4		B
Segment 4: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.746	0.855	2526	572	4800	1900	0.53	0.30	60.6	60.6	20.8	20.7	C
Segment 5: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.775		2512		4736		0.53		66.8		18.8		C
Segment 6: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.775	0.980	2512	423	4800	2100	0.52	0.20	60.6	60.6	20.7	24.6	C
Segment 7: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.730		2099		4726		0.44		66.3		15.8		B
Segment 8: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.730	0.990	3241	1142	4800	2100	0.44	0.54	70.0	-	15.0	-	B
Segment 9: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.820		3248		7089		0.46		66.3		16.3		B
Segment 10: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.820	0.935	3248	571	7200	2100	0.45	0.27	64.2	60.2	16.9	23.3	C
Segment 11: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.800		2662		7116		0.37		67.2		13.2		B
Segment 12: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.800	0.909	3021	359	7200	1900	0.42	0.19	63.3	61.0	15.9	17.2	B

Segment 13: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.813	3020	7116	0.42	67.2	15.0	B

Segment 14: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.813	0.826	3573	553	7200	2100	0.50	0.26	63.0	61.0	18.9	20.6	C

Segment 15: Basic

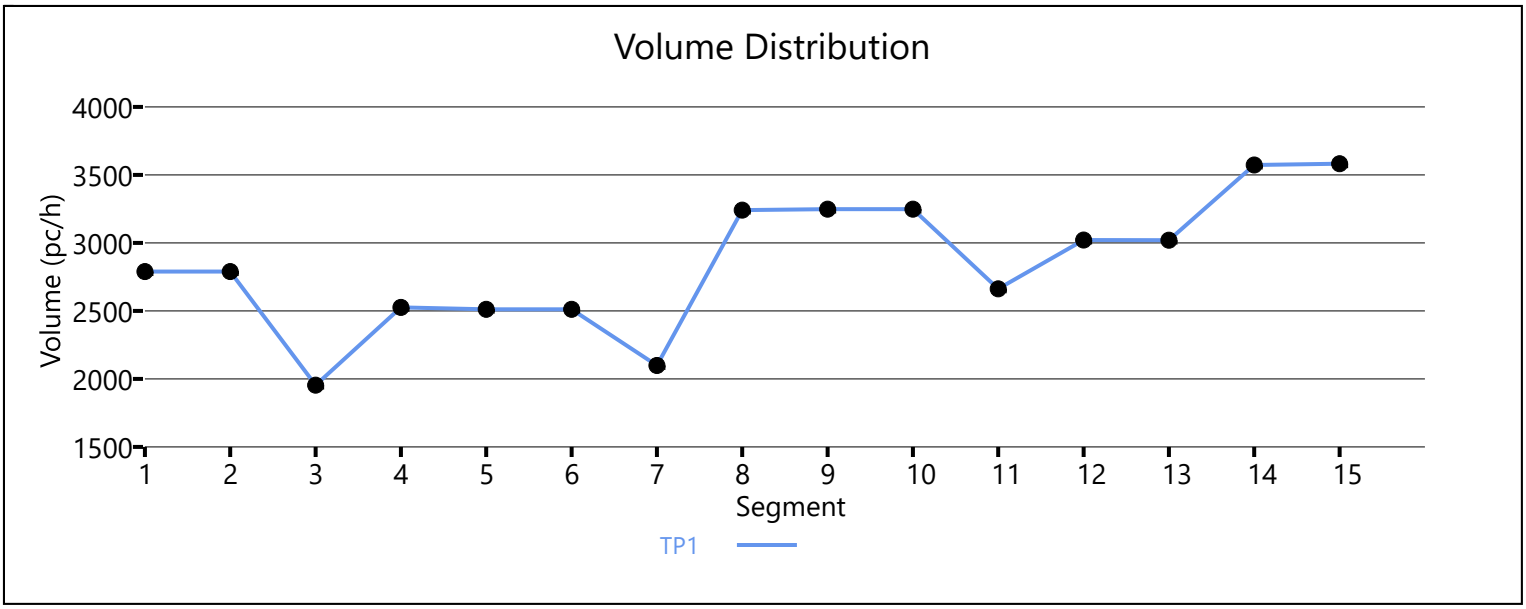
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.813	3582	7131	0.50	67.7	17.6	B

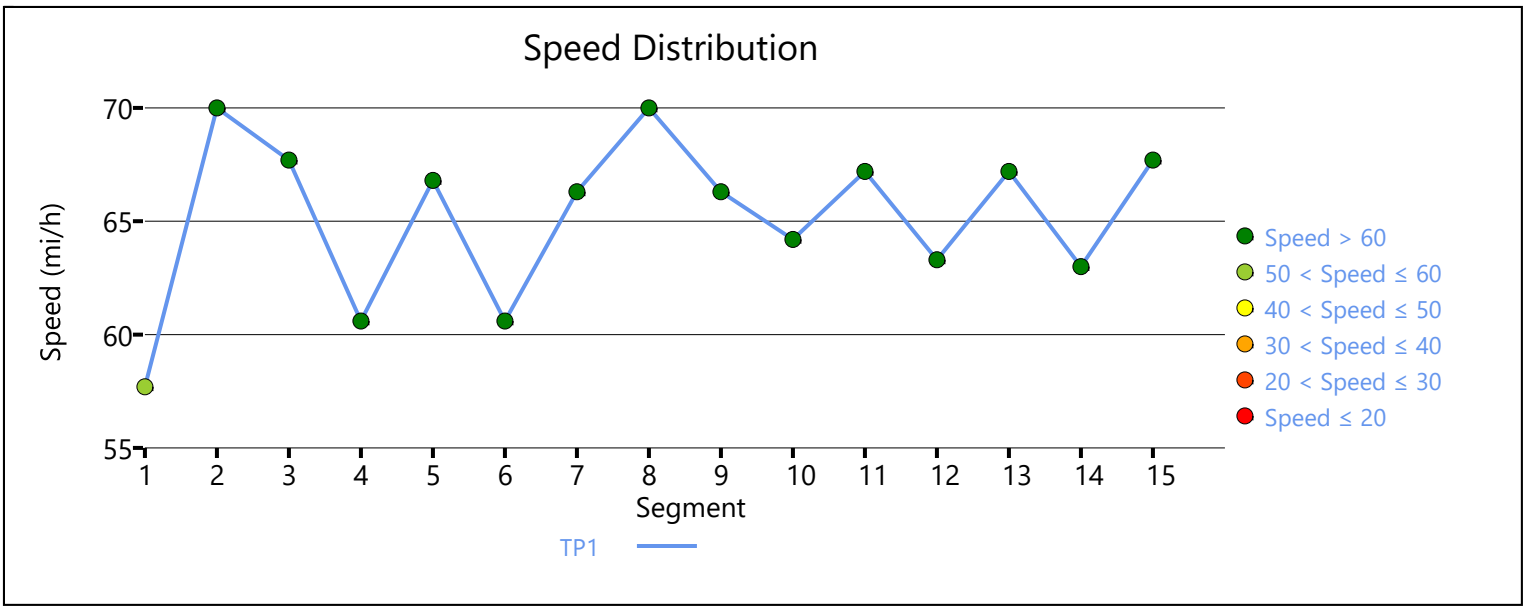
Facility Time Period Results

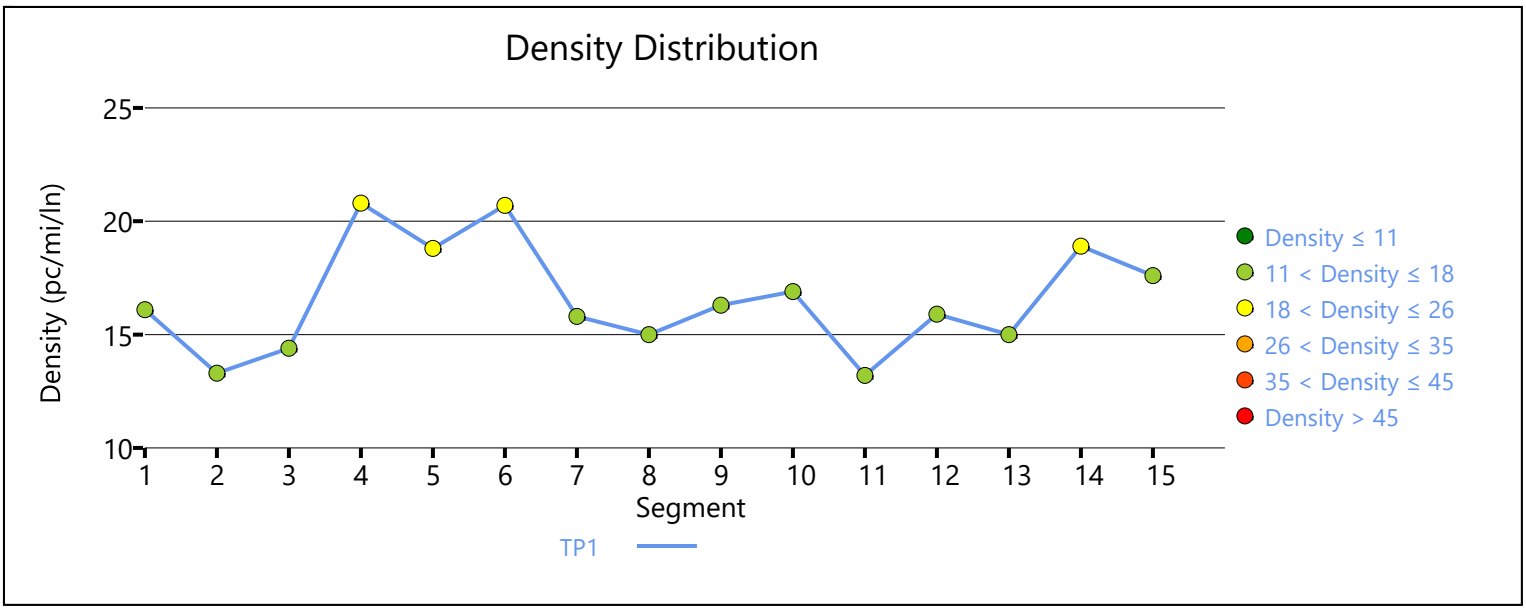
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	64.7	16.7	13.2	6.3	B

Facility Overall Results

Space Mean Speed, mi/h	64.7	Density, veh/mi/ln	13.2
Average Travel Time, min	6.3	Density, pc/mi/ln	16.7







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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/16/19
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2040) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-60 WB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Euclid	2500	4
2	Diverge	Diverge	Off-Ramp at Euclid	1500	4
3	Basic	Basic	Between	2200	4
4	Merge	Merge	On-Ramp at Euclid	1500	4
5	Basic	Basic	West of Euclid	1500	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	8814	9548	0.92	57.7	38.2	E

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.855	8814	1729	9600	2100	0.92	0.82	63.5	57.3	34.7	41.5	E

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	7072	9548	0.74	65.5	27.0	D

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.870	8479	1407	9600	2100	0.88	0.67	59.8	55.9	35.4	31.7	D

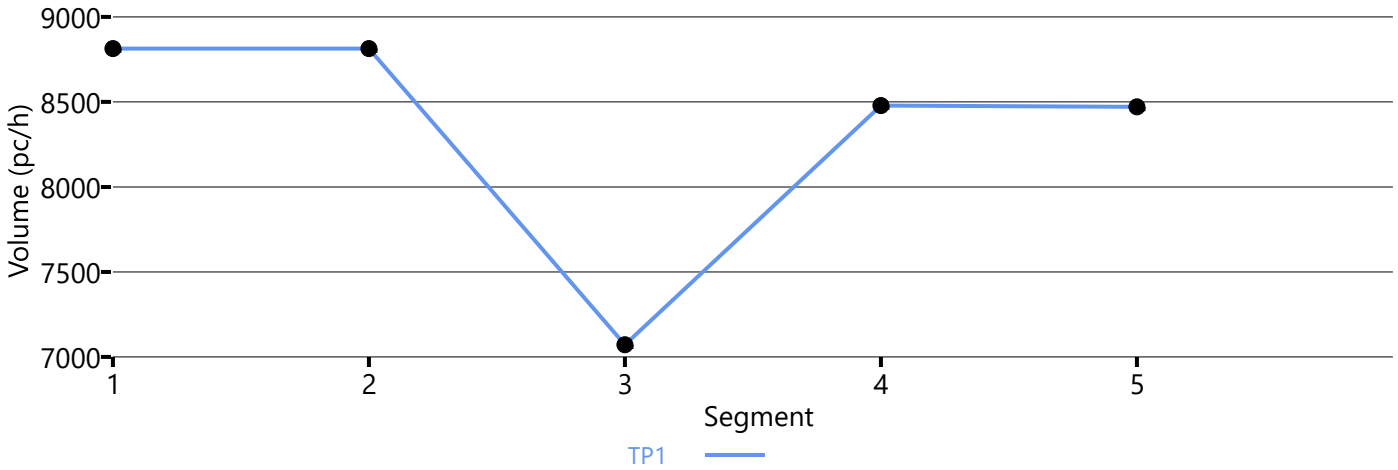
Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	8471	9548	0.89	59.6	35.5	E

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	60.8	34.1	33.1	1.7	D

Facility Overall Results			
Space Mean Speed, mi/h	60.8	Density, veh/mi/ln	33.1
Average Travel Time, min	1.7	Density, pc/mi/ln	34.1

Volume Distribution



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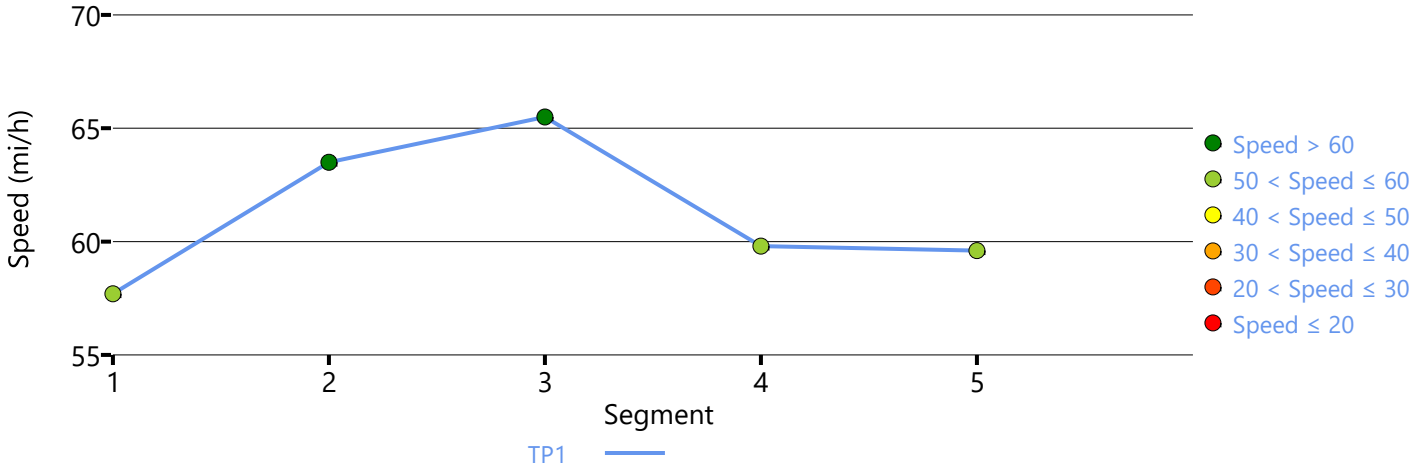
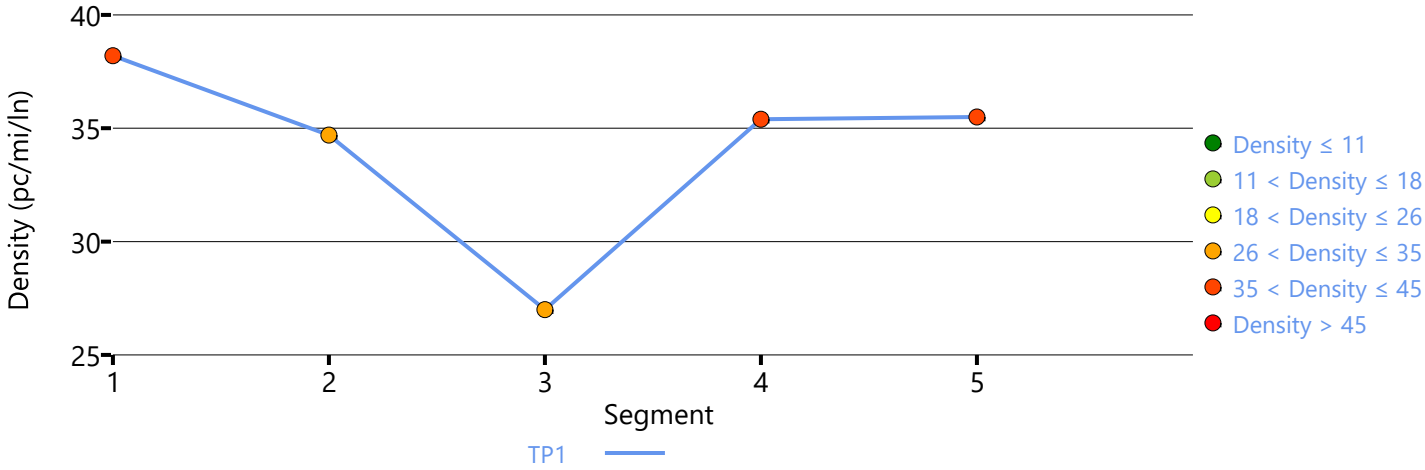


Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/16/19
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2040) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-60 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Euclid	1370	4
2	Diverge	Diverge	Off-Ramp at Euclid	1500	4
3	Basic	Basic	Between	2100	4
4	Merge	Merge	On-Ramp at Euclid	1500	4
5	Basic	Basic	East of Euclid	3000	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.917	8104	9548	0.85	61.4	33.0	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.917	0.862	8104	1397	9600	2100	0.84	0.67	64.3	58.1	31.5	36.5	E

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.935	6660	9548	0.70	66.6	25.0	C

Segment 4: Merge

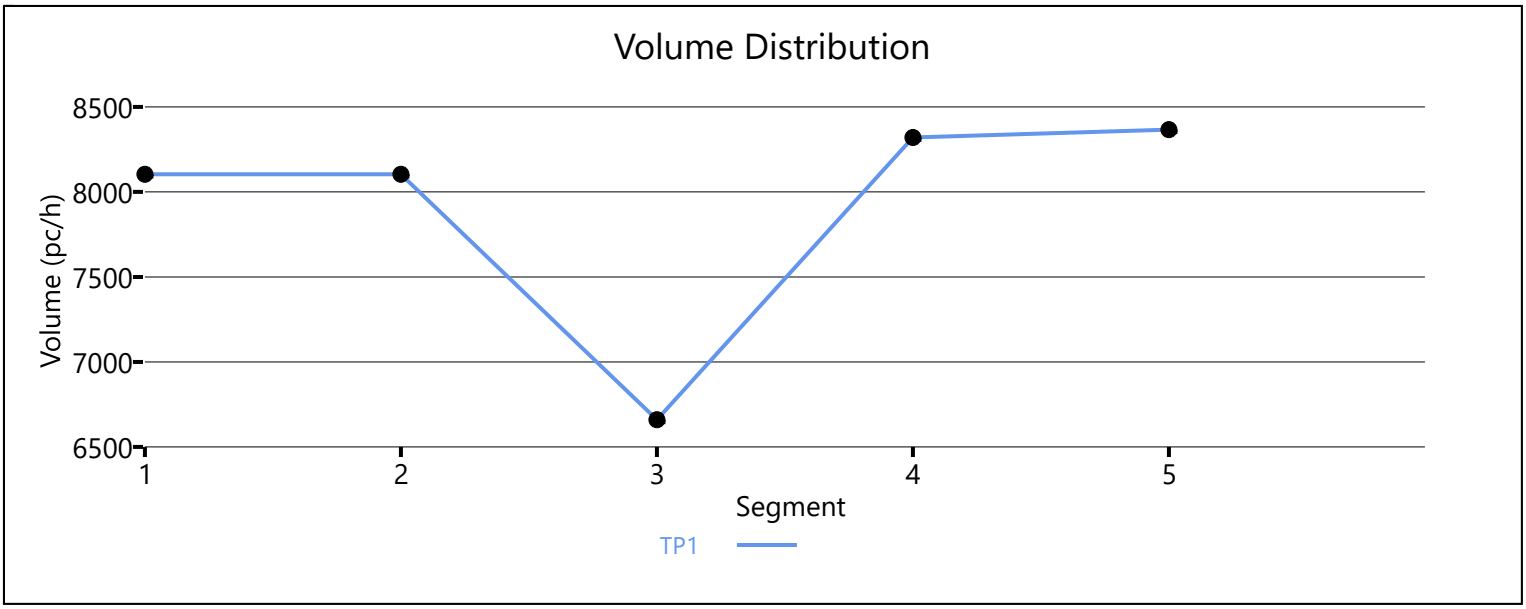
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.935	0.870	8320	1660	9600	2100	0.87	0.79	59.5	55.4	35.0	32.1	D

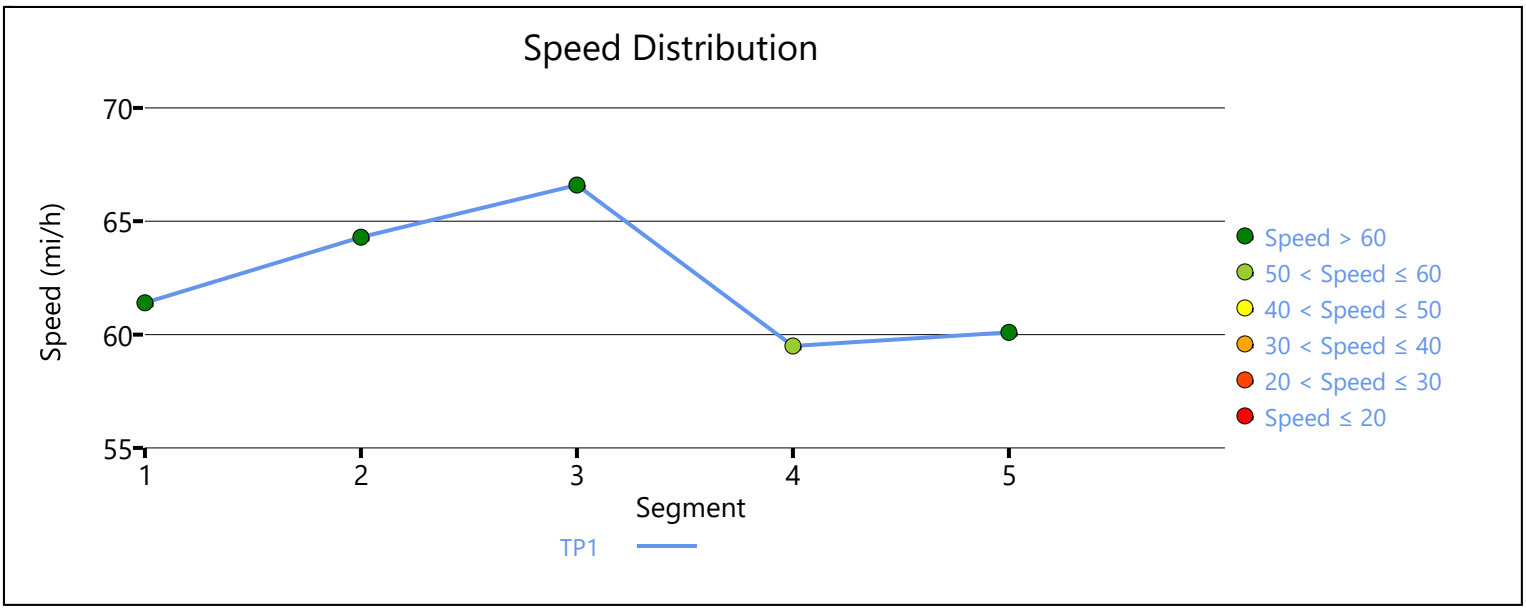
Segment 5: Basic

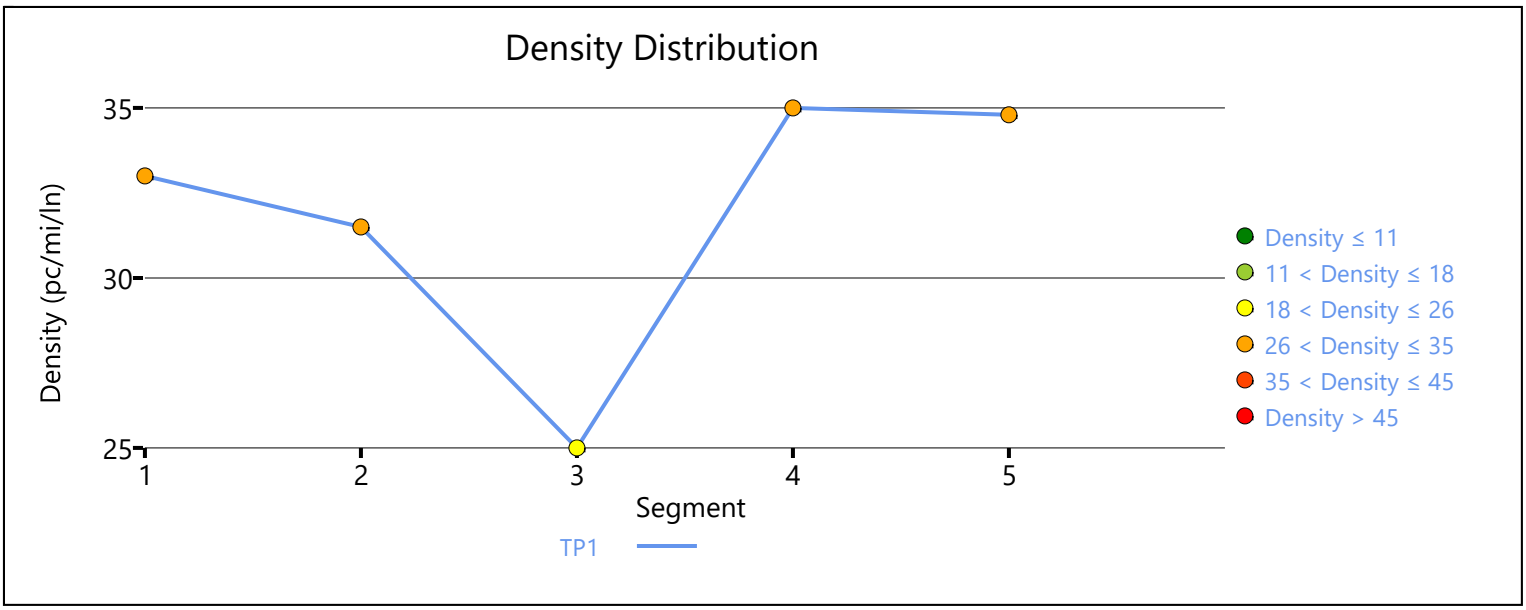
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.917	8366	9548	0.88	60.1	34.8	D

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	62.0	31.9	29.4	1.7	D

Facility Overall Results			
Space Mean Speed, mi/h	62.0	Density, veh/mi/ln	29.4
Average Travel Time, min	1.7	Density, pc/mi/ln	31.9







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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/16/19
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2040) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-71 SB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	17
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Southbound, N of Central	4275	3
2	Diverge	Diverge	Central SB Off-Ramp	1500	3
3	Basic	Basic	Cetnral SB Off-Ramp to Loop On-Ramp	1125	3
4	Merge	Merge	Central SB Loop On-Ramp	1500	3
5	Basic	Basic	Central SB Loop On-Ramp to On-Ramp	1025	3
6	Merge	Merge	Central SB On-Ramp	1500	3
7	Basic	Basic	Southbound, Central to Pine	5500	2
8	Diverge	Diverge	Pine SB Off-Ramp	1500	2
9	Basic	Basic	Pine SB Off-Ramp to On-Ramp	2315	2
10	Merge	Merge	Pine SB On-Ramp	1500	2
11	Basic	Basic	Southbound, Pine to Euclid	4500	2
12	Diverge	Diverge	Euclid SB Off-Ramp	1500	2
13	Basic	Basic	Euclid SB Off-Ramp to Loop On-Ramp	1460	2
14	Merge	Merge	Euclid SB Loop On-Ramp	1500	2
15	Basic	Basic	Euclid SB Loop On-Ramp to On-Ramp	1200	2
16	Merge	Merge	Euclid SB On-Ramp	1500	2
17	Basic	Basic	Southbound, S of Euclid	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.922	3912	7131	0.55	67.7	19.3	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	

1	0.92	0.92	0.922	0.870	3912	933	7200	2100	0.54	0.44	63.4	59.3	20.6	26.6	C
Segment 3: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.948		2979		7116		0.41		66.7		14.2		B
Segment 4: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.948	0.971	3633	654	7200	1900	0.50	0.34	62.6	60.4	19.3	21.5	C
Segment 5: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.948		3633		7116		0.51		66.6		17.3		B
Segment 6: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.948	0.901	3731	98	7200	2100	0.52	0.05	63.0	60.9	19.7	20.7	C
Segment 7: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.948		3731		4726		0.79		64.9		28.8		D
Segment 8: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.948	0.980	3731	2162	4800	2100	0.77	1.03	53.3	56.2	45.0	34.8	D
Segment 9: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.922		1569		4718		0.32		65.3		11.2		B
Segment 10: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.922	0.971	1905	336	4800	2100	0.39	0.16	61.3	61.3	15.5	17.7	B
Segment 11: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.931		1905		4726		0.39		66.3		13.6		B
Segment 12: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**

	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.931	0.962	1905	1302	4800	2100	0.39	0.62	58.4	58.4	16.3	19.4	B

Segment 13: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.907	603	4744	0.11	66.4	4.3	A

Segment 14: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.907	0.943	2081	1478	4800	1900	0.42	0.78	60.9	60.9	17.1	17.9	B

Segment 15: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.922	2081	4744	0.43	66.5	14.9	B

Segment 16: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.922	0.980	3373	1292	4800	2100	0.69	0.62	59.0	59.0	28.6	28.4	D

Segment 17: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.939	3373	4554	0.73	57.7	28.2	D

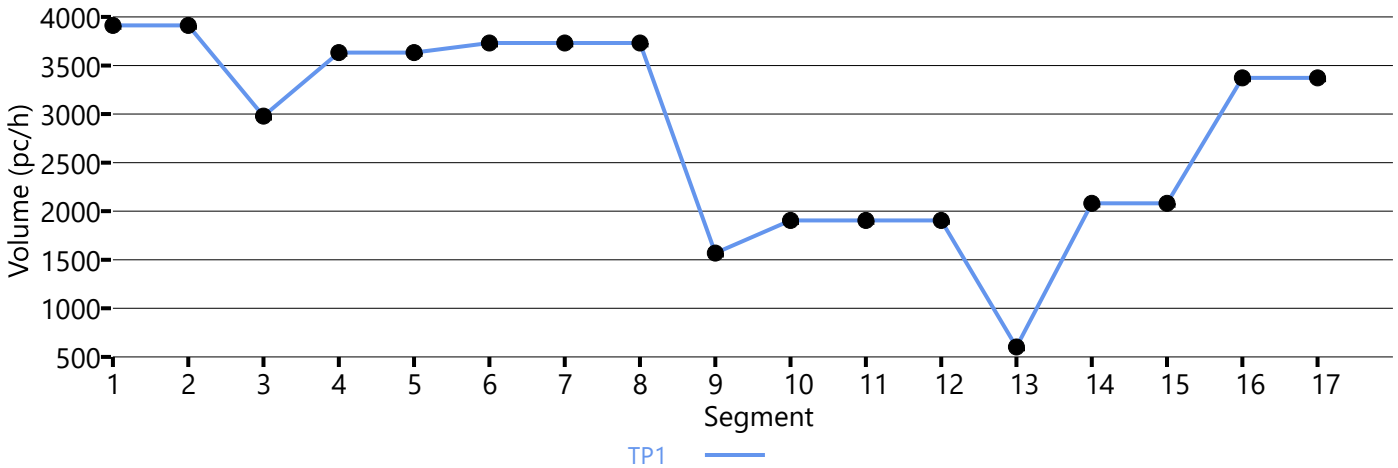
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	62.7	20.5	19.2	7.0	C

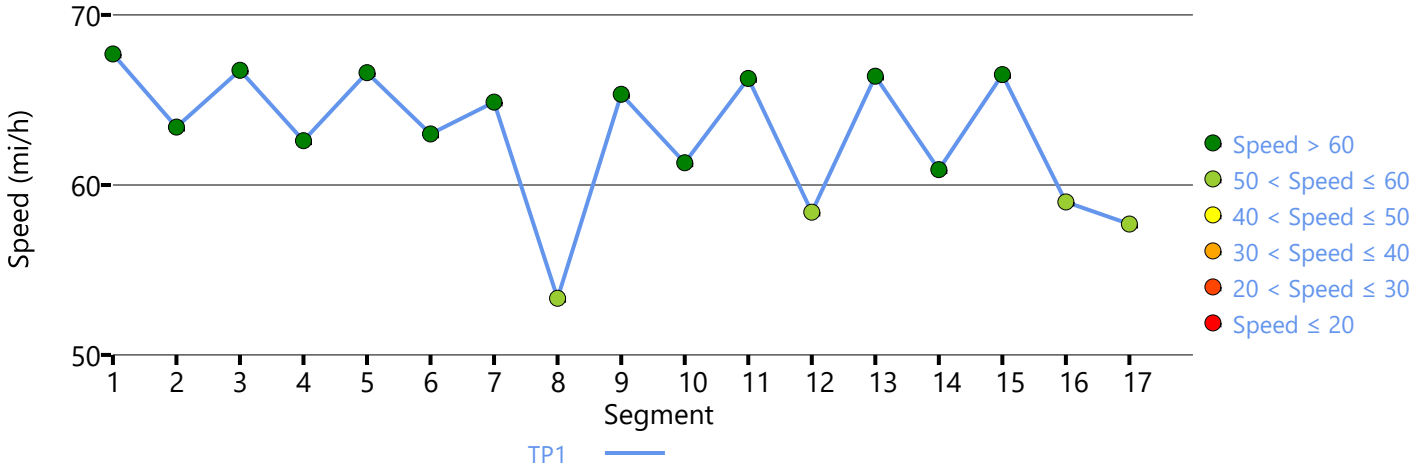
Facility Overall Results

Space Mean Speed, mi/h	62.7	Density, veh/mi/ln	19.2
Average Travel Time, min	7.0	Density, pc/mi/ln	20.5

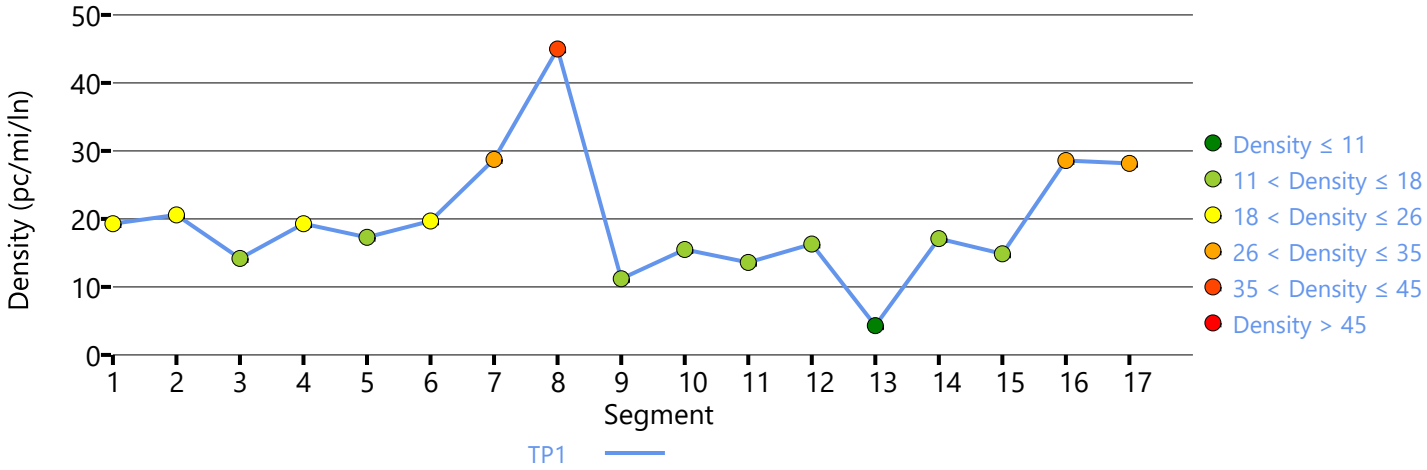
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/16/19
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2040) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-71 NB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	15
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	Northbound, S of Euclid	5280	3
2	Diverge	Basic	Euclid NB Off-Ramp	1500	3
3	Basic	Basic	Euclid NB Off-Ramp to On-Ramp	1500	2
4	Merge	Merge	Euclid NB On-Ramp	1500	2
5	Basic	Basic	Northbound, Euclid to Pine	4500	2
6	Diverge	Diverge	Pine NB Off-Ramp	1500	2
7	Basic	Basic	Pine NB Off-Ramp to On-Ramp	2225	2
8	Merge	Basic	Pine NB On-Ramp	1500	2
9	Basic	Basic	Northbound, Pine to Central	5500	3
10	Diverge	Diverge	Central NB Off-Ramp	1500	3
11	Basic	Basic	Central NB Off-Ramp to Loop On-Ramp	1050	3
12	Merge	Merge	Central NB Loop On-Ramp	1500	3
13	Basic	Basic	Central NB Loop On-Ramp to On-Ramp	1040	3
14	Merge	Merge	Central NB On-Ramp	1500	3
15	Basic	Basic	Northbound, N of Central	4275	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.893	5019	6831	0.73	57.7	29.0	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.893	0.943	5019	1653	7208	4200	0.70	0.39	67.4	-	24.8	-	C

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.862		3391		4754		0.71		65.6		25.9		C
Segment 4: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.862	0.719	3482	91	4800	1900	0.73	0.05	58.4	58.4	29.8	28.4	D
Segment 5: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.862		3466		4736		0.73		64.6		26.8		D
Segment 6: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.862	0.990	3466	1019	4800	2100	0.72	0.49	59.1	59.1	29.3	32.8	D
Segment 7: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.806		2456		4726		0.52		66.3		18.5		C
Segment 8: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.806	0.990	3467	1011	4800	2100	0.51	0.48	70.0	-	17.5	-	B
Segment 9: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.862		3458		7089		0.49		66.3		17.4		B
Segment 10: Diverge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.862	0.926	3458	919	7200	2100	0.48	0.44	63.2	59.3	18.2	25.0	C
Segment 11: Basic															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
1	0.92		0.833		2556		7116		0.36		67.2		12.7		B
Segment 12: Merge															
Time Period	**PHF**		**fHV**		**Flow Rate (pc/h)**		**Capacity (pc/h)**		**d/c Ratio**		**Speed (mi/h)**		**Density (pc/mi/ln)**		**LOS**
	F	**R**	**F**	**R**	**Freeway**	**Ramp**	**Freeway**	**Ramp**	**F**	**R**	**F**	**R**	**Freeway**	**Ramp**	
1	0.92	0.92	0.833	0.962	2997	441	7200	1900	0.42	0.23	63.3	61.0	15.8	17.3	B

Segment 13: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.855	2986	7116	0.42	67.2	14.8	B

Segment 14: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.855	0.935	3730	744	7200	2100	0.52	0.35	62.8	60.8	19.8	21.9	C

Segment 15: Basic

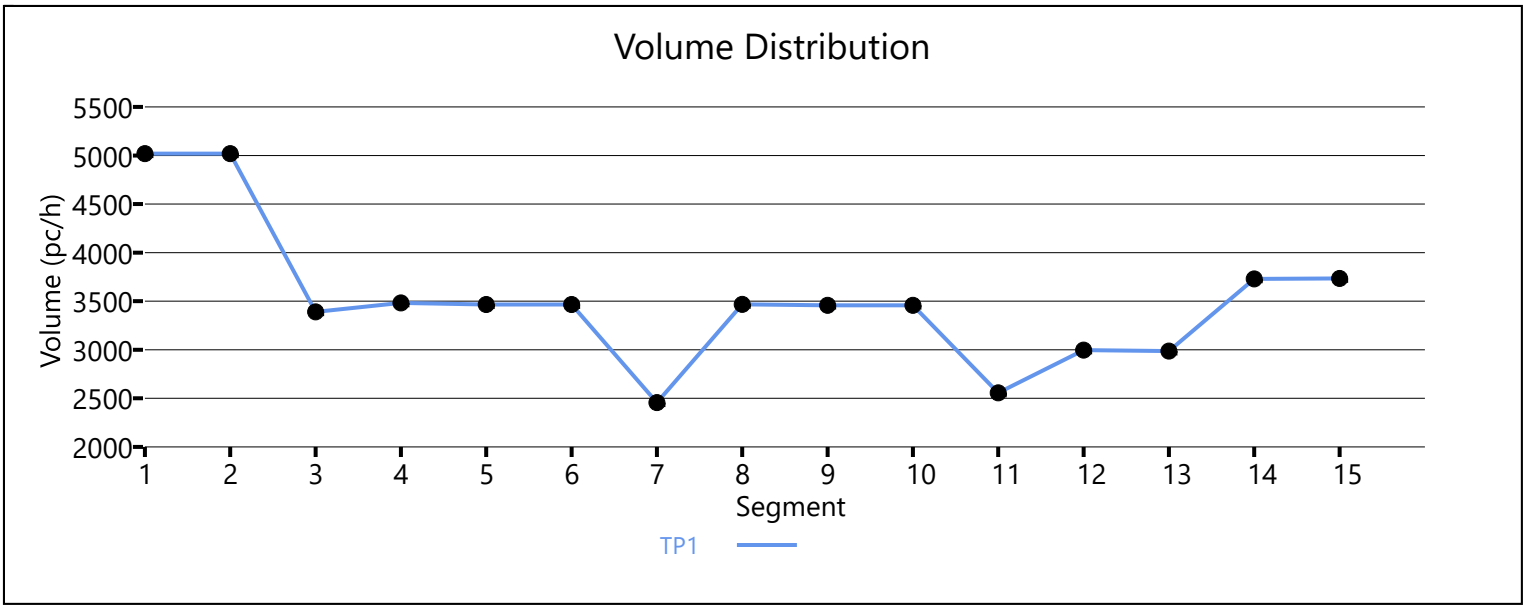
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.870	3734	7131	0.52	67.7	18.4	C

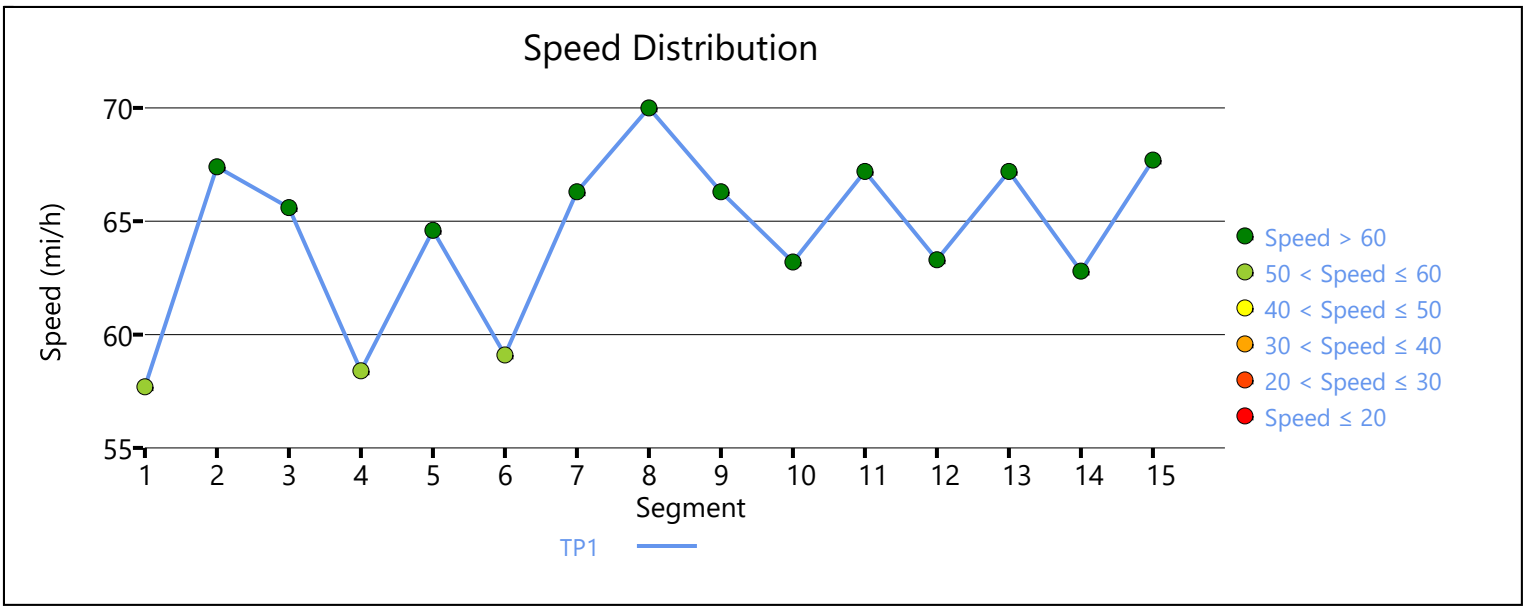
Facility Time Period Results

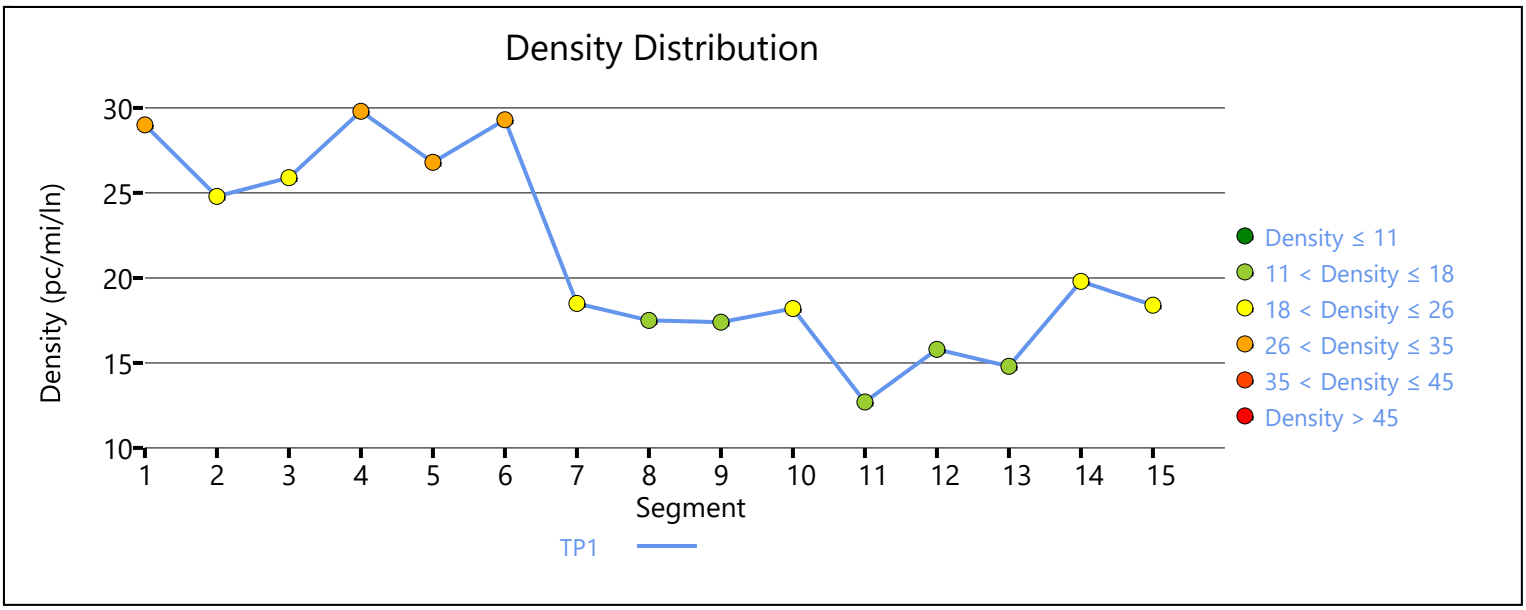
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	63.5	21.6	18.7	6.4	C

Facility Overall Results

Space Mean Speed, mi/h	63.5	Density, veh/mi/ln	18.7
Average Travel Time, min	6.4	Density, pc/mi/ln	21.6







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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/16/19
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2040) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-60 WB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Euclid	2500	4
2	Diverge	Diverge	Off-Ramp at Euclid	1500	4
3	Basic	Basic	Between	2200	4
4	Merge	Merge	On-Ramp at Euclid	1500	4
5	Basic	Basic	West of Euclid	1500	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	9770	9548	1.02	53.0	45.0	F

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.893	9548	1560	9600	2100	1.02	0.74	63.6	57.7	37.5	43.4	F

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	7988	9548	0.86	62.6	31.9	D

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.885	9389	1401	9600	2100	1.00	0.67	57.5	52.7	40.8	34.5	D

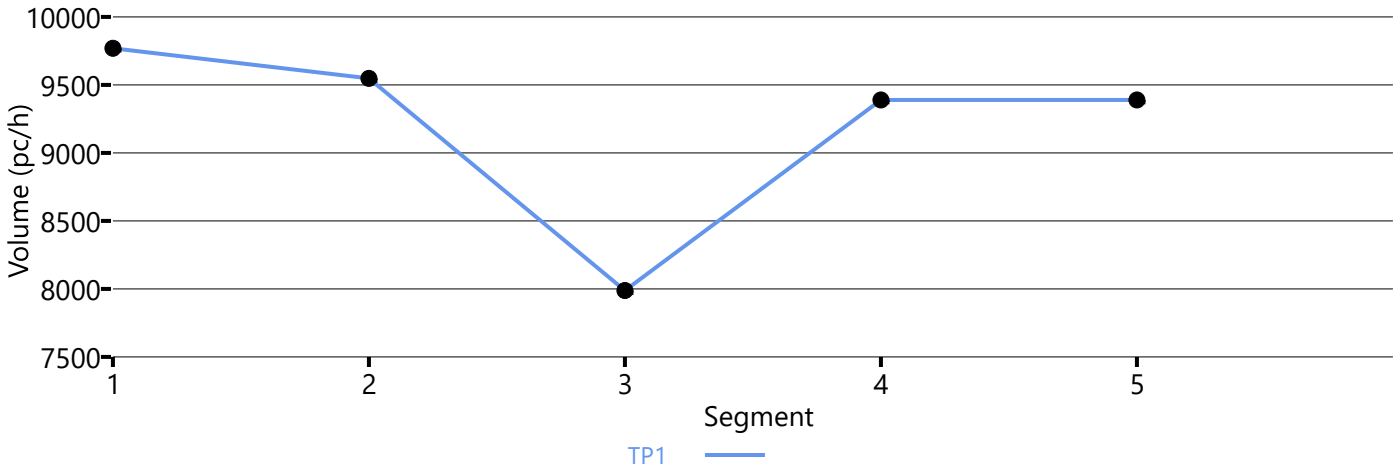
Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	9389	9548	1.00	54.8	42.9	E

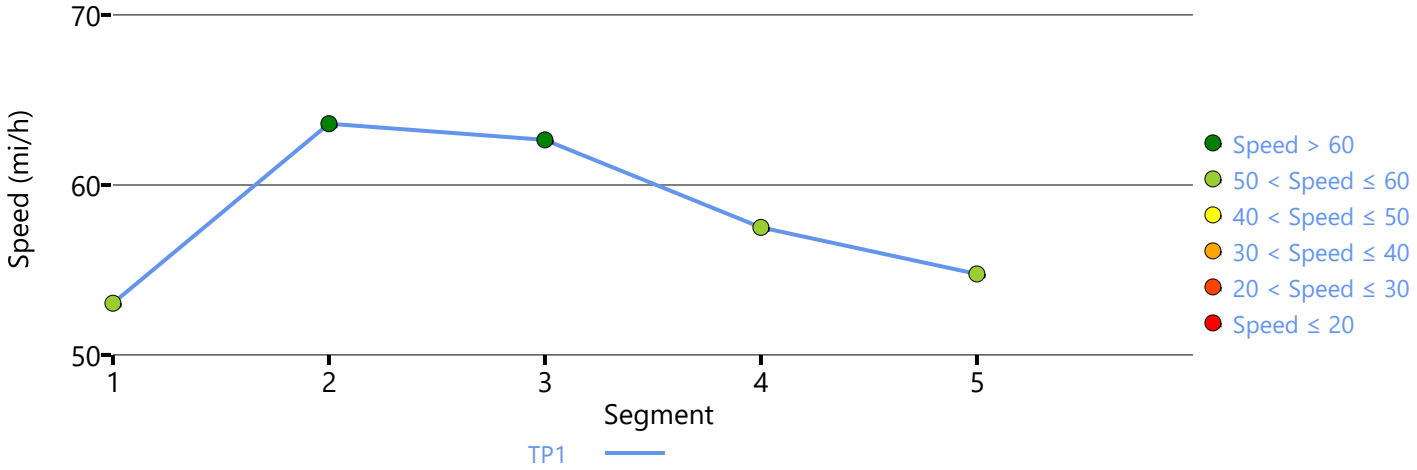
Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	57.8	39.5	38.3	1.8	F

Facility Overall Results			
Space Mean Speed, mi/h	57.8	Density, veh/mi/ln	38.3
Average Travel Time, min	1.8	Density, pc/mi/ln	39.5

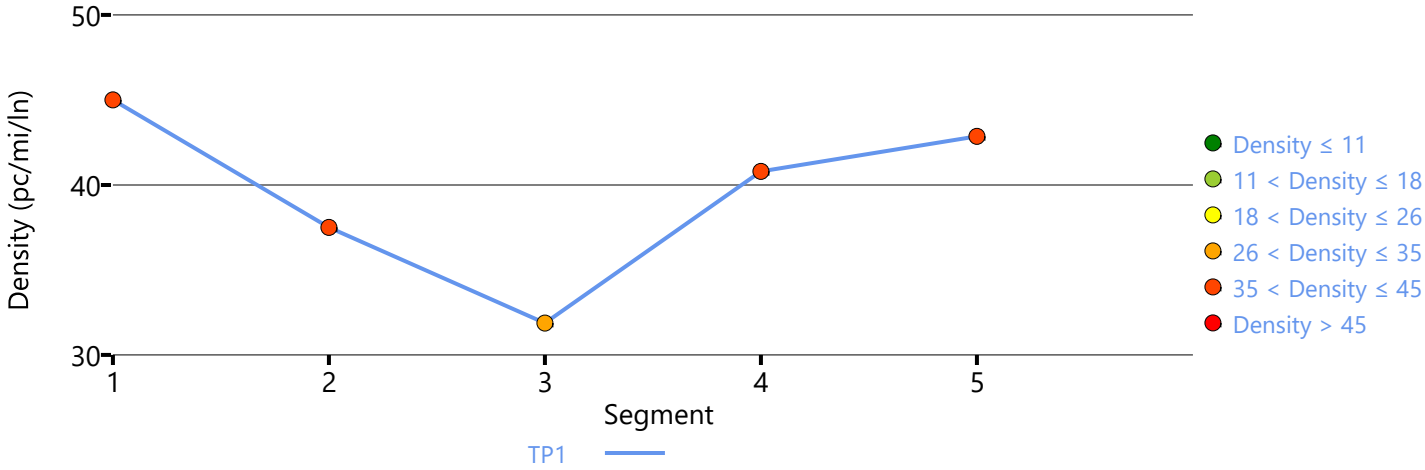
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	LCC	Date	04/16/19
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2040) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Majestic Chino Heritage (JN:10349) - SR-60 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Euclid	1370	4
2	Diverge	Diverge	Off-Ramp at Euclid	1500	4
3	Basic	Basic	Between	2100	4
4	Merge	Merge	On-Ramp at Euclid	1500	4
5	Basic	Basic	East of Euclid	3000	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	10122	9548	1.06	53.0	45.0	F

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.877	9219	1265	9600	2100	1.05	0.60	46.0	58.5	50.1	43.4	F

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	7735	9548	0.93	30.1	64.3	F

Segment 4: Merge

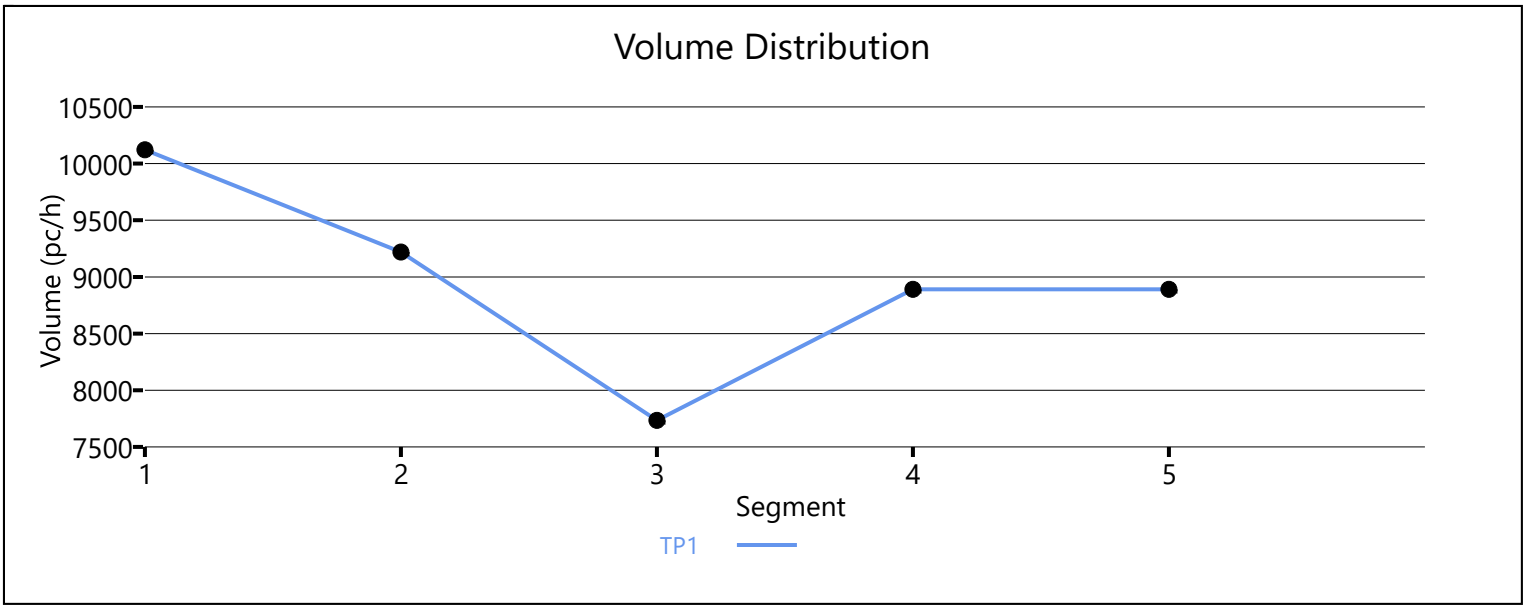
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.893	8891	1528	9600	2100	1.09	0.73	40.2	45.9	55.3	38.1	F

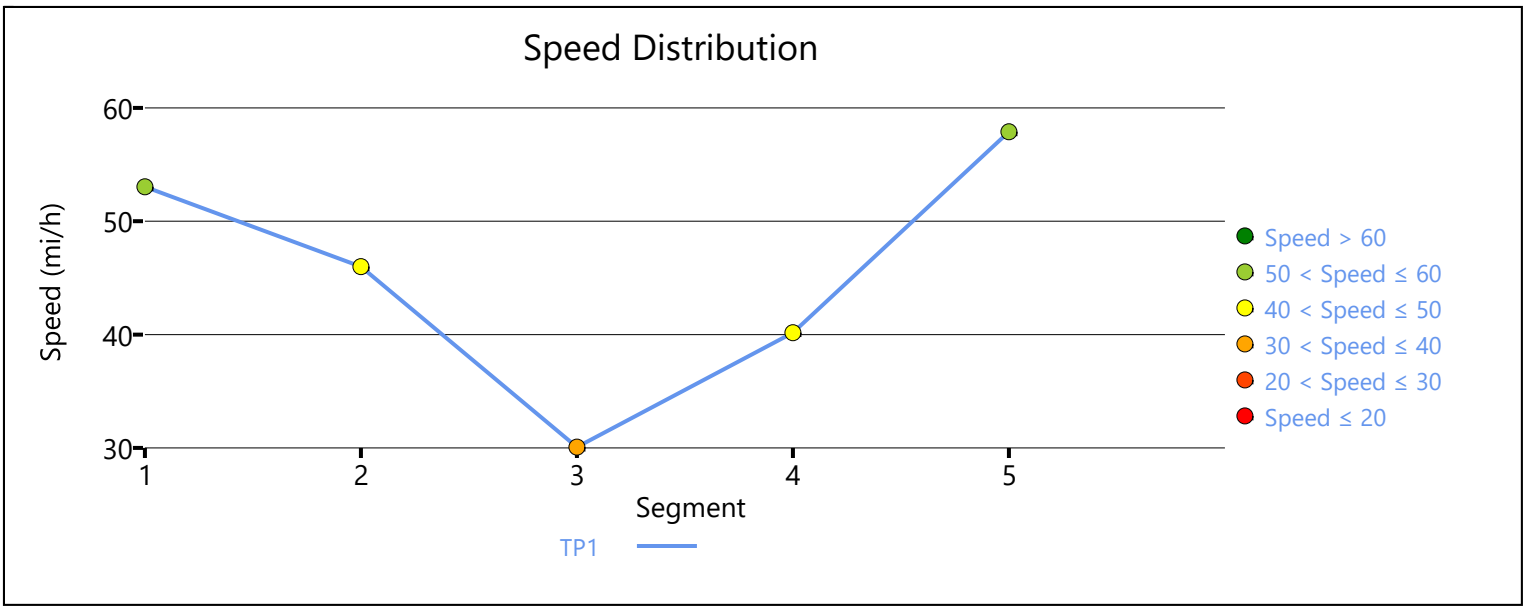
Segment 5: Basic

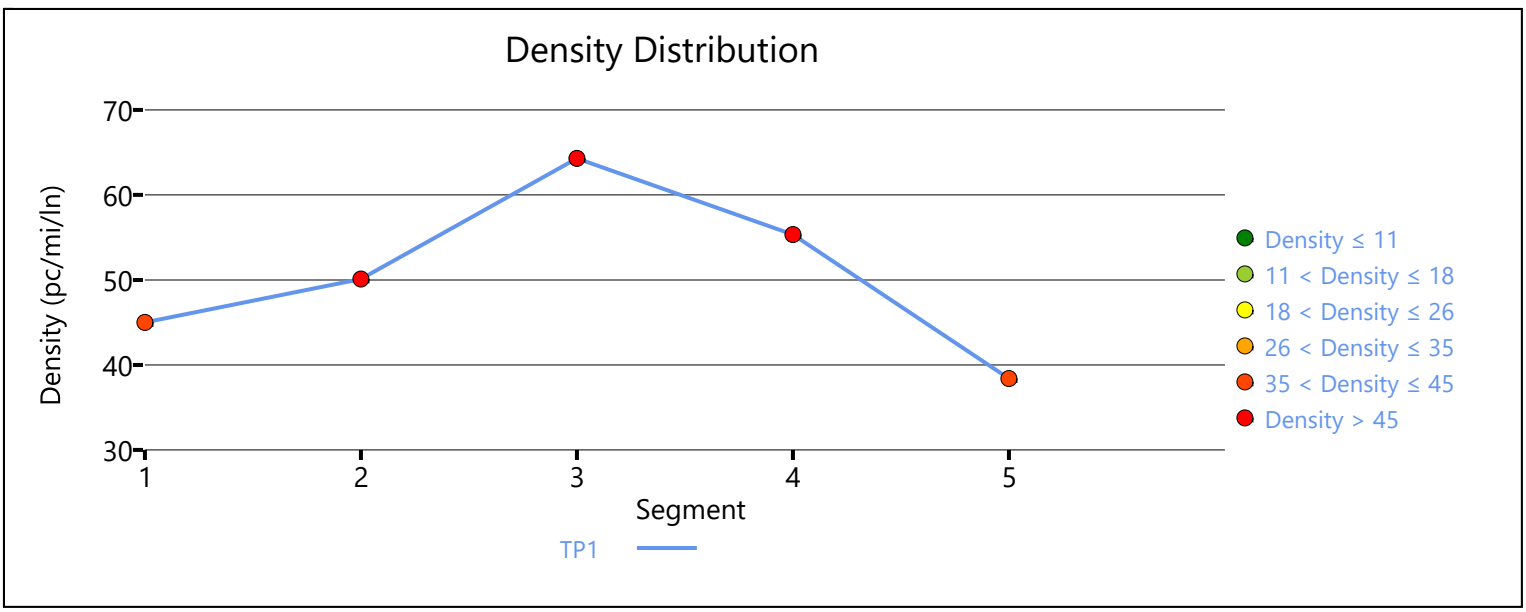
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	8891	9548	1.09	57.9	38.4	F

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	43.4	50.3	49.0	2.5	F

Facility Overall Results			
Space Mean Speed, mi/h	43.4	Density, veh/mi/ln	49.0
Average Travel Time, min	2.5	Density, pc/mi/ln	50.3







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APPENDIX 8.9:

HORIZON YEAR (2040) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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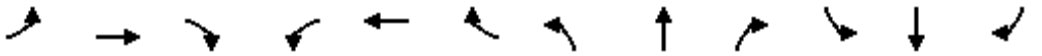
Lane Group	EBT	WBL	WBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	705	50	264	430	1
Future Volume (vph)	705	50	264	430	1
Turn Type	NA	Prot	NA	Split	NA
Protected Phases	2	1	6	4	4
Permitted Phases					
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	8.0	5.0	5.0	5.0	5.0
Minimum Split (s)	25.0	9.6	25.0	37.0	37.0
Total Split (s)	31.0	12.0	43.0	37.0	37.0
Total Split (%)	38.8%	15.0%	53.8%	46.3%	46.3%
Yellow Time (s)	4.5	3.6	4.5	4.5	4.5
All-Red Time (s)	0.5	1.0	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.6	5.0	5.0	5.0
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	None	None	C-Max	Max	Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 6:WBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 2: SR-71 SB Ramps & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	705	36	50	264	0	0	0	0	430	1	199
Future Volume (veh/h)	0	705	36	50	264	0	0	0	0	430	1	199
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	820	36	58	307	0				321	251	141
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86				0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1311	58	82	1715	0				724	457	257
Arrive On Green	0.00	0.37	0.37	0.01	0.16	0.00				0.40	0.40	0.40
Sat Flow, veh/h	0	3618	155	1810	3705	0				1810	1143	642
Grp Volume(v), veh/h	0	420	436	58	307	0				321	0	392
Grp Sat Flow(s),veh/h/ln	0	1805	1872	1810	1805	0				1810	0	1784
Q Serve(g_s), s	0.0	15.2	15.2	2.6	5.9	0.0				10.4	0.0	13.5
Cycle Q Clear(g_c), s	0.0	15.2	15.2	2.6	5.9	0.0				10.4	0.0	13.5
Prop In Lane	0.00		0.08	1.00		0.00				1.00		0.36
Lane Grp Cap(c), veh/h	0	672	697	82	1715	0				724	0	714
V/C Ratio(X)	0.00	0.63	0.63	0.71	0.18	0.00				0.44	0.00	0.55
Avail Cap(c_a), veh/h	0	672	697	167	1715	0				724	0	714
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	20.5	20.5	38.9	20.2	0.0				17.5	0.0	18.5
Incr Delay (d2), s/veh	0.0	1.8	1.8	10.6	0.2	0.0				2.0	0.0	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.2	6.4	1.3	2.4	0.0				4.5	0.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	22.4	22.3	49.5	20.4	0.0				19.5	0.0	21.5
LnGrp LOS	A	C	C	D	C	A				B	A	C
Approach Vol, veh/h		856			365						713	
Approach Delay, s/veh		22.3			25.0						20.6	
Approach LOS		C			C						C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	8.2	34.8		37.0		43.0
Change Period (Y+Rc), s	4.6	5.0		5.0		5.0
Max Green Setting (Gmax), s	7.4	26.0		32.0		38.0
Max Q Clear Time (g_c+I1), s	4.6	17.2		15.5		7.9
Green Ext Time (p_c), s	0.0	3.3		3.3		1.9

Intersection Summary		
HCM 6th Ctrl Delay		22.2
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

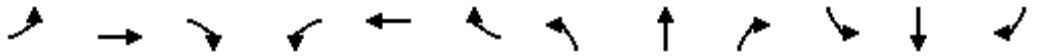
Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	495	639	247	920	6	71
Future Volume (vph)	495	639	247	920	6	71
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	5	2	6		8	
Permitted Phases				6		8
Detector Phase	5	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	8.0	8.0	8.0	5.0	5.0
Minimum Split (s)	9.0	22.5	22.0	22.0	10.0	10.0
Total Split (s)	18.0	70.0	52.0	52.0	10.0	10.0
Total Split (%)	22.5%	87.5%	65.0%	65.0%	12.5%	12.5%
Yellow Time (s)	3.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	0.5	1.0	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.5	5.0	5.0	5.0	5.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Min	Min

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 5: SR-71 NB Ramps & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	495	639	0	0	247	920	67	6	71	0	0	0
Future Volume (veh/h)	495	639	0	0	247	920	67	6	71	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	576	695	0	0	268	1000	78	7	77			
Peak Hour Factor	0.86	0.92	0.86	0.92	0.92	0.92	0.86	0.86	0.92			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	614	1936	0	0	2865	1278	104	9	101			
Arrive On Green	0.17	1.00	0.00	0.00	0.79	0.79	0.06	0.06	0.06			
Sat Flow, veh/h	3510	1900	0	0	3705	1610	1667	150	1610			
Grp Volume(v), veh/h	576	695	0	0	268	1000	85	0	77			
Grp Sat Flow(s),veh/h/ln	1755	1900	0	0	1805	1610	1817	0	1610			
Q Serve(g_s), s	13.0	0.0	0.0	0.0	1.3	27.0	3.7	0.0	3.8			
Cycle Q Clear(g_c), s	13.0	0.0	0.0	0.0	1.3	27.0	3.7	0.0	3.8			
Prop In Lane	1.00		0.00	0.00		1.00	0.92		1.00			
Lane Grp Cap(c), veh/h	614	1936	0	0	2865	1278	114	0	101			
V/C Ratio(X)	0.94	0.36	0.00	0.00	0.09	0.78	0.75	0.00	0.77			
Avail Cap(c_a), veh/h	614	1936	0	0	2865	1278	114	0	101			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.77	0.77	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	32.6	0.0	0.0	0.0	1.8	4.5	36.9	0.0	36.9			
Incr Delay (d2), s/veh	18.5	0.4	0.0	0.0	0.1	4.8	23.7	0.0	28.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	6.7	0.2	0.0	0.0	0.2	5.0	2.3	0.0	2.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.0	0.4	0.0	0.0	1.9	9.3	60.5	0.0	65.8			
LnGrp LOS	D	A	A	A	A	A	E	A	E			
Approach Vol, veh/h		1271			1268			162				
Approach Delay, s/veh		23.3			7.8			63.1				
Approach LOS		C			A			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		87.5			18.0	69.5		10.0				
Change Period (Y+Rc), s		5.5			4.0	* 5.5		5.0				
Max Green Setting (Gmax), s		64.5			14.0	* 47		5.0				
Max Q Clear Time (g_c+I1), s		2.0			15.0	29.0		5.8				
Green Ext Time (p_c), s		5.3			0.0	6.3		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	18.4
HCM 6th LOS	B

Notes

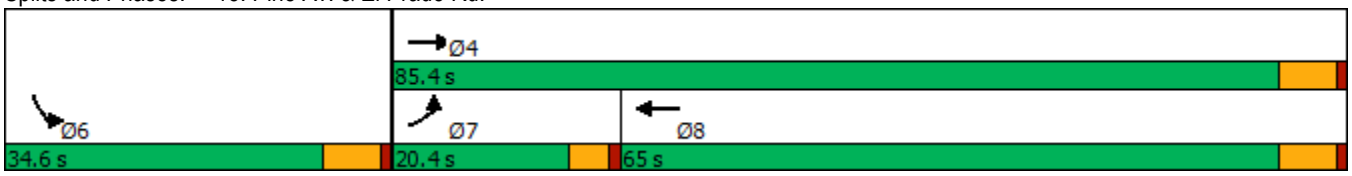
User approved volume balancing among the lanes for turning movement.

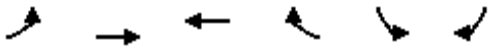
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	92	590	1288	142
Future Volume (vph)	92	590	1288	142
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	28.2	33.2
Total Split (s)	20.4	85.4	65.0	34.6
Total Split (%)	17.0%	71.2%	54.2%	28.8%
Yellow Time (s)	3.6	5.2	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	6.2
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 104.8
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 15: Pine Av. & El Prado Rd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	92	590	1288	317	142	82
Future Volume (veh/h)	92	590	1288	317	142	82
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1900	1976	1900
Adj Flow Rate, veh/h	101	648	1415	348	156	90
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	127	2532	1664	398	184	106
Arrive On Green	0.07	0.70	0.58	0.58	0.16	0.16
Sat Flow, veh/h	1714	3705	2984	691	1137	656
Grp Volume(v), veh/h	101	648	869	894	247	0
Grp Sat Flow(s),veh/h/ln	1714	1805	1805	1776	1801	0
Q Serve(g_s), s	5.2	5.9	35.6	38.9	12.1	0.0
Cycle Q Clear(g_c), s	5.2	5.9	35.6	38.9	12.1	0.0
Prop In Lane	1.00			0.39	0.63	0.36
Lane Grp Cap(c), veh/h	127	2532	1040	1023	291	0
V/C Ratio(X)	0.79	0.26	0.84	0.87	0.85	0.00
Avail Cap(c_a), veh/h	299	3159	1173	1153	565	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	41.2	4.9	15.7	16.4	36.9	0.0
Incr Delay (d2), s/veh	4.1	0.1	4.9	7.0	6.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	1.5	12.9	14.4	5.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	45.3	5.0	20.6	23.4	43.6	0.0
LnGrp LOS	D	A	C	C	D	A
Approach Vol, veh/h		749	1763		247	
Approach Delay, s/veh		10.4	22.0		43.6	
Approach LOS		B	C		D	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	69.7	20.8	11.3	58.3
Change Period (Y+Rc), s	6.2	6.2	4.6	6.2
Max Green Setting (Gmax), s	79.2	28.4	15.8	58.8
Max Q Clear Time (g_c+I1), s	7.9	14.1	7.2	40.9
Green Ext Time (p_c), s	4.4	0.6	0.1	11.3

Intersection Summary	
HCM 6th Ctrl Delay	20.8
HCM 6th LOS	C

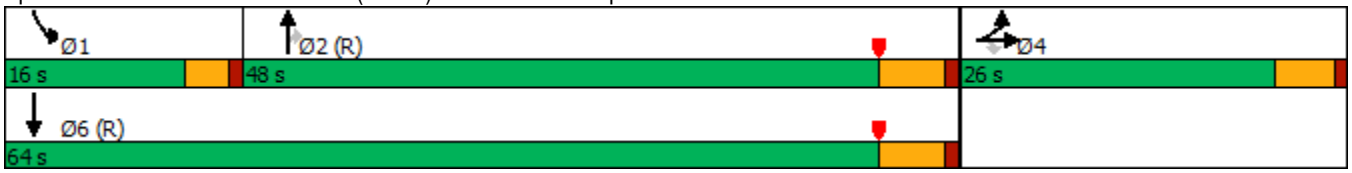
Notes

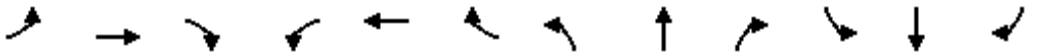
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	520	3	653	1206	859	459	1567
Future Volume (vph)	520	3	653	1206	859	459	1567
Turn Type	Split	NA	Perm	NA	Perm	Prot	NA
Protected Phases	4	4		2		1	6
Permitted Phases			4		2		
Detector Phase	4	4	4	2	2	1	6
Switch Phase							
Minimum Initial (s)	6.0	6.0	6.0	10.0	10.0	5.0	10.0
Minimum Split (s)	11.0	11.0	11.0	22.5	22.5	9.0	22.5
Total Split (s)	26.0	26.0	26.0	48.0	48.0	16.0	64.0
Total Split (%)	28.9%	28.9%	28.9%	53.3%	53.3%	17.8%	71.1%
Yellow Time (s)	4.0	4.0	4.0	4.5	4.5	3.0	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.5	5.5	4.0	5.5
Lead/Lag				Lag	Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	
Recall Mode	None	None	None	C-Min	C-Min	None	C-Min
Act Effct Green (s)	21.0	21.0	21.0	42.5	42.5	12.0	58.5
Actuated g/C Ratio	0.23	0.23	0.23	0.47	0.47	0.13	0.65
v/c Ratio	1.07	1.08	0.95	0.74	0.81	1.04	0.70
Control Delay	99.4	100.1	62.8	22.7	11.9	77.7	5.6
Queue Delay	13.0	10.0	0.0	0.0	0.0	0.0	2.2
Total Delay	112.4	110.1	62.8	22.7	11.9	77.7	7.8
LOS	F	F	E	C	B	E	A
Approach Delay		95.6		18.2			23.6
Approach LOS		F		B			C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.08	
Intersection Signal Delay: 37.6	Intersection LOS: D
Intersection Capacity Utilization 149.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 20: Euclid Av. (SR-83) & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	520	3	653	0	0	0	0	1206	859	459	1567	0
Future Volume (veh/h)	520	3	653	0	0	0	0	1206	859	459	1567	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	758	0	408				0	1269	705	483	1649	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	844	0	376				0	1705	749	468	2346	0
Arrive On Green	0.23	0.00	0.23				0.00	0.47	0.47	0.27	1.00	0.00
Sat Flow, veh/h	3619	0	1610				0	3705	1586	3510	3705	0
Grp Volume(v), veh/h	758	0	408				0	1269	705	483	1649	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1805	1586	1755	1805	0
Q Serve(g_s), s	18.3	0.0	21.0				0.0	25.7	38.0	12.0	0.0	0.0
Cycle Q Clear(g_c), s	18.3	0.0	21.0				0.0	25.7	38.0	12.0	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	844	0	376				0	1705	749	468	2347	0
V/C Ratio(X)	0.90	0.00	1.09				0.00	0.74	0.94	1.03	0.70	0.00
Avail Cap(c_a), veh/h	844	0	376				0	1705	749	468	2347	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.44	0.44	0.21	0.21	0.00
Uniform Delay (d), s/veh	33.5	0.0	34.5				0.0	19.3	22.6	33.0	0.0	0.0
Incr Delay (d2), s/veh	12.0	0.0	71.4				0.0	1.3	11.7	27.8	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	0.0	15.1				0.0	9.9	15.0	5.9	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.5	0.0	105.9				0.0	20.7	34.3	60.8	0.4	0.0
LnGrp LOS	D	A	F				A	C	C	F	A	A
Approach Vol, veh/h		1166						1974			2132	
Approach Delay, s/veh		66.6						25.5			14.1	
Approach LOS		E						C			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	16.0	48.0		26.0		64.0
Change Period (Y+Rc), s	4.0	5.5		5.0		5.5
Max Green Setting (Gmax), s	12.0	42.5		21.0		58.5
Max Q Clear Time (g_c+I1), s	14.0	40.0		23.0		2.0
Green Ext Time (p_c), s	0.0	2.3		0.0		29.5

Intersection Summary		
HCM 6th Ctrl Delay		30.0
HCM 6th LOS		C

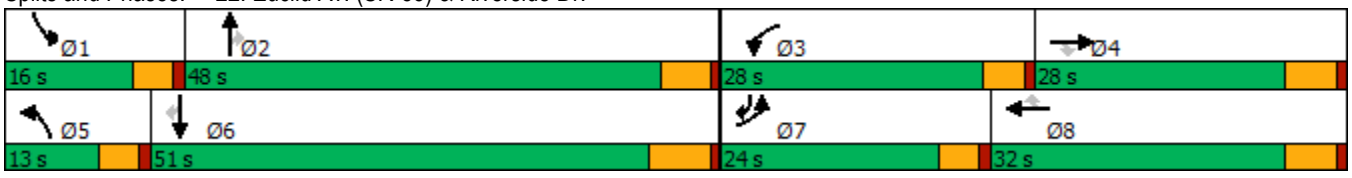
Notes

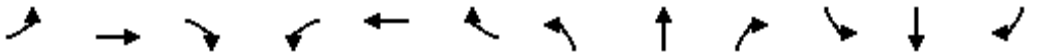
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	193	453	126	239	616	145	155	1317	201	219	1574	192
Future Volume (vph)	193	453	126	239	616	145	155	1317	201	219	1574	192
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	25.8	25.8	9.6	31.8	31.8	9.6	30.4	30.4	9.6	34.5	9.6
Total Split (s)	24.0	28.0	28.0	28.0	32.0	32.0	13.0	48.0	48.0	16.0	51.0	24.0
Total Split (%)	20.0%	23.3%	23.3%	23.3%	26.7%	26.7%	10.8%	40.0%	40.0%	13.3%	42.5%	20.0%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-1.8	-1.8	-0.6	-1.8	-1.8	-0.6	-1.4	-1.4	-0.6	-2.5	-0.6
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	None
Act Effct Green (s)	17.2	22.6	22.6	20.5	25.9	25.9	8.7	44.6	44.6	11.2	47.2	64.4
Actuated g/C Ratio	0.15	0.20	0.20	0.18	0.23	0.23	0.08	0.39	0.39	0.10	0.41	0.56
v/c Ratio	0.79	0.67	0.31	0.83	0.80	0.32	0.65	0.69	0.28	0.71	0.78	0.22
Control Delay	70.0	48.5	8.9	68.1	50.6	7.8	65.9	32.5	4.4	64.1	33.4	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.0	48.5	8.9	68.1	50.6	7.8	65.9	32.5	4.4	64.1	33.4	8.0
LOS	E	D	A	E	D	A	E	C	A	E	C	A
Approach Delay		47.4			48.6			32.2			34.3	
Approach LOS		D			D			C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 115	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 38.2	Intersection LOS: D
Intersection Capacity Utilization 76.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 22: Euclid Av. (SR-83) & Riverside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	453	126	239	616	145	155	1317	201	219	1574	192
Future Volume (veh/h)	193	453	126	239	616	145	155	1317	201	219	1574	192
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	203	477	117	252	648	124	163	1386	172	231	1657	143
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	239	699	312	288	802	358	236	2042	634	305	2200	880
Arrive On Green	0.14	0.19	0.19	0.17	0.22	0.22	0.07	0.39	0.39	0.09	0.42	0.41
Sat Flow, veh/h	1714	3610	1610	1714	3610	1610	3326	5187	1610	3326	5187	1609
Grp Volume(v), veh/h	203	477	117	252	648	124	163	1386	172	231	1657	143
Grp Sat Flow(s),veh/h/ln	1714	1805	1610	1714	1805	1610	1663	1729	1610	1663	1729	1609
Q Serve(g_s), s	12.9	13.7	7.1	16.0	19.0	7.3	5.4	24.7	8.1	7.6	30.2	4.9
Cycle Q Clear(g_c), s	12.9	13.7	7.1	16.0	19.0	7.3	5.4	24.7	8.1	7.6	30.2	4.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	239	699	312	288	802	358	236	2042	634	305	2200	880
V/C Ratio(X)	0.85	0.68	0.38	0.87	0.81	0.35	0.69	0.68	0.27	0.76	0.75	0.16
Avail Cap(c_a), veh/h	307	775	346	368	904	403	268	2042	634	357	2200	880
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.9	41.9	39.2	45.3	41.2	36.6	50.7	28.0	23.0	49.6	27.2	12.6
Incr Delay (d2), s/veh	13.3	2.2	0.7	14.5	5.0	0.6	4.6	1.8	1.1	6.1	2.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	6.1	2.8	7.7	8.7	2.8	2.3	9.7	3.1	3.3	12.3	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.3	44.0	39.9	59.9	46.2	37.2	55.3	29.9	24.1	55.7	29.7	13.0
LnGrp LOS	E	D	D	E	D	D	E	C	C	E	C	B
Approach Vol, veh/h		797			1024			1721			2031	
Approach Delay, s/veh		47.6			48.5			31.7			31.5	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.3	49.1	22.8	25.6	11.9	51.4	19.6	28.8
Change Period (Y+Rc), s	4.6	* 6.5	4.6	5.8	4.6	6.5	4.6	5.8
Max Green Setting (Gmax), s	11.4	* 43	23.4	22.2	8.4	44.5	19.4	26.2
Max Q Clear Time (g_c+I1), s	9.6	26.7	18.0	15.7	7.4	32.2	14.9	21.0
Green Ext Time (p_c), s	0.1	8.3	0.2	1.8	0.0	8.6	0.1	2.0

Intersection Summary	
HCM 6th Ctrl Delay	37.0
HCM 6th LOS	D

Notes

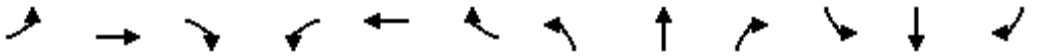
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	131	243	63	103	285	67	1415	180	70	1705	116
Future Volume (vph)	131	243	63	103	285	67	1415	180	70	1705	116
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	28.8	28.8	28.8	33.8	33.8	9.6	24.2	24.2	9.6	31.5	31.5
Total Split (s)	49.0	49.0	49.0	49.0	49.0	13.0	56.2	56.2	14.8	58.0	58.0
Total Split (%)	40.8%	40.8%	40.8%	40.8%	40.8%	10.8%	46.8%	46.8%	12.3%	48.3%	48.3%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	3.6	4.2	4.2	3.6	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.8	-1.8	-1.8	-1.8	-1.8	-0.6	-1.2	-1.2	-0.6	-2.5	-2.5
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max
Act Effct Green (s)	30.6	30.6	30.6	30.6	30.6	8.0	54.4	54.4	8.8	55.2	55.2
Actuated g/C Ratio	0.30	0.30	0.30	0.30	0.30	0.08	0.53	0.53	0.09	0.53	0.53
v/c Ratio	1.06	0.46	0.13	0.48	0.71	0.54	0.55	0.22	0.51	0.66	0.14
Control Delay	132.1	32.2	5.6	37.3	38.6	65.7	20.1	12.1	61.9	21.5	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	132.1	32.2	5.6	37.3	38.6	65.7	20.1	12.1	61.9	21.5	4.8
LOS	F	C	A	D	D	E	C	B	E	C	A
Approach Delay		58.2			38.3		21.1			22.0	
Approach LOS		E			D		C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 103.5	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay: 26.9	Intersection LOS: C
Intersection Capacity Utilization 78.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 23: Euclid Av. (SR-83) & Chino Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	243	63	103	285	80	67	1415	180	70	1705	116
Future Volume (veh/h)	131	243	63	103	285	80	67	1415	180	70	1705	116
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	139	259	51	110	303	73	71	1505	167	74	1814	92
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	245	657	556	328	510	123	99	2460	764	103	2532	770
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.33	0.06	0.47	0.47	0.06	0.49	0.49
Sat Flow, veh/h	1023	1900	1609	1086	1475	355	1714	5187	1610	1714	5187	1577
Grp Volume(v), veh/h	139	259	51	110	0	376	71	1505	167	74	1814	92
Grp Sat Flow(s),veh/h/ln	1023	1900	1609	1086	0	1831	1714	1729	1610	1714	1729	1577
Q Serve(g_s), s	14.3	11.4	2.4	9.4	0.0	18.8	4.5	23.8	6.7	4.7	30.5	3.5
Cycle Q Clear(g_c), s	33.1	11.4	2.4	20.9	0.0	18.8	4.5	23.8	6.7	4.7	30.5	3.5
Prop In Lane	1.00		1.00	1.00		0.19	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	245	657	556	328	0	633	99	2460	764	103	2532	770
V/C Ratio(X)	0.57	0.39	0.09	0.33	0.00	0.59	0.72	0.61	0.22	0.72	0.72	0.12
Avail Cap(c_a), veh/h	308	773	654	395	0	745	139	2460	764	167	2532	770
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.4	27.4	24.5	35.3	0.0	30.0	51.2	21.5	17.1	51.1	22.3	15.4
Incr Delay (d2), s/veh	2.1	0.4	0.1	0.6	0.0	0.9	4.4	1.1	0.7	3.5	1.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	5.0	0.9	2.5	0.0	8.0	2.0	8.8	2.4	2.0	11.3	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.5	27.8	24.5	35.9	0.0	30.9	55.6	22.7	17.7	54.6	24.1	15.7
LnGrp LOS	D	C	C	D	A	C	E	C	B	D	C	B
Approach Vol, veh/h		449			486			1743			1980	
Approach Delay, s/veh		32.9			32.0			23.6			24.8	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.6	57.8		42.2	10.4	58.0		42.2				
Change Period (Y+Rc), s	4.6	* 6.5		5.8	4.6	6.5		5.8				
Max Green Setting (Gmax), s	10.2	* 51		43.2	8.4	51.5		43.2				
Max Q Clear Time (g_c+I1), s	6.7	25.8		35.1	6.5	32.5		22.9				
Green Ext Time (p_c), s	0.0	11.6		1.4	0.0	11.9		2.5				

Intersection Summary			
HCM 6th Ctrl Delay		25.9	
HCM 6th LOS		C	

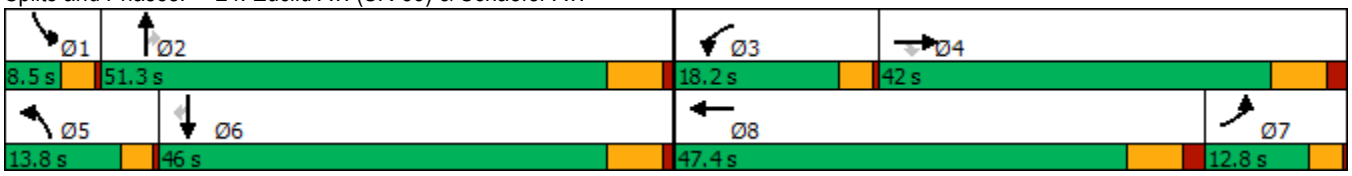
Notes

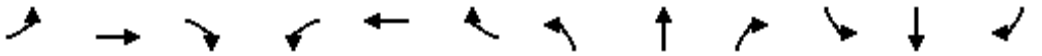
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	193	92	98	177	377	229	1376	44	39	1605	457
Future Volume (vph)	193	92	98	177	377	229	1376	44	39	1605	457
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.5	42.0	42.0	13.5	43.0	8.5	33.0	33.0	8.5	28.0	28.0
Total Split (s)	12.8	42.0	42.0	18.2	47.4	13.8	51.3	51.3	8.5	46.0	46.0
Total Split (%)	10.7%	35.0%	35.0%	15.2%	39.5%	11.5%	42.8%	42.8%	7.1%	38.3%	38.3%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.5	-3.0	-3.0	0.5	-3.0	0.5	-2.0	-2.0	0.5	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	8.7	36.6	36.6	14.1	41.9	9.8	49.1	49.1	4.5	42.0	42.0
Actuated g/C Ratio	0.07	0.31	0.31	0.12	0.35	0.08	0.41	0.41	0.04	0.35	0.35
v/c Ratio	0.85	0.17	0.18	0.94	0.93	0.90	0.69	0.06	0.33	0.94	0.66
Control Delay	84.6	30.7	4.3	101.5	57.9	88.1	31.2	0.2	63.7	48.2	18.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.6	30.7	4.3	101.5	57.9	88.1	31.2	0.2	63.7	48.2	18.8
LOS	F	C	A	F	E	F	C	A	E	D	B
Approach Delay		51.1			68.3		38.3			42.1	
Approach LOS		D			E		D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 118.5	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 45.5	Intersection LOS: D
Intersection Capacity Utilization 88.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 24: Euclid Av. (SR-83) & Schaefer Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	92	98	177	377	186	229	1376	44	39	1605	457
Future Volume (veh/h)	193	92	98	177	377	186	229	1376	44	39	1605	457
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	208	99	86	190	405	198	246	1480	37	42	1726	457
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	237	638	541	197	423	207	264	2036	632	89	1764	547
Arrive On Green	0.07	0.34	0.34	0.11	0.35	0.33	0.08	0.39	0.39	0.03	0.34	0.34
Sat Flow, veh/h	3326	1900	1610	1714	1204	588	3326	5187	1610	3326	5187	1607
Grp Volume(v), veh/h	208	99	86	190	0	603	246	1480	37	42	1726	457
Grp Sat Flow(s),veh/h/ln	1663	1900	1610	1714	0	1792	1663	1729	1610	1663	1729	1607
Q Serve(g_s), s	7.7	4.5	4.6	13.6	0.0	40.6	9.1	29.9	1.8	1.5	40.6	22.7
Cycle Q Clear(g_c), s	7.7	4.5	4.6	13.6	0.0	40.6	9.1	29.9	1.8	1.5	40.6	22.7
Prop In Lane	1.00		1.00	1.00		0.33	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	237	638	541	197	0	630	264	2036	632	89	1764	547
V/C Ratio(X)	0.88	0.16	0.16	0.96	0.00	0.96	0.93	0.73	0.06	0.47	0.98	0.84
Avail Cap(c_a), veh/h	237	638	541	197	0	630	264	2036	632	121	1764	547
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.8	28.7	28.8	54.4	0.0	39.6	56.5	31.9	23.3	59.2	40.3	18.5
Incr Delay (d2), s/veh	28.0	0.1	0.1	53.2	0.0	25.6	37.1	1.3	0.0	1.4	16.5	10.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	2.0	1.8	8.6	0.0	21.6	5.0	11.9	0.7	0.6	18.8	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.8	28.8	28.9	107.6	0.0	65.2	93.6	33.2	23.4	60.7	56.8	29.4
LnGrp LOS	F	C	C	F	A	E	F	C	C	E	E	C
Approach Vol, veh/h		393			793			1763			2225	
Approach Delay, s/veh		58.5			75.4			41.4			51.3	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	52.5	18.2	45.5	13.8	46.0	16.3	47.4
Change Period (Y+Rc), s	3.5	6.0	3.5	7.0	3.5	6.0	7.0	* 7
Max Green Setting (Gmax), s	5.0	45.3	14.7	35.0	10.3	40.0	9.3	* 40
Max Q Clear Time (g_c+I1), s	3.5	31.9	15.6	6.6	11.1	42.6	9.7	42.6
Green Ext Time (p_c), s	0.0	7.6	0.0	0.6	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	52.2
HCM 6th LOS	D

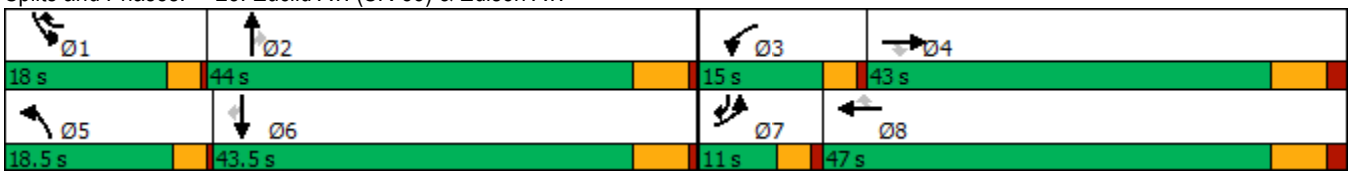
Notes

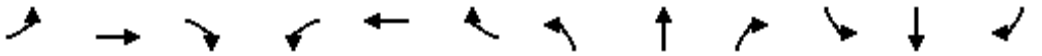
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	196	971	160	207	1121	336	282	1277	151	286	1381	211
Future Volume (vph)	196	971	160	207	1121	336	282	1277	151	286	1381	211
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4		3	8	1	5	2		1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	1	5	2	2	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.0	39.5	39.5	9.0	43.0	8.5	8.5	29.0	29.0	8.5	38.5	9.0
Total Split (s)	11.0	43.0	43.0	15.0	47.0	18.0	18.5	44.0	44.0	18.0	43.5	11.0
Total Split (%)	9.2%	35.8%	35.8%	12.5%	39.2%	15.0%	15.4%	36.7%	36.7%	15.0%	36.3%	9.2%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	3.0	5.0	5.0	3.0	5.0	3.0
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0	0.5	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	-3.0	-3.0	0.0	-3.0	0.5	0.5	-2.0	-2.0	0.5	-2.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	None
Act Effct Green (s)	7.0	38.6	38.6	10.5	42.1	55.0	13.4	38.7	38.7	13.0	38.3	45.3
Actuated g/C Ratio	0.06	0.33	0.33	0.09	0.36	0.47	0.11	0.33	0.33	0.11	0.33	0.39
v/c Ratio	1.09	0.59	0.26	0.77	0.90	0.44	0.82	0.77	0.26	0.81	0.81	0.33
Control Delay	142.6	34.6	5.5	71.0	46.1	16.7	69.8	39.0	11.9	69.0	40.6	17.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	142.6	34.6	5.5	71.0	46.1	16.7	69.8	39.0	11.9	69.0	40.6	17.1
LOS	F	C	A	E	D	B	E	D	B	E	D	B
Approach Delay		47.0			43.3			41.7			42.2	
Approach LOS		D			D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 116.8	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.09	
Intersection Signal Delay: 43.3	Intersection LOS: D
Intersection Capacity Utilization 86.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 25: Euclid Av. (SR-83) & Edison Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	196	971	160	207	1121	336	282	1277	151	286	1381	211
Future Volume (veh/h)	196	971	160	207	1121	336	282	1277	151	286	1381	211
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1900	1900	1700	1900	1900	1700	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	204	1011	112	216	1168	345	294	1330	149	298	1439	169
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	193	1784	553	268	1329	708	335	1701	528	342	1754	585
Arrive On Green	0.06	0.34	0.34	0.09	0.37	0.34	0.11	0.33	0.33	0.10	0.32	0.31
Sat Flow, veh/h	3141	5187	1609	3141	3610	1609	3141	5187	1610	3326	5415	1587
Grp Volume(v), veh/h	204	1011	112	216	1168	345	294	1330	149	298	1439	169
Grp Sat Flow(s),veh/h/ln	1570	1729	1609	1570	1805	1609	1570	1729	1610	1663	1805	1587
Q Serve(g_s), s	7.0	18.1	5.6	7.7	34.5	17.5	10.5	26.5	7.8	10.1	27.9	8.6
Cycle Q Clear(g_c), s	7.0	18.1	5.6	7.7	34.5	17.5	10.5	26.5	7.8	10.1	27.9	8.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	193	1784	553	268	1329	708	335	1701	528	342	1754	585
V/C Ratio(X)	1.06	0.57	0.20	0.81	0.88	0.49	0.88	0.78	0.28	0.87	0.82	0.29
Avail Cap(c_a), veh/h	193	1784	553	303	1359	722	399	1817	564	408	1873	620
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.6	30.5	26.4	51.3	33.7	22.8	50.3	34.7	28.4	50.5	35.5	25.5
Incr Delay (d2), s/veh	81.5	0.4	0.2	11.6	6.8	0.5	15.6	2.2	0.3	14.5	2.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	7.3	2.1	3.4	15.5	6.3	4.7	10.7	3.0	4.7	11.9	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	135.1	31.0	26.6	62.9	40.5	23.3	65.8	36.8	28.7	65.0	38.4	25.8
LnGrp LOS	F	C	C	E	D	C	E	D	C	E	D	C
Approach Vol, veh/h		1327			1729			1773			1906	
Approach Delay, s/veh		46.6			39.9			41.0			41.5	
Approach LOS		D			D			D			D	

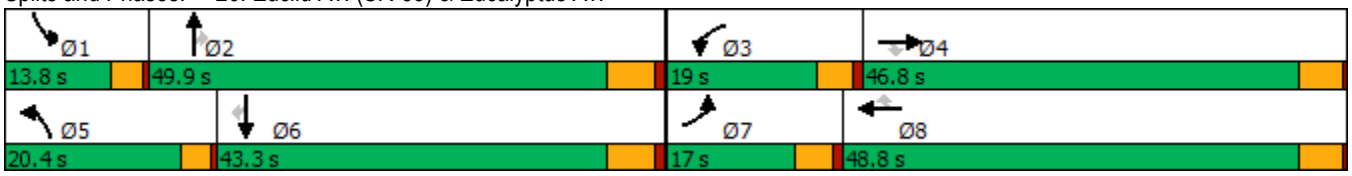
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.7	41.5	13.8	43.3	16.2	41.0	11.0	46.0
Change Period (Y+Rc), s	3.5	6.0	4.0	7.0	3.5	6.0	4.0	7.0
Max Green Setting (Gmax), s	14.5	38.0	11.0	36.0	15.0	37.5	7.0	40.0
Max Q Clear Time (g_c+I1), s	12.1	28.5	9.7	20.1	12.5	29.9	9.0	36.5
Green Ext Time (p_c), s	0.1	5.6	0.1	6.2	0.1	5.1	0.0	2.5

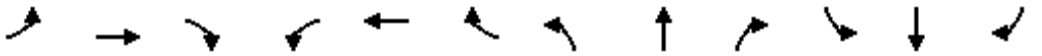
Intersection Summary	
HCM 6th Ctrl Delay	41.9
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	84	42	202	385	194	187	220	1516	133	114	1530	51
Future Volume (vph)	84	42	202	385	194	187	220	1516	133	114	1530	51
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	46.8	46.8	9.5	46.8	46.8	8.5	30.7	30.7	8.5	37.7	37.7
Total Split (s)	17.0	46.8	46.8	19.0	48.8	48.8	20.4	49.9	49.9	13.8	43.3	43.3
Total Split (%)	13.1%	36.1%	36.1%	14.7%	37.7%	37.7%	15.8%	38.5%	38.5%	10.7%	33.4%	33.4%
Yellow Time (s)	3.5	4.3	4.3	3.5	4.3	4.3	3.0	4.7	4.7	3.0	4.7	4.7
All-Red Time (s)	1.0	0.5	0.5	1.0	0.5	0.5	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	-0.5	-0.8	-0.8	-0.5	-0.8	-0.8	0.5	-1.7	-1.7	0.5	-1.7	-1.7
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	10.5	15.5	15.5	15.2	22.7	22.7	16.7	46.6	46.6	9.8	39.7	39.7
Actuated g/C Ratio	0.10	0.15	0.15	0.15	0.22	0.22	0.16	0.45	0.45	0.09	0.38	0.38
v/c Ratio	0.50	0.15	0.50	0.80	0.47	0.38	0.81	0.66	0.18	0.72	0.78	0.08
Control Delay	56.9	36.5	8.8	57.6	39.6	6.7	67.0	25.9	10.0	72.5	33.0	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.9	36.5	8.8	57.6	39.6	6.7	67.0	25.9	10.0	72.5	33.0	0.2
LOS	E	D	A	E	D	A	E	C	B	E	C	A
Approach Delay		24.7			40.6			29.6			34.7	
Approach LOS		C			D			C			C	

Intersection Summary	
Cycle Length: 129.5	
Actuated Cycle Length: 103.3	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 32.9	Intersection LOS: C
Intersection Capacity Utilization 71.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 26: Euclid Av. (SR-83) & Eucalyptus Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	42	202	385	194	187	220	1516	133	114	1530	51
Future Volume (veh/h)	84	42	202	385	194	187	220	1516	133	114	1530	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	86	43	120	393	198	183	224	1547	135	116	1561	41
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	120	210	178	496	360	305	253	2435	756	136	2081	645
Arrive On Green	0.07	0.11	0.11	0.15	0.19	0.19	0.15	0.47	0.47	0.08	0.40	0.40
Sat Flow, veh/h	1714	1900	1610	3326	1900	1610	1714	5187	1610	1714	5187	1608
Grp Volume(v), veh/h	86	43	120	393	198	183	224	1547	135	116	1561	41
Grp Sat Flow(s),veh/h/ln	1714	1900	1610	1663	1900	1610	1714	1729	1610	1714	1729	1608
Q Serve(g_s), s	4.1	1.7	6.0	9.5	7.9	8.7	10.7	18.8	4.0	5.6	21.5	1.3
Cycle Q Clear(g_c), s	4.1	1.7	6.0	9.5	7.9	8.7	10.7	18.8	4.0	5.6	21.5	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	120	210	178	496	360	305	253	2435	756	136	2081	645
V/C Ratio(X)	0.72	0.20	0.67	0.79	0.55	0.60	0.89	0.64	0.18	0.86	0.75	0.06
Avail Cap(c_a), veh/h	267	975	826	598	1021	865	337	2855	886	201	2444	758
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.0	33.8	35.6	34.2	30.6	30.9	34.9	16.7	12.8	37.9	21.4	15.3
Incr Delay (d2), s/veh	7.8	0.4	3.3	6.0	1.0	1.4	18.0	0.4	0.1	17.7	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.8	2.4	4.0	3.5	3.3	5.3	6.2	1.3	2.8	7.6	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.7	34.1	38.9	40.2	31.5	32.3	52.9	17.1	12.9	55.7	22.5	15.4
LnGrp LOS	D	C	D	D	C	C	D	B	B	E	C	B
Approach Vol, veh/h		249			774			1906			1718	
Approach Delay, s/veh		40.4			36.1			21.0			24.6	
Approach LOS		D			D			C			C	

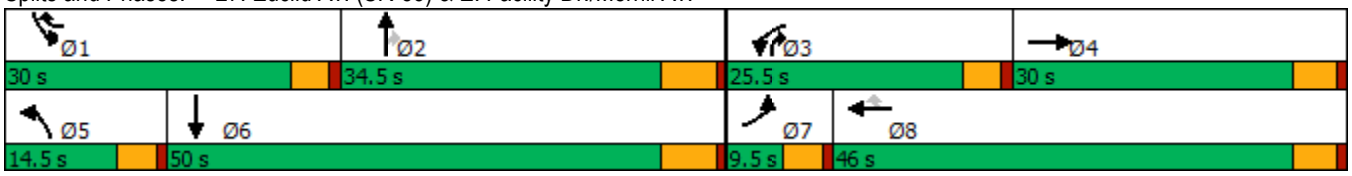
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.6	43.1	16.4	13.2	16.3	37.5	9.8	19.8
Change Period (Y+Rc), s	3.5	5.7	4.5	4.8	3.5	5.7	4.5	4.8
Max Green Setting (Gmax), s	10.3	44.2	14.5	42.0	16.9	37.6	12.5	44.0
Max Q Clear Time (g_c+I1), s	7.6	20.8	11.5	8.0	12.7	23.5	6.1	10.7
Green Ext Time (p_c), s	0.0	11.4	0.4	0.4	0.2	8.3	0.1	1.2

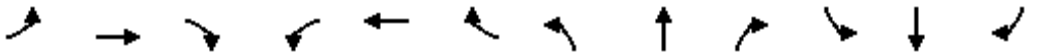
Intersection Summary	
HCM 6th Ctrl Delay	25.9
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	10	10	385	60	458	13	1282	442	364	1450
Future Volume (vph)	10	10	385	60	458	13	1282	442	364	1450
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	3	8	1	5	2	3	1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	1	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	15.0	10.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	9.5	10.0	9.5	46.0	14.5	14.5	28.0	9.5	14.5	28.0
Total Split (s)	9.5	30.0	25.5	46.0	30.0	14.5	34.5	25.5	30.0	50.0
Total Split (%)	7.9%	25.0%	21.3%	38.3%	25.0%	12.1%	28.8%	21.3%	25.0%	41.7%
Yellow Time (s)	3.5	4.0	3.5	4.0	3.5	3.5	5.0	3.5	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.5	-1.0	-0.5	-1.0	-0.5	-0.5	-2.0	-0.5	-0.5	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	None	Min
Act Effct Green (s)	5.6	9.5	18.3	25.8	56.3	10.7	31.0	53.4	26.4	59.2
Actuated g/C Ratio	0.06	0.10	0.19	0.27	0.58	0.11	0.32	0.55	0.27	0.61
v/c Ratio	0.10	0.17	0.63	0.12	0.48	0.07	0.80	0.46	0.80	0.49
Control Delay	52.2	23.2	42.8	26.6	10.1	46.0	36.2	8.9	50.0	14.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.2	23.2	42.8	26.6	10.1	46.0	36.2	8.9	50.0	14.8
LOS	D	C	D	C	B	D	D	A	D	B
Approach Delay		30.1		25.1			29.4			21.7
Approach LOS		C		C			C			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 97	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 25.4	Intersection LOS: C
Intersection Capacity Utilization 74.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 27: Euclid Av. (SR-83) & E. Facility Dr./Merrill Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	10	21	385	60	458	13	1282	442	364	1450	49
Future Volume (veh/h)	10	10	21	385	60	458	13	1282	442	364	1450	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	10	10	21	397	62	445	13	1322	413	375	1495	37
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	31	59	123	508	460	772	62	1662	735	416	2739	68
Arrive On Green	0.02	0.11	0.10	0.15	0.24	0.24	0.04	0.32	0.30	0.24	0.53	0.50
Sat Flow, veh/h	1714	546	1147	3326	1900	1610	1714	5187	1610	1714	5203	129
Grp Volume(v), veh/h	10	0	31	397	62	445	13	1322	413	375	994	538
Grp Sat Flow(s),veh/h/ln	1714	0	1694	1663	1900	1610	1714	1729	1610	1714	1729	1873
Q Serve(g_s), s	0.5	0.0	1.5	10.4	2.3	18.0	0.7	21.0	16.9	19.2	17.2	17.3
Cycle Q Clear(g_c), s	0.5	0.0	1.5	10.4	2.3	18.0	0.7	21.0	16.9	19.2	17.2	17.3
Prop In Lane	1.00		0.68	1.00		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	31	0	182	508	460	772	62	1662	735	416	1821	986
V/C Ratio(X)	0.33	0.00	0.17	0.78	0.13	0.58	0.21	0.80	0.56	0.90	0.55	0.55
Avail Cap(c_a), veh/h	104	0	487	791	883	1130	199	1751	763	493	1821	986
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.8	0.0	37.0	36.8	26.8	16.9	42.3	28.0	18.0	33.2	14.2	14.3
Incr Delay (d2), s/veh	6.1	0.0	0.2	2.7	0.0	0.3	0.6	2.5	0.9	16.3	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.6	4.1	1.0	5.8	0.3	8.1	5.6	9.1	5.6	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.9	0.0	37.1	39.5	26.9	17.2	42.9	30.5	18.8	49.5	14.5	14.9
LnGrp LOS	D	A	D	D	C	B	D	C	B	D	B	B
Approach Vol, veh/h		41			904			1748			1907	
Approach Delay, s/veh		40.3			27.7			27.9			21.5	
Approach LOS		D			C			C			C	

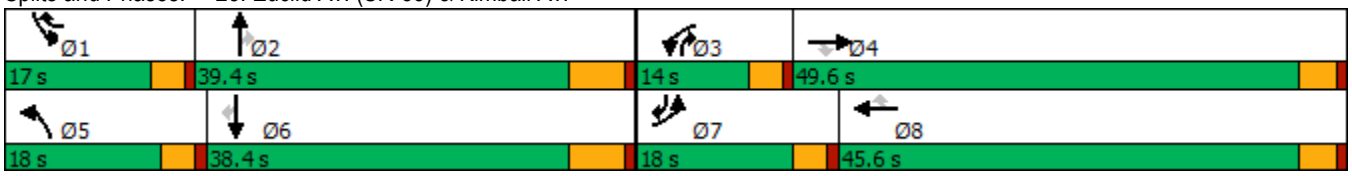
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.9	32.9	17.8	13.7	7.3	51.6	5.6	25.9
Change Period (Y+Rc), s	4.5	6.0	4.5	5.0	4.5	6.0	4.5	5.0
Max Green Setting (Gmax), s	25.5	28.5	21.0	25.0	10.0	44.0	5.0	41.0
Max Q Clear Time (g_c+I1), s	21.2	23.0	12.4	3.5	2.7	19.3	2.5	20.0
Green Ext Time (p_c), s	0.2	3.9	0.9	0.1	0.0	10.3	0.0	0.9

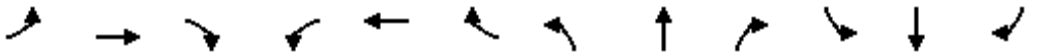
Intersection Summary	
HCM 6th Ctrl Delay	25.3
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	213	322	109	189	941	418	178	1216	57	280	1209	483
Future Volume (vph)	213	322	109	189	941	418	178	1216	57	280	1209	483
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4		3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	14.0	49.5	49.5	14.0	45.5	9.0	14.0	36.0	14.0	9.0	33.0	14.0
Total Split (s)	18.0	49.6	49.6	14.0	45.6	17.0	18.0	39.4	14.0	17.0	38.4	18.0
Total Split (%)	15.0%	41.3%	41.3%	11.7%	38.0%	14.2%	15.0%	32.8%	11.7%	14.2%	32.0%	15.0%
Yellow Time (s)	3.0	3.5	3.5	3.0	3.5	3.0	3.0	5.0	3.0	3.0	5.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	-0.5	-0.5	0.0	-0.5	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	None	Min	None
Act Effct Green (s)	12.0	36.1	36.1	10.1	34.2	50.7	13.7	33.5	47.7	12.5	32.3	44.3
Actuated g/C Ratio	0.11	0.33	0.33	0.09	0.32	0.47	0.13	0.31	0.44	0.12	0.30	0.41
v/c Ratio	0.62	0.27	0.18	0.62	0.84	0.54	0.84	0.77	0.08	0.79	0.80	0.72
Control Delay	56.2	27.0	5.3	59.3	42.7	20.3	80.6	38.8	5.8	65.2	40.5	29.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.2	27.0	5.3	59.3	42.7	20.3	80.6	38.8	5.8	65.2	40.5	29.0
LOS	E	C	A	E	D	C	F	D	A	E	D	C
Approach Delay		33.0			38.7			42.7			41.2	
Approach LOS		C			D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 108.4	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 40.0	Intersection LOS: D
Intersection Capacity Utilization 81.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 28: Euclid Av. (SR-83) & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	213	322	109	189	941	418	178	1216	57	280	1209	483
Future Volume (veh/h)	213	322	109	189	941	418	178	1216	57	280	1209	483
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1900	1900	1800	1900	1900	1800	1900	1900	1700	1900	1900
Adj Flow Rate, veh/h	217	329	102	193	960	391	182	1241	46	286	1234	364
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	308	1136	507	325	1136	676	211	1662	642	345	1592	615
Arrive On Green	0.10	0.31	0.31	0.10	0.31	0.31	0.12	0.32	0.30	0.11	0.31	0.29
Sat Flow, veh/h	3141	3610	1610	3326	3610	1610	1714	5187	1610	3141	5187	1590
Grp Volume(v), veh/h	217	329	102	193	960	391	182	1241	46	286	1234	364
Grp Sat Flow(s),veh/h/ln	1570	1805	1610	1663	1805	1610	1714	1729	1610	1570	1729	1590
Q Serve(g_s), s	6.8	7.0	4.7	5.7	25.3	19.0	10.6	21.8	1.8	9.1	22.0	18.6
Cycle Q Clear(g_c), s	6.8	7.0	4.7	5.7	25.3	19.0	10.6	21.8	1.8	9.1	22.0	18.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	308	1136	507	325	1136	676	211	1662	642	345	1592	615
V/C Ratio(X)	0.71	0.29	0.20	0.59	0.85	0.58	0.86	0.75	0.07	0.83	0.77	0.59
Avail Cap(c_a), veh/h	432	1616	721	327	1474	827	236	1803	685	401	1752	663
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.5	26.3	25.5	44.0	32.6	22.7	43.8	30.9	19.0	44.4	32.1	25.0
Incr Delay (d2), s/veh	1.2	0.1	0.2	2.0	3.0	0.3	22.5	1.6	0.0	10.5	2.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	2.9	1.7	2.3	10.8	6.7	5.5	8.5	0.6	3.8	8.7	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.7	26.4	25.7	46.0	35.6	23.0	66.3	32.5	19.0	54.9	34.1	26.2
LnGrp LOS	D	C	C	D	D	C	E	C	B	D	C	C
Approach Vol, veh/h		648			1544			1469			1884	
Approach Delay, s/veh		32.8			33.7			36.3			35.8	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.2	36.6	14.0	36.1	16.6	35.3	14.0	36.0
Change Period (Y+Rc), s	4.0	6.0	4.0	4.5	4.0	6.0	4.0	4.5
Max Green Setting (Gmax), s	13.0	33.4	10.0	45.1	14.0	32.4	14.0	41.1
Max Q Clear Time (g_c+I1), s	11.1	23.8	7.7	9.0	12.6	24.0	8.8	27.3
Green Ext Time (p_c), s	0.1	5.2	0.1	2.4	0.0	5.2	0.2	4.3

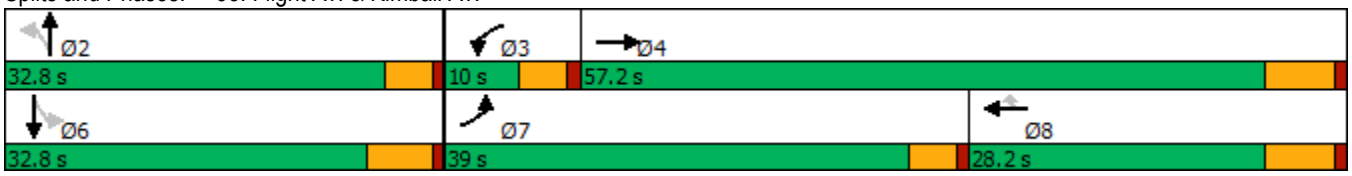
Intersection Summary	
HCM 6th Ctrl Delay	35.0
HCM 6th LOS	C

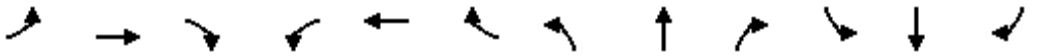
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	608	519	17	715	147	7	12	176	12
Future Volume (vph)	608	519	17	715	147	7	12	176	12
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA
Protected Phases	7	4	3	8			2		6
Permitted Phases					8	2		6	
Detector Phase	7	4	3	8	8	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.2	9.6	28.2	28.2	31.6	31.6	32.8	32.8
Total Split (s)	39.0	57.2	10.0	28.2	28.2	32.8	32.8	32.8	32.8
Total Split (%)	39.0%	57.2%	10.0%	28.2%	28.2%	32.8%	32.8%	32.8%	32.8%
Yellow Time (s)	3.6	5.2	3.6	5.2	5.2	3.6	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	6.2	6.2		4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	Min	Min	Min	Min

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 95.8
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 38: Flight Av. & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	608	519	24	17	715	147	7	12	176	176	12	134
Future Volume (veh/h)	608	519	24	17	715	147	7	12	176	176	12	134
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	640	546	25	18	753	155	7	13	185	185	13	141
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	621	2007	92	34	825	368	44	33	344	288	32	350
Arrive On Green	0.36	0.57	0.57	0.02	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1714	3515	161	1714	3610	1610	19	140	1467	1140	138	1493
Grp Volume(v), veh/h	640	280	291	18	753	155	205	0	0	185	0	154
Grp Sat Flow(s),veh/h/ln	1714	1805	1871	1714	1805	1610	1626	0	0	1140	0	1631
Q Serve(g_s), s	34.4	7.5	7.5	1.0	19.3	7.8	0.0	0.0	0.0	9.1	0.0	7.6
Cycle Q Clear(g_c), s	34.4	7.5	7.5	1.0	19.3	7.8	10.4	0.0	0.0	19.5	0.0	7.6
Prop In Lane	1.00		0.09	1.00		1.00	0.03		0.90	1.00		0.92
Lane Grp Cap(c), veh/h	621	1030	1068	34	825	368	420	0	0	288	0	382
V/C Ratio(X)	1.03	0.27	0.27	0.53	0.91	0.42	0.49	0.00	0.00	0.64	0.00	0.40
Avail Cap(c_a), veh/h	621	1030	1068	98	836	373	521	0	0	345	0	464
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.3	10.3	10.4	46.1	35.7	31.3	31.8	0.0	0.0	36.6	0.0	30.7
Incr Delay (d2), s/veh	44.1	0.1	0.1	4.6	14.2	0.8	0.9	0.0	0.0	3.0	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.3	2.5	2.6	0.4	9.5	2.9	4.2	0.0	0.0	4.2	0.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.4	10.5	10.5	50.7	49.9	32.0	32.7	0.0	0.0	39.6	0.0	31.4
LnGrp LOS	F	B	B	D	D	C	C	A	A	D	A	C
Approach Vol, veh/h		1211			926			205			339	
Approach Delay, s/veh		44.3			46.9			32.7			35.9	
Approach LOS		D			D			C			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		28.1	6.5	60.4		28.1	39.0	27.9				
Change Period (Y+Rc), s		* 5.8	4.6	6.2		5.8	4.6	6.2				
Max Green Setting (Gmax), s		* 28	5.4	51.0		27.0	34.4	22.0				
Max Q Clear Time (g_c+I1), s		12.4	3.0	9.5		21.5	36.4	21.3				
Green Ext Time (p_c), s		1.1	0.0	3.2		0.7	0.0	0.4				

Intersection Summary		
HCM 6th Ctrl Delay		43.2
HCM 6th LOS		D

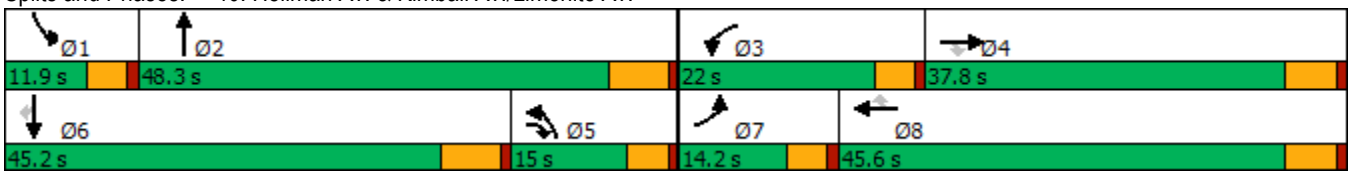
Notes

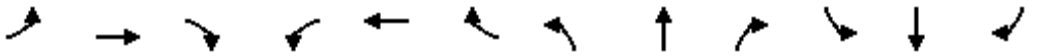
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	55	591	376	331	791	119	163	265	40	45	25
Future Volume (vph)	55	591	376	331	791	119	163	265	40	45	25
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	5	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	37.8	9.6	9.6	37.8	37.8	9.6	43.2	9.6	43.2	43.2
Total Split (s)	14.2	37.8	15.0	22.0	45.6	45.6	15.0	48.3	11.9	45.2	45.2
Total Split (%)	11.8%	31.5%	12.5%	18.3%	38.0%	38.0%	12.5%	40.3%	9.9%	37.7%	37.7%
Yellow Time (s)	3.6	4.8	3.6	3.6	4.8	4.8	3.6	5.2	3.6	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	4.6	5.8	5.8	4.6	6.2	4.6	6.2	6.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	Max	None	None	None	Max	Max	None	None	None
Act Effct Green (s)	7.7	24.5	60.6	15.3	34.5	34.5	33.7	42.9	6.5	15.0	15.0
Actuated g/C Ratio	0.07	0.23	0.57	0.14	0.33	0.33	0.32	0.40	0.06	0.14	0.14
v/c Ratio	0.47	0.75	0.36	0.77	0.71	0.20	0.17	0.40	0.40	0.09	0.07
Control Delay	63.6	44.5	2.1	57.6	36.5	2.3	33.7	14.4	63.8	40.3	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.6	44.5	2.1	57.6	36.5	2.3	33.7	14.4	63.8	40.3	0.4
LOS	E	D	A	E	D	A	C	B	E	D	A
Approach Delay		29.9			38.9			18.7		39.9	
Approach LOS		C			D			B		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 106	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 31.2	Intersection LOS: C
Intersection Capacity Utilization 65.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 40: Hellman Av. & Kimball Av./Limonite Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	591	376	331	791	119	163	265	298	40	45	25
Future Volume (veh/h)	55	591	376	331	791	119	163	265	298	40	45	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1700	1900	1900	1700	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	58	622	396	348	833	125	172	279	314	42	47	26
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	74	807	890	410	1123	501	1033	735	655	58	349	156
Arrive On Green	0.04	0.22	0.22	0.13	0.31	0.31	0.33	0.41	0.41	0.03	0.10	0.10
Sat Flow, veh/h	1714	3610	1610	3141	3610	1610	3141	1805	1610	1714	3610	1610
Grp Volume(v), veh/h	58	622	396	348	833	125	172	279	314	42	47	26
Grp Sat Flow(s),veh/h/ln	1714	1805	1610	1570	1805	1610	1570	1805	1610	1714	1805	1610
Q Serve(g_s), s	3.5	16.7	5.9	11.2	21.4	6.0	4.0	11.2	14.9	2.5	1.2	1.3
Cycle Q Clear(g_c), s	3.5	16.7	5.9	11.2	21.4	6.0	4.0	11.2	14.9	2.5	1.2	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	74	807	890	410	1123	501	1033	735	655	58	349	156
V/C Ratio(X)	0.79	0.77	0.45	0.85	0.74	0.25	0.17	0.38	0.48	0.72	0.13	0.17
Avail Cap(c_a), veh/h	159	1117	1028	528	1389	620	1033	735	655	121	1361	607
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.0	37.7	3.8	44.0	31.9	26.6	24.6	21.5	22.6	49.5	42.8	30.0
Incr Delay (d2), s/veh	6.8	2.2	0.4	8.2	1.7	0.3	0.3	1.5	2.5	6.2	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	7.3	2.2	4.7	9.0	2.2	1.5	4.7	5.6	1.1	0.5	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.8	39.9	4.1	52.2	33.6	26.9	25.0	23.0	25.1	55.7	42.9	30.5
LnGrp LOS	E	D	A	D	C	C	C	C	C	E	D	C
Approach Vol, veh/h		1076			1306			765			115	
Approach Delay, s/veh		27.6			37.9			24.3			44.8	
Approach LOS		C			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	48.3	18.1	28.9	40.2	16.2	9.0	38.0
Change Period (Y+Rc), s	4.6	6.2	4.6	5.8	6.2	* 6.2	4.6	5.8
Max Green Setting (Gmax), s	7.3	42.1	17.4	32.0	10.4	* 39	9.6	39.8
Max Q Clear Time (g_c+I1), s	4.5	16.9	13.2	18.7	6.0	3.3	5.5	23.4
Green Ext Time (p_c), s	0.0	3.4	0.3	4.4	0.1	0.3	0.0	5.2

Intersection Summary	
HCM 6th Ctrl Delay	31.6
HCM 6th LOS	C

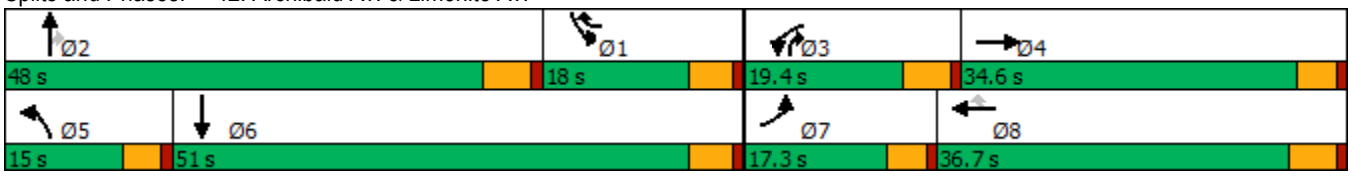
Notes

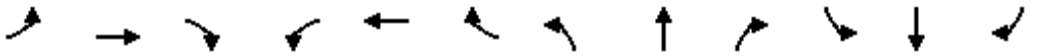
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	213	562	364	791	656	149	1108	372	406	766
Future Volume (vph)	213	562	364	791	656	149	1108	372	406	766
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	3	8	1	5	2	3	1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	1	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	6.0	6.0	6.0	6.0	5.0	6.0	6.0	6.0	6.0
Minimum Split (s)	9.6	34.6	11.3	36.3	11.0	9.5	46.3	11.3	11.0	43.0
Total Split (s)	17.3	34.6	19.4	36.7	18.0	15.0	48.0	19.4	18.0	51.0
Total Split (%)	14.4%	28.8%	16.2%	30.6%	15.0%	12.5%	40.0%	16.2%	15.0%	42.5%
Yellow Time (s)	3.6	3.6	4.3	4.3	4.0	3.5	4.3	4.3	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-0.6	-1.3	-1.3	-1.0	-0.5	-1.3	-1.3	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Max	None	None	None	Max	Max
Act Effct Green (s)	12.3	27.8	15.0	30.5	52.4	11.0	36.2	51.2	21.9	47.1
Actuated g/C Ratio	0.11	0.24	0.13	0.26	0.45	0.09	0.31	0.44	0.19	0.40
v/c Ratio	0.61	0.82	0.85	0.87	0.92	0.95	0.68	0.54	0.65	0.46
Control Delay	57.9	49.5	68.4	51.7	38.8	112.2	37.2	12.9	51.2	25.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.9	49.5	68.4	51.7	38.8	112.2	37.2	12.9	51.2	25.1
LOS	E	D	E	D	D	F	D	B	D	C
Approach Delay		51.5		50.4			38.5			32.9
Approach LOS		D		D			D			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 116.9	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 43.0	Intersection LOS: D
Intersection Capacity Utilization 78.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 42: Archibald Av. & Limonite Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	213	562	113	364	791	656	149	1108	372	406	766	186
Future Volume (veh/h)	213	562	113	364	791	656	149	1108	372	406	766	186
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	232	611	123	396	860	654	162	1204	355	441	833	202
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	314	709	142	476	1070	754	170	1725	699	697	1781	429
Arrive On Green	0.09	0.23	0.23	0.13	0.28	0.28	0.09	0.30	0.30	0.19	0.40	0.39
Sat Flow, veh/h	3619	3072	617	3619	3800	1590	1810	5700	1610	3619	4439	1069
Grp Volume(v), veh/h	232	377	357	396	860	654	162	1204	355	441	712	323
Grp Sat Flow(s),veh/h/ln	1810	1900	1789	1810	1900	1590	1810	1900	1610	1810	1900	1708
Q Serve(g_s), s	7.3	22.3	22.4	12.5	24.6	13.0	10.4	21.9	8.6	13.1	16.2	16.4
Cycle Q Clear(g_c), s	7.3	22.3	22.4	12.5	24.6	13.0	10.4	21.9	8.6	13.1	16.2	16.4
Prop In Lane	1.00		0.34	1.00		1.00	1.00		1.00	1.00		0.63
Lane Grp Cap(c), veh/h	314	439	413	476	1070	754	170	1725	699	697	1525	685
V/C Ratio(X)	0.74	0.86	0.86	0.83	0.80	0.87	0.95	0.70	0.51	0.63	0.47	0.47
Avail Cap(c_a), veh/h	411	496	467	476	1070	754	170	2141	816	697	1525	685
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.2	43.2	43.4	49.6	39.1	12.9	52.8	36.1	8.6	43.5	25.8	26.2
Incr Delay (d2), s/veh	5.0	13.1	14.1	11.3	4.2	10.1	54.8	0.8	0.7	4.3	1.0	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	11.7	11.2	6.2	11.5	9.7	7.2	9.8	3.3	6.0	7.0	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.2	56.3	57.5	60.9	43.3	23.1	107.7	37.0	9.3	47.8	26.9	28.5
LnGrp LOS	E	E	E	E	D	C	F	D	A	D	C	C
Approach Vol, veh/h		966			1910			1721			1476	
Approach Delay, s/veh		56.9			40.0			37.9			33.5	
Approach LOS		E			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.6	39.4	19.4	31.7	15.0	51.0	14.2	37.0
Change Period (Y+Rc), s	5.0	5.3	5.3	* 5.3	4.5	5.0	4.6	5.3
Max Green Setting (Gmax), s	13.0	42.7	14.1	* 30	10.5	46.0	12.7	31.4
Max Q Clear Time (g_c+I1), s	15.1	23.9	14.5	24.4	12.4	18.4	9.3	26.6
Green Ext Time (p_c), s	0.0	10.3	0.0	2.0	0.0	4.0	0.2	1.9

Intersection Summary	
HCM 6th Ctrl Delay	40.5
HCM 6th LOS	D

Notes

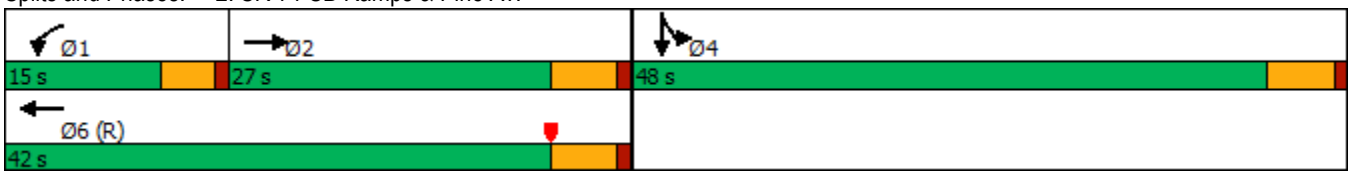
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

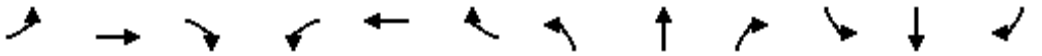
Lane Group	EBT	WBL	WBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	441	121	513	797	8
Future Volume (vph)	441	121	513	797	8
Turn Type	NA	Prot	NA	Split	NA
Protected Phases	2	1	6	4	4
Permitted Phases					
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	8.0	5.0	5.0	5.0	5.0
Minimum Split (s)	25.5	9.6	25.5	37.5	37.5
Total Split (s)	27.0	15.0	42.0	48.0	48.0
Total Split (%)	30.0%	16.7%	46.7%	53.3%	53.3%
Yellow Time (s)	4.5	3.6	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	4.6	5.5	5.5	5.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	None	None	C-Max	Max	Max

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 2: SR-71 SB Ramps & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	441	45	121	513	0	0	0	0	797	8	557
Future Volume (veh/h)	0	441	45	121	513	0	0	0	0	797	8	557
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	464	23	127	540	0				588	359	329
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	933	46	159	1464	0				854	431	395
Arrive On Green	0.00	0.27	0.27	0.09	0.41	0.00				0.47	0.47	0.47
Sat Flow, veh/h	0	3596	173	1810	3705	0				1810	913	837
Grp Volume(v), veh/h	0	239	248	127	540	0				588	0	688
Grp Sat Flow(s),veh/h/ln	0	1805	1869	1810	1805	0				1810	0	1749
Q Serve(g_s), s	0.0	10.1	10.1	6.2	9.4	0.0				22.9	0.0	30.8
Cycle Q Clear(g_c), s	0.0	10.1	10.1	6.2	9.4	0.0				22.9	0.0	30.8
Prop In Lane	0.00		0.09	1.00		0.00				1.00		0.48
Lane Grp Cap(c), veh/h	0	481	498	159	1464	0				854	0	826
V/C Ratio(X)	0.00	0.50	0.50	0.80	0.37	0.00				0.69	0.00	0.83
Avail Cap(c_a), veh/h	0	481	498	209	1464	0				854	0	826
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.95	0.95	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	27.9	27.9	40.3	18.7	0.0				18.6	0.0	20.7
Incr Delay (d2), s/veh	0.0	0.8	0.8	14.2	0.7	0.0				4.5	0.0	9.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.2	4.4	3.3	3.8	0.0				10.0	0.0	13.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	28.7	28.7	54.4	19.4	0.0				23.1	0.0	30.3
LnGrp LOS	A	C	C	D	B	A				C	A	C
Approach Vol, veh/h		487			667						1276	
Approach Delay, s/veh		28.7			26.1						27.0	
Approach LOS		C			C						C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	12.5	29.5		48.0		42.0
Change Period (Y+Rc), s	4.6	5.5		5.5		5.5
Max Green Setting (Gmax), s	10.4	21.5		42.5		36.5
Max Q Clear Time (g_c+I1), s	8.2	12.1		32.8		11.4
Green Ext Time (p_c), s	0.1	1.8		4.9		3.5

Intersection Summary		
HCM 6th Ctrl Delay		27.1
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	360	878	511	500	3	232
Future Volume (vph)	360	878	511	500	3	232
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	5	2	6		8	
Permitted Phases				6		8
Detector Phase	5	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	8.0	8.0	8.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	10.5	10.5
Total Split (s)	18.0	60.0	42.0	42.0	20.0	20.0
Total Split (%)	22.5%	75.0%	52.5%	52.5%	25.0%	25.0%
Yellow Time (s)	3.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 5: SR-71 NB Ramps & Pine Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	360	878	0	0	511	500	123	3	232	0	0	0
Future Volume (veh/h)	360	878	0	0	511	500	123	3	232	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	419	954	0	0	555	543	143	82	199			
Peak Hour Factor	0.86	0.92	0.86	0.92	0.92	0.92	0.86	0.86	0.92			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	511	1294	0	0	1731	772	212	122	292			
Arrive On Green	0.15	0.68	0.00	0.00	0.48	0.48	0.18	0.18	0.18			
Sat Flow, veh/h	3510	1900	0	0	3705	1610	1170	671	1610			
Grp Volume(v), veh/h	419	954	0	0	555	543	225	0	199			
Grp Sat Flow(s),veh/h/ln	1755	1900	0	0	1805	1610	1841	0	1610			
Q Serve(g_s), s	9.3	25.7	0.0	0.0	7.6	21.2	9.1	0.0	9.2			
Cycle Q Clear(g_c), s	9.3	25.7	0.0	0.0	7.6	21.2	9.1	0.0	9.2			
Prop In Lane	1.00		0.00	0.00		1.00	0.64		1.00			
Lane Grp Cap(c), veh/h	511	1294	0	0	1731	772	334	0	292			
V/C Ratio(X)	0.82	0.74	0.00	0.00	0.32	0.70	0.67	0.00	0.68			
Avail Cap(c_a), veh/h	592	1294	0	0	1731	772	334	0	292			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.52	0.52	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	33.2	8.2	0.0	0.0	12.8	16.3	30.5	0.0	30.6			
Incr Delay (d2), s/veh	4.3	2.0	0.0	0.0	0.5	5.3	10.4	0.0	12.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.0	7.9	0.0	0.0	2.8	7.9	4.9	0.0	4.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.5	10.2	0.0	0.0	13.3	21.7	41.0	0.0	42.8			
LnGrp LOS	D	B	A	A	B	C	D	A	D			
Approach Vol, veh/h		1373			1098			424				
Approach Delay, s/veh		18.5			17.4			41.8				
Approach LOS		B			B			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		60.0			16.1	43.9		20.0				
Change Period (Y+Rc), s		5.5			4.5	5.5		5.5				
Max Green Setting (Gmax), s		54.5			13.5	36.5		14.5				
Max Q Clear Time (g_c+I1), s		27.7			11.3	23.2		11.2				
Green Ext Time (p_c), s		8.0			0.4	4.7		0.7				

Intersection Summary	
HCM 6th Ctrl Delay	21.5
HCM 6th LOS	C

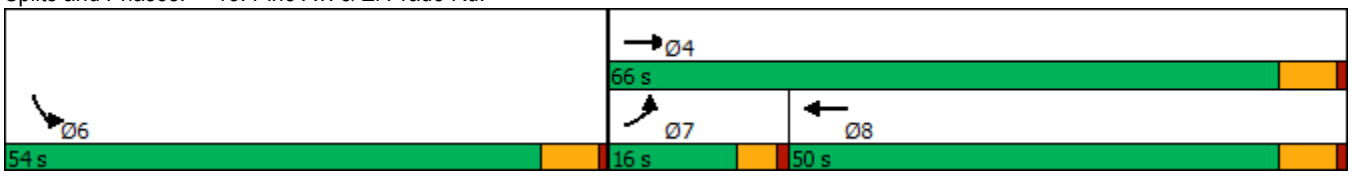
Notes

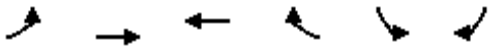
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	48	1233	1046	545
Future Volume (vph)	48	1233	1046	545
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	28.2	33.2
Total Split (s)	16.0	66.0	50.0	54.0
Total Split (%)	13.3%	55.0%	41.7%	45.0%
Yellow Time (s)	3.6	5.2	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	6.2
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 106.3
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 15: Pine Av. & El Prado Rd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	48	1233	1046	143	545	59
Future Volume (veh/h)	48	1233	1046	143	545	59
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1900	1976	1900
Adj Flow Rate, veh/h	52	1340	1137	155	592	64
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	67	1777	1295	176	636	69
Arrive On Green	0.04	0.49	0.41	0.41	0.38	0.38
Sat Flow, veh/h	1714	3705	3288	434	1676	181
Grp Volume(v), veh/h	52	1340	642	650	657	0
Grp Sat Flow(s),veh/h/ln	1714	1805	1805	1822	1860	0
Q Serve(g_s), s	2.9	28.9	31.6	31.9	32.7	0.0
Cycle Q Clear(g_c), s	2.9	28.9	31.6	31.9	32.7	0.0
Prop In Lane	1.00			0.24	0.90	0.10
Lane Grp Cap(c), veh/h	67	1777	732	739	705	0
V/C Ratio(X)	0.78	0.75	0.88	0.88	0.93	0.00
Avail Cap(c_a), veh/h	202	2236	819	826	921	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	46.0	19.8	26.5	26.5	28.8	0.0
Incr Delay (d2), s/veh	7.1	1.1	9.8	10.0	13.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	10.8	14.1	14.3	15.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	53.1	20.9	36.2	36.6	42.1	0.0
LnGrp LOS	D	C	D	D	D	A
Approach Vol, veh/h		1392	1292		657	
Approach Delay, s/veh		22.1	36.4		42.1	
Approach LOS		C	D		D	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			53.7		42.8	8.4	45.4
Change Period (Y+Rc), s			6.2		6.2	4.6	6.2
Max Green Setting (Gmax), s			59.8		47.8	11.4	43.8
Max Q Clear Time (g_c+I1), s			30.9		34.7	4.9	33.9
Green Ext Time (p_c), s			10.6		1.9	0.0	5.3

Intersection Summary	
HCM 6th Ctrl Delay	31.6
HCM 6th LOS	C

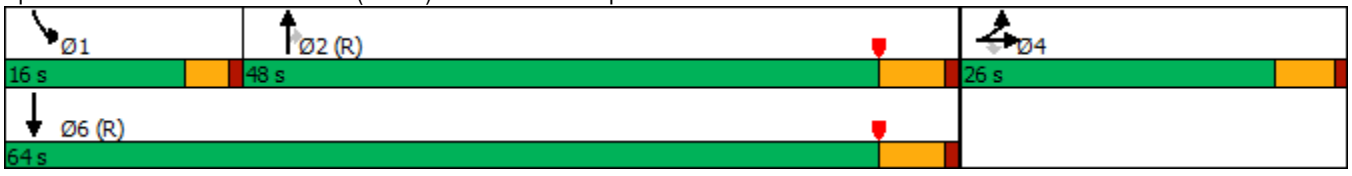
Notes

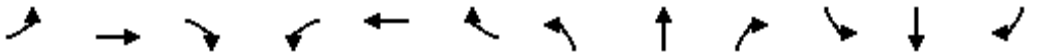
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	505	4	535	1426	765	458	1555
Future Volume (vph)	505	4	535	1426	765	458	1555
Turn Type	Split	NA	Perm	NA	Perm	Prot	NA
Protected Phases	4	4		2		1	6
Permitted Phases			4		2		
Detector Phase	4	4	4	2	2	1	6
Switch Phase							
Minimum Initial (s)	6.0	6.0	6.0	10.0	10.0	5.0	10.0
Minimum Split (s)	11.0	11.0	11.0	22.5	22.5	9.0	22.5
Total Split (s)	26.0	26.0	26.0	48.0	48.0	16.0	64.0
Total Split (%)	28.9%	28.9%	28.9%	53.3%	53.3%	17.8%	71.1%
Yellow Time (s)	4.0	4.0	4.0	4.5	4.5	3.0	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.5	5.5	4.0	5.5
Lead/Lag				Lag	Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	
Recall Mode	None	None	None	C-Min	C-Min	None	C-Min
Act Effct Green (s)	20.6	20.6	20.6	42.5	42.5	12.4	58.9
Actuated g/C Ratio	0.23	0.23	0.23	0.47	0.47	0.14	0.65
v/c Ratio	0.95	0.92	0.82	0.85	0.70	0.97	0.67
Control Delay	69.5	61.4	43.2	27.3	6.5	64.9	4.9
Queue Delay	46.6	48.6	0.0	0.0	0.0	0.0	1.4
Total Delay	116.1	110.0	43.2	27.3	6.5	64.9	6.4
LOS	F	F	D	C	A	E	A
Approach Delay		90.9		20.0			19.7
Approach LOS		F		C			B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 34.0	Intersection LOS: C
Intersection Capacity Utilization 137.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 20: Euclid Av. (SR-83) & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	505	4	535	0	0	0	0	1426	765	458	1555	0
Future Volume (veh/h)	505	4	535	0	0	0	0	1426	765	458	1555	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	666	0	320				0	1455	587	467	1587	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	799	0	356				0	1750	770	468	2392	0
Arrive On Green	0.22	0.00	0.22				0.00	0.48	0.48	0.27	1.00	0.00
Sat Flow, veh/h	3619	0	1610				0	3705	1588	3510	3705	0
Grp Volume(v), veh/h	666	0	320				0	1455	587	467	1587	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1805	1588	1755	1805	0
Q Serve(g_s), s	15.8	0.0	17.4				0.0	31.3	27.2	12.0	0.0	0.0
Cycle Q Clear(g_c), s	15.8	0.0	17.4				0.0	31.3	27.2	12.0	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	799	0	356				0	1750	770	468	2392	0
V/C Ratio(X)	0.83	0.00	0.90				0.00	0.83	0.76	1.00	0.66	0.00
Avail Cap(c_a), veh/h	844	0	376				0	1750	770	468	2392	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.17	0.17	0.26	0.26	0.00
Uniform Delay (d), s/veh	33.5	0.0	34.1				0.0	20.0	19.0	33.0	0.0	0.0
Incr Delay (d2), s/veh	6.4	0.0	22.2				0.0	0.9	1.3	20.6	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	0.0	8.5				0.0	11.8	9.2	5.4	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.8	0.0	56.3				0.0	20.9	20.2	53.6	0.4	0.0
LnGrp LOS	D	A	E				A	C	C	D	A	A
Approach Vol, veh/h		986						2042			2054	
Approach Delay, s/veh		45.2						20.7			12.5	
Approach LOS		D						C			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	16.0	49.1		24.9		65.1
Change Period (Y+Rc), s	4.0	5.5		5.0		5.5
Max Green Setting (Gmax), s	12.0	42.5		21.0		58.5
Max Q Clear Time (g_c+I1), s	14.0	33.3		19.4		2.0
Green Ext Time (p_c), s	0.0	8.0		0.5		27.7

Intersection Summary		
HCM 6th Ctrl Delay		22.1
HCM 6th LOS		C

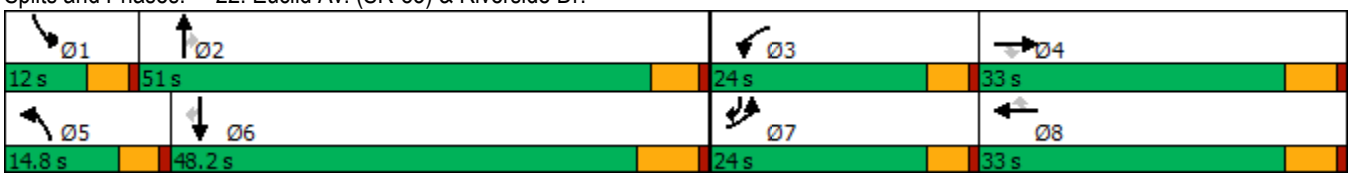
Notes

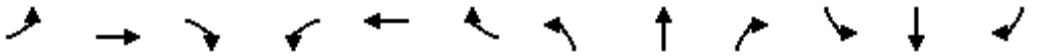
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	234	721	197	228	499	78	196	1644	293	169	1315	345
Future Volume (vph)	234	721	197	228	499	78	196	1644	293	169	1315	345
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	25.8	25.8	9.6	31.8	31.8	9.6	30.4	30.4	9.6	34.5	9.6
Total Split (s)	24.0	33.0	33.0	24.0	33.0	33.0	14.8	51.0	51.0	12.0	48.2	24.0
Total Split (%)	20.0%	27.5%	27.5%	20.0%	27.5%	27.5%	12.3%	42.5%	42.5%	10.0%	40.2%	20.0%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	None
Act Effct Green (s)	18.6	26.7	26.7	18.4	26.6	26.6	9.8	45.6	45.6	7.4	42.1	62.6
Actuated g/C Ratio	0.16	0.23	0.23	0.16	0.22	0.22	0.08	0.38	0.38	0.06	0.35	0.53
v/c Ratio	0.91	0.92	0.42	0.90	0.64	0.18	0.75	0.86	0.39	0.85	0.74	0.41
Control Delay	86.6	63.0	12.5	83.9	46.0	3.5	70.8	39.1	6.7	89.2	36.9	13.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.6	63.0	12.5	83.9	46.0	3.5	70.8	39.1	6.7	89.2	36.9	13.2
LOS	F	E	B	F	D	A	E	D	A	F	D	B
Approach Delay		59.2			52.6			37.6			37.2	
Approach LOS		E			D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 118.6	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 43.7	Intersection LOS: D
Intersection Capacity Utilization 87.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 22: Euclid Av. (SR-83) & Riverside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	721	197	228	499	78	196	1644	293	169	1315	345
Future Volume (veh/h)	234	721	197	228	499	78	196	1644	293	169	1315	345
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	244	751	180	238	520	65	204	1712	251	176	1370	268
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	269	809	361	263	797	355	257	1976	613	206	1896	834
Arrive On Green	0.16	0.22	0.22	0.15	0.22	0.22	0.08	0.38	0.38	0.06	0.37	0.37
Sat Flow, veh/h	1714	3610	1610	1714	3610	1608	3326	5187	1610	3326	5187	1590
Grp Volume(v), veh/h	244	751	180	238	520	65	204	1712	251	176	1370	268
Grp Sat Flow(s),veh/h/ln	1714	1805	1610	1714	1805	1608	1663	1729	1610	1663	1729	1590
Q Serve(g_s), s	16.8	24.4	11.7	16.3	15.7	3.9	7.2	36.5	13.7	6.3	27.3	11.6
Cycle Q Clear(g_c), s	16.8	24.4	11.7	16.3	15.7	3.9	7.2	36.5	13.7	6.3	27.3	11.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	269	809	361	263	797	355	257	1976	613	206	1896	834
V/C Ratio(X)	0.91	0.93	0.50	0.90	0.65	0.18	0.79	0.87	0.41	0.86	0.72	0.32
Avail Cap(c_a), veh/h	278	820	366	278	820	365	283	1976	613	206	1896	834
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.6	45.5	40.6	49.8	42.4	37.9	54.3	34.2	27.2	55.6	32.7	16.4
Incr Delay (d2), s/veh	29.8	16.5	1.1	28.7	1.8	0.2	11.7	5.4	2.0	27.0	2.4	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	12.4	4.6	8.9	7.0	1.5	3.3	15.1	5.4	3.4	11.4	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.4	61.9	41.6	78.5	44.2	38.1	66.0	39.7	29.2	82.7	35.2	17.4
LnGrp LOS	E	E	D	E	D	D	E	D	C	F	D	B
Approach Vol, veh/h		1175			823			2167			1814	
Approach Delay, s/veh		62.4			53.7			40.9			37.2	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	52.1	23.0	32.6	13.8	50.3	23.4	32.2
Change Period (Y+Rc), s	4.6	* 6.5	4.6	5.8	4.6	6.5	4.6	5.8
Max Green Setting (Gmax), s	7.4	* 46	19.4	27.2	10.2	41.7	19.4	27.2
Max Q Clear Time (g_c+I1), s	8.3	38.5	18.3	26.4	9.2	29.3	18.8	17.7
Green Ext Time (p_c), s	0.0	5.5	0.0	0.4	0.0	7.7	0.0	2.3

Intersection Summary	
HCM 6th Ctrl Delay	45.8
HCM 6th LOS	D

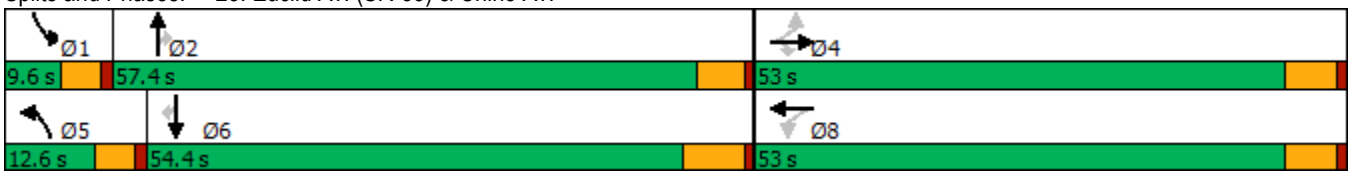
Notes

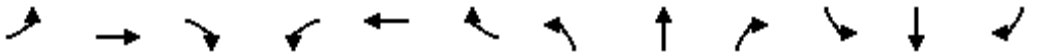
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	134	487	69	136	223	68	1937	276	35	1490	87
Future Volume (vph)	134	487	69	136	223	68	1937	276	35	1490	87
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	28.8	28.8	28.8	33.8	33.8	9.6	24.2	24.2	9.6	31.5	31.5
Total Split (s)	53.0	53.0	53.0	53.0	53.0	12.6	57.4	57.4	9.6	54.4	54.4
Total Split (%)	44.2%	44.2%	44.2%	44.2%	44.2%	10.5%	47.8%	47.8%	8.0%	45.3%	45.3%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	3.6	4.2	4.2	3.6	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	4.6	5.2	5.2	4.6	6.5	6.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max
Act Effct Green (s)	43.2	43.2	43.2	43.2	43.2	7.5	52.8	52.8	5.1	49.2	49.2
Actuated g/C Ratio	0.38	0.38	0.38	0.38	0.38	0.07	0.46	0.46	0.04	0.43	0.43
v/c Ratio	0.41	0.73	0.11	1.03	0.36	0.65	0.87	0.39	0.51	0.72	0.13
Control Delay	30.7	37.6	5.7	120.6	27.0	81.4	34.4	18.7	79.3	31.0	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.7	37.6	5.7	120.6	27.0	81.4	34.4	18.7	79.3	31.0	5.9
LOS	C	D	A	F	C	F	C	B	E	C	A
Approach Delay		33.1			60.7		33.9			30.7	
Approach LOS		C			E		C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 114.4	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 34.8	Intersection LOS: C
Intersection Capacity Utilization 93.4%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 23: Euclid Av. (SR-83) & Chino Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	487	69	136	223	18	68	1937	276	35	1490	87
Future Volume (veh/h)	134	487	69	136	223	18	68	1937	276	35	1490	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	144	524	51	146	240	15	73	2083	226	38	1602	61
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	401	748	634	199	697	44	92	2258	686	51	2135	649
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.05	0.44	0.44	0.03	0.41	0.41
Sat Flow, veh/h	1142	1900	1610	851	1769	111	1714	5187	1577	1714	5187	1577
Grp Volume(v), veh/h	144	524	51	146	0	255	73	2083	226	38	1602	61
Grp Sat Flow(s),veh/h/ln	1142	1900	1610	851	0	1880	1714	1729	1577	1714	1729	1577
Q Serve(g_s), s	12.1	27.7	2.4	19.5	0.0	11.4	5.0	45.4	11.3	2.6	31.5	2.8
Cycle Q Clear(g_c), s	23.5	27.7	2.4	47.2	0.0	11.4	5.0	45.4	11.3	2.6	31.5	2.8
Prop In Lane	1.00		1.00	1.00		0.06	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	401	748	634	199	0	740	92	2258	686	51	2135	649
V/C Ratio(X)	0.36	0.70	0.08	0.74	0.00	0.34	0.79	0.92	0.33	0.74	0.75	0.09
Avail Cap(c_a), veh/h	401	748	634	199	0	740	114	2258	686	71	2135	649
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.7	30.4	22.8	50.7	0.0	25.5	56.1	31.9	22.3	57.7	30.0	21.6
Incr Delay (d2), s/veh	0.5	2.9	0.1	13.2	0.0	0.3	20.6	7.7	1.3	12.5	2.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	12.6	0.9	5.0	0.0	5.0	2.6	18.8	4.1	1.3	12.5	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.3	33.3	22.8	63.9	0.0	25.8	76.7	39.7	23.6	70.2	32.5	21.9
LnGrp LOS	C	C	C	E	A	C	E	D	C	E	C	C
Approach Vol, veh/h		719			401			2382			1701	
Approach Delay, s/veh		32.8			39.7			39.3			33.0	
Approach LOS		C			D			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.2	58.7		53.0	11.0	55.9		53.0				
Change Period (Y+Rc), s	4.6	* 6.5		5.8	4.6	6.5		5.8				
Max Green Setting (Gmax), s	5.0	* 52		47.2	8.0	47.9		47.2				
Max Q Clear Time (g_c+I1), s	4.6	47.4		29.7	7.0	33.5		49.2				
Green Ext Time (p_c), s	0.0	4.2		3.5	0.0	8.6		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		36.3	
HCM 6th LOS		D	

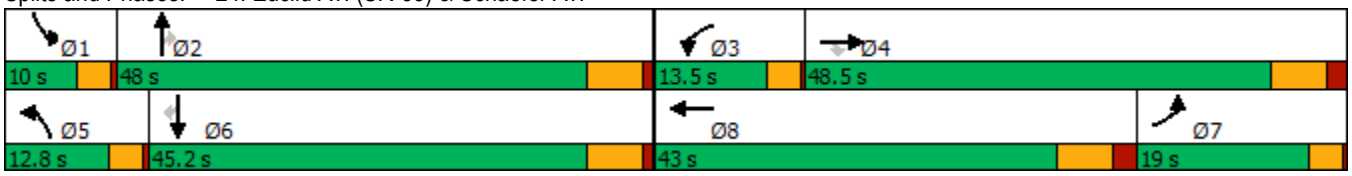
Notes

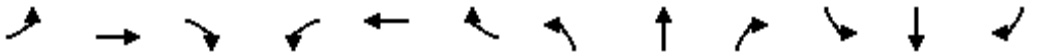
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	487	463	264	95	158	239	1864	100	199	1522	455
Future Volume (vph)	487	463	264	95	158	239	1864	100	199	1522	455
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.5	42.0	42.0	13.5	43.0	8.5	33.0	33.0	8.5	28.0	28.0
Total Split (s)	19.0	48.5	48.5	13.5	43.0	12.8	48.0	48.0	10.0	45.2	45.2
Total Split (%)	15.8%	40.4%	40.4%	11.3%	35.8%	10.7%	40.0%	40.0%	8.3%	37.7%	37.7%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	7.0	7.0	3.5	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	21.9	31.7	31.7	10.0	19.9	9.3	42.2	42.2	6.5	39.4	39.4
Actuated g/C Ratio	0.20	0.29	0.29	0.09	0.18	0.08	0.38	0.38	0.06	0.36	0.36
v/c Ratio	0.75	0.86	0.46	0.62	0.69	0.86	0.95	0.14	1.03	0.83	0.61
Control Delay	50.9	53.2	13.7	68.5	48.5	79.3	46.0	0.8	124.3	38.3	15.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.9	53.2	13.7	68.5	48.5	79.3	46.0	0.8	124.3	38.3	15.8
LOS	D	D	B	E	D	E	D	A	F	D	B
Approach Delay		43.7			54.3		47.5			41.5	
Approach LOS		D			D		D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 110.6	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 44.9	Intersection LOS: D
Intersection Capacity Utilization 92.2%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 24: Euclid Av. (SR-83) & Schaefer Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	487	463	264	95	158	73	239	1864	100	199	1522	455
Future Volume (veh/h)	487	463	264	95	158	73	239	1864	100	199	1522	455
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	492	468	226	96	160	69	241	1883	83	201	1537	430
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	603	526	446	151	190	82	288	2014	625	202	1878	583
Arrive On Green	0.18	0.28	0.28	0.09	0.15	0.15	0.09	0.39	0.39	0.06	0.36	0.36
Sat Flow, veh/h	3326	1900	1610	1714	1259	543	3326	5187	1610	3326	5187	1610
Grp Volume(v), veh/h	492	468	226	96	0	229	241	1883	83	201	1537	430
Grp Sat Flow(s),veh/h/ln	1663	1900	1610	1714	0	1802	1663	1729	1610	1663	1729	1610
Q Serve(g_s), s	15.2	25.3	12.7	5.8	0.0	13.3	7.7	37.4	3.6	6.5	28.8	13.1
Cycle Q Clear(g_c), s	15.2	25.3	12.7	5.8	0.0	13.3	7.7	37.4	3.6	6.5	28.8	13.1
Prop In Lane	1.00		1.00	1.00		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	603	526	446	151	0	271	288	2014	625	202	1878	583
V/C Ratio(X)	0.82	0.89	0.51	0.64	0.00	0.84	0.84	0.94	0.13	1.00	0.82	0.74
Avail Cap(c_a), veh/h	603	735	623	160	0	605	288	2031	631	202	1896	589
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.2	37.2	32.6	47.3	0.0	44.3	48.2	31.5	21.2	50.4	31.0	8.2
Incr Delay (d2), s/veh	7.9	9.1	0.7	5.4	0.0	5.3	17.8	8.8	0.1	62.5	2.9	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	12.5	4.8	2.6	0.0	6.1	3.7	15.7	1.3	4.3	11.4	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.1	46.3	33.3	52.6	0.0	49.6	66.1	40.3	21.3	112.9	33.9	13.0
LnGrp LOS	D	D	C	D	A	D	E	D	C	F	C	B
Approach Vol, veh/h		1186			325			2207			2168	
Approach Delay, s/veh		45.4			50.5			42.4			37.1	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	47.6	12.9	36.7	12.8	44.8	26.5	23.2
Change Period (Y+Rc), s	3.5	6.0	3.5	7.0	3.5	6.0	7.0	* 7
Max Green Setting (Gmax), s	6.5	42.0	10.0	41.5	9.3	39.2	15.5	* 36
Max Q Clear Time (g_c+I1), s	8.5	39.4	7.8	27.3	9.7	30.8	17.2	15.3
Green Ext Time (p_c), s	0.0	2.2	0.0	2.3	0.0	6.1	0.0	0.9

Intersection Summary	
HCM 6th Ctrl Delay	41.5
HCM 6th LOS	D

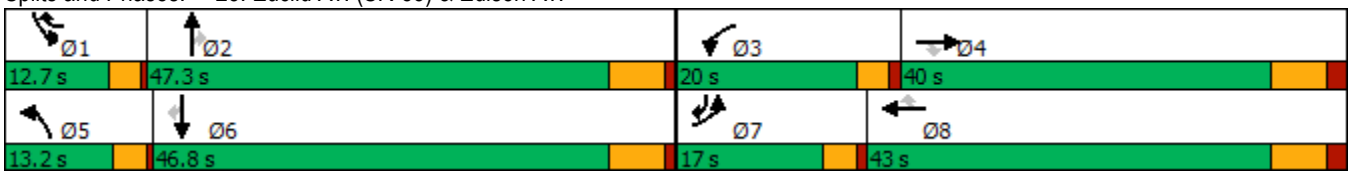
Notes

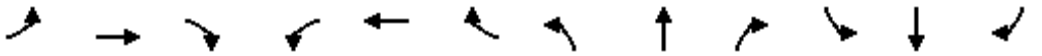
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	334	1195	376	426	723	340	221	1714	277	201	1589	220
Future Volume (vph)	334	1195	376	426	723	340	221	1714	277	201	1589	220
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4		3	8	1	5	2		1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	1	5	2	2	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.0	39.5	39.5	9.0	43.0	8.5	8.5	29.0	29.0	8.5	38.5	9.0
Total Split (s)	17.0	40.0	40.0	20.0	43.0	12.7	13.2	47.3	47.3	12.7	46.8	17.0
Total Split (%)	14.2%	33.3%	33.3%	16.7%	35.8%	10.6%	11.0%	39.4%	39.4%	10.6%	39.0%	14.2%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	3.0	5.0	5.0	3.0	5.0	3.0
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0	0.5	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	7.0	7.0	4.0	7.0	3.5	3.5	6.0	6.0	3.5	6.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	None
Act Effct Green (s)	13.0	32.3	32.3	16.0	35.3	48.0	9.7	41.3	41.3	9.2	40.8	59.8
Actuated g/C Ratio	0.11	0.27	0.27	0.13	0.30	0.40	0.08	0.35	0.35	0.08	0.34	0.50
v/c Ratio	1.00	0.81	0.71	1.04	0.68	0.53	0.89	0.91	0.47	0.85	0.86	0.28
Control Delay	102.1	45.7	30.7	103.3	40.5	23.0	87.7	45.8	22.0	84.1	42.1	13.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	102.1	45.7	30.7	103.3	40.5	23.0	87.7	45.8	22.0	84.1	42.1	13.0
LOS	F	D	C	F	D	C	F	D	C	F	D	B
Approach Delay		52.7			54.5			47.0			43.2	
Approach LOS		D			D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 119.3	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.04	
Intersection Signal Delay: 48.9	Intersection LOS: D
Intersection Capacity Utilization 93.7%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 25: Euclid Av. (SR-83) & Edison Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	334	1195	376	426	723	340	221	1714	277	201	1589	220
Future Volume (veh/h)	334	1195	376	426	723	340	221	1714	277	201	1589	220
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1900	1900	1700	1900	1900	1700	1900	1900	1700	1900	1900
Adj Flow Rate, veh/h	352	1258	241	448	761	137	233	1804	141	212	1673	179
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	358	1485	419	440	1087	581	267	2001	564	253	1977	736
Arrive On Green	0.11	0.33	0.26	0.14	0.36	0.29	0.08	0.53	0.35	0.08	0.52	0.35
Sat Flow, veh/h	3238	5700	1610	3238	3800	1590	3238	5700	1607	3238	5700	1610
Grp Volume(v), veh/h	352	1258	241	448	761	137	233	1804	141	212	1673	179
Grp Sat Flow(s),veh/h/ln	1619	1900	1610	1619	1900	1590	1619	1900	1607	1619	1900	1610
Q Serve(g_s), s	12.8	24.2	15.3	16.0	20.2	7.1	8.4	33.6	7.3	7.6	29.6	8.0
Cycle Q Clear(g_c), s	12.8	24.2	15.3	16.0	20.2	7.1	8.4	33.6	7.3	7.6	29.6	8.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	358	1485	419	440	1087	581	267	2001	564	253	1977	736
V/C Ratio(X)	0.98	0.85	0.57	1.02	0.70	0.24	0.87	0.90	0.25	0.84	0.85	0.24
Avail Cap(c_a), veh/h	358	1599	452	440	1163	612	267	2001	564	253	1977	736
HCM Platoon Ratio	1.00	1.25	1.00	1.00	1.25	1.00	1.00	1.50	1.00	1.00	1.50	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.2	37.5	37.8	50.8	33.5	26.0	53.4	26.0	27.2	53.5	25.5	19.5
Incr Delay (d2), s/veh	43.0	4.2	1.5	47.3	1.7	0.2	24.7	7.1	1.1	20.1	4.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	10.8	6.0	9.2	8.7	2.6	4.2	12.1	2.9	3.7	10.5	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	95.2	41.7	39.4	98.2	35.2	26.2	78.1	33.1	28.2	73.6	30.2	20.3
LnGrp LOS	F	D	D	F	D	C	E	C	C	E	C	C
Approach Vol, veh/h		1851			1346			2178			2064	
Approach Delay, s/veh		51.6			55.3			37.6			33.8	
Approach LOS		D			E			D			C	

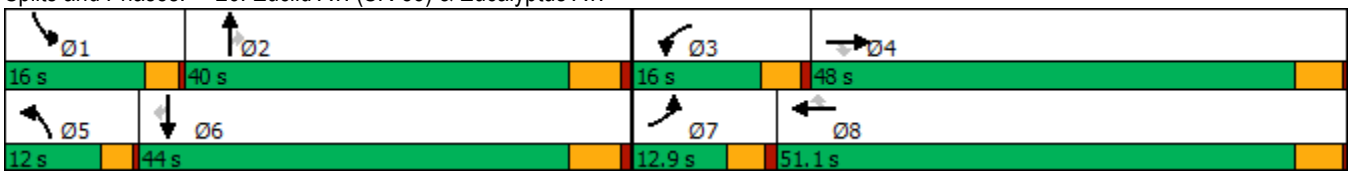
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	47.3	20.0	37.7	13.2	46.8	17.0	40.7
Change Period (Y+Rc), s	3.5	6.0	4.0	7.0	3.5	6.0	4.0	7.0
Max Green Setting (Gmax), s	9.2	41.3	16.0	33.0	9.7	40.8	13.0	36.0
Max Q Clear Time (g_c+I1), s	9.6	35.6	18.0	26.2	10.4	31.6	14.8	22.2
Green Ext Time (p_c), s	0.0	4.6	0.0	4.5	0.0	6.6	0.0	4.4

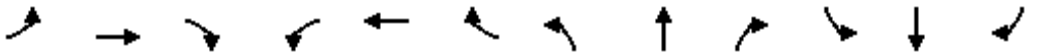
Intersection Summary	
HCM 6th Ctrl Delay	43.2
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	202	264	413	157	237	144	1709	383	260	1770	78
Future Volume (vph)	47	202	264	413	157	237	144	1709	383	260	1770	78
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	46.8	46.8	9.5	46.8	46.8	8.5	30.7	30.7	8.5	37.7	37.7
Total Split (s)	12.9	48.0	48.0	16.0	51.1	51.1	12.0	40.0	40.0	16.0	44.0	44.0
Total Split (%)	10.8%	40.0%	40.0%	13.3%	42.6%	42.6%	10.0%	33.3%	33.3%	13.3%	36.7%	36.7%
Yellow Time (s)	3.5	4.3	4.3	3.5	4.3	4.3	3.0	4.7	4.7	3.0	4.7	4.7
All-Red Time (s)	1.0	0.5	0.5	1.0	0.5	0.5	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.8	4.8	4.5	4.8	4.8	3.5	5.7	5.7	3.5	5.7	5.7
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	7.5	18.9	18.9	11.6	27.7	27.7	8.6	34.7	34.7	12.6	38.8	38.8
Actuated g/C Ratio	0.08	0.20	0.20	0.12	0.29	0.29	0.09	0.36	0.36	0.13	0.40	0.40
v/c Ratio	0.39	0.59	0.62	1.13	0.31	0.40	1.03	1.00	0.63	1.27	0.92	0.12
Control Delay	54.3	41.0	18.8	123.9	29.5	5.3	128.3	52.5	24.8	187.8	37.6	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.3	41.0	18.8	123.9	29.5	5.3	128.3	52.5	24.8	187.8	37.6	5.7
LOS	D	D	B	F	C	A	F	D	C	F	D	A
Approach Delay		30.8			70.7			52.7			54.9	
Approach LOS		C			E			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 96.6	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.27	
Intersection Signal Delay: 54.1	Intersection LOS: D
Intersection Capacity Utilization 87.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 26: Euclid Av. (SR-83) & Eucalyptus Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	202	264	413	157	237	144	1709	383	260	1770	78
Future Volume (veh/h)	47	202	264	413	157	237	144	1709	383	260	1770	78
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	51	220	175	449	171	255	157	1858	415	283	1924	73
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	69	283	240	424	449	381	162	1969	611	238	2199	668
Arrive On Green	0.04	0.15	0.15	0.13	0.24	0.24	0.09	0.38	0.38	0.14	0.42	0.42
Sat Flow, veh/h	1714	1900	1610	3326	1900	1610	1714	5187	1610	1714	5187	1577
Grp Volume(v), veh/h	51	220	175	449	171	255	157	1858	415	283	1924	73
Grp Sat Flow(s),veh/h/ln	1714	1900	1610	1663	1900	1610	1714	1729	1610	1714	1729	1577
Q Serve(g_s), s	2.7	10.0	9.4	11.5	6.8	12.9	8.2	31.2	19.4	12.5	30.6	2.5
Cycle Q Clear(g_c), s	2.7	10.0	9.4	11.5	6.8	12.9	8.2	31.2	19.4	12.5	30.6	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	69	283	240	424	449	381	162	1969	611	238	2199	668
V/C Ratio(X)	0.74	0.78	0.73	1.06	0.38	0.67	0.97	0.94	0.68	1.19	0.88	0.11
Avail Cap(c_a), veh/h	160	911	772	424	976	827	162	1974	613	238	2204	670
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.8	36.9	36.6	39.3	28.9	31.2	40.7	27.0	23.4	38.8	23.8	15.7
Incr Delay (d2), s/veh	14.6	3.5	3.2	59.8	0.4	1.5	61.8	10.0	3.0	119.5	4.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	4.7	3.7	8.0	3.0	4.9	6.0	13.0	7.2	12.7	11.5	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.4	40.4	39.8	99.1	29.3	32.7	102.5	37.0	26.4	158.3	28.0	15.8
LnGrp LOS	E	D	D	F	C	C	F	D	C	F	C	B
Approach Vol, veh/h		446			875			2430			2280	
Approach Delay, s/veh		42.1			66.1			39.4			43.8	
Approach LOS		D			E			D			D	

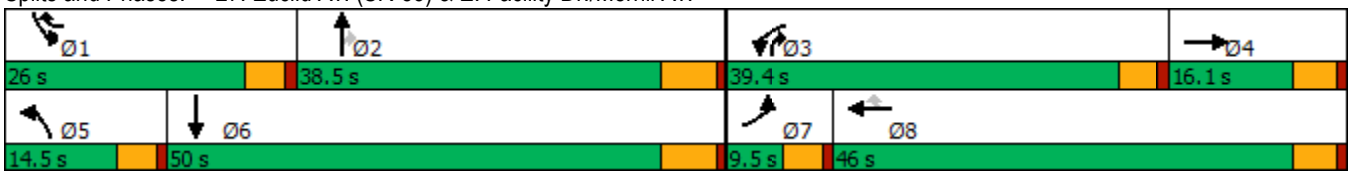
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	39.9	16.0	18.2	12.0	43.9	8.1	26.1
Change Period (Y+Rc), s	3.5	5.7	4.5	4.8	3.5	5.7	4.5	4.8
Max Green Setting (Gmax), s	12.5	34.3	11.5	43.2	8.5	38.3	8.4	46.3
Max Q Clear Time (g_c+I1), s	14.5	33.2	13.5	12.0	10.2	32.6	4.7	14.9
Green Ext Time (p_c), s	0.0	1.0	0.0	1.4	0.0	4.7	0.0	1.3

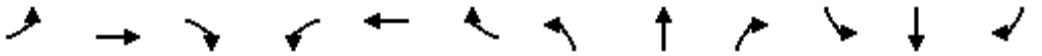
Intersection Summary	
HCM 6th Ctrl Delay	45.2
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	14	37	631	3	421	5	1509	797	392	1621
Future Volume (vph)	14	37	631	3	421	5	1509	797	392	1621
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	3	8	1	5	2	3	1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	1	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	15.0	10.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	9.5	10.0	9.5	46.0	14.5	14.5	28.0	9.5	14.5	28.0
Total Split (s)	9.5	16.1	39.4	46.0	26.0	14.5	38.5	39.4	26.0	50.0
Total Split (%)	7.9%	13.4%	32.8%	38.3%	21.7%	12.1%	32.1%	32.8%	21.7%	41.7%
Yellow Time (s)	3.5	4.0	3.5	4.0	3.5	3.5	5.0	3.5	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	5.0	4.5	5.0	4.5	4.5	6.0	4.5	4.5	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	None	Min
Act Effct Green (s)	5.1	7.4	29.4	37.2	64.0	10.1	32.9	68.3	21.8	56.5
Actuated g/C Ratio	0.05	0.07	0.27	0.34	0.59	0.09	0.30	0.63	0.20	0.52
v/c Ratio	0.19	0.41	0.77	0.00	0.47	0.03	1.05	0.78	1.25	0.66
Control Delay	60.1	51.0	43.5	24.0	11.8	50.4	75.7	16.2	173.7	23.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.1	51.0	43.5	24.0	11.8	50.4	75.7	16.2	173.7	23.7
LOS	E	D	D	C	B	D	E	B	F	C
Approach Delay		52.9		30.8			55.1			52.9
Approach LOS		D		C			E			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 109.2	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.25	
Intersection Signal Delay: 49.5	Intersection LOS: D
Intersection Capacity Utilization 90.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 27: Euclid Av. (SR-83) & E. Facility Dr./Merrill Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	37	15	631	3	421	5	1509	797	392	1621	1
Future Volume (veh/h)	14	37	15	631	3	421	5	1509	797	392	1621	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	15	40	15	686	3	448	5	1640	802	426	1762	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	29	65	24	789	513	768	22	1624	886	355	2632	0
Arrive On Green	0.02	0.05	0.05	0.24	0.27	0.27	0.01	0.31	0.31	0.21	0.51	0.00
Sat Flow, veh/h	1714	1317	494	3326	1900	1610	1714	5187	1610	1714	5358	0
Grp Volume(v), veh/h	15	0	55	686	3	448	5	1640	802	426	1762	0
Grp Sat Flow(s),veh/h/ln	1714	0	1811	1663	1900	1610	1714	1729	1610	1714	1729	0
Q Serve(g_s), s	0.9	0.0	3.1	20.6	0.1	20.9	0.3	32.5	32.5	21.5	26.3	0.0
Cycle Q Clear(g_c), s	0.9	0.0	3.1	20.6	0.1	20.9	0.3	32.5	32.5	21.5	26.3	0.0
Prop In Lane	1.00		0.27	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	29	0	90	789	513	768	22	1624	886	355	2632	0
V/C Ratio(X)	0.52	0.00	0.61	0.87	0.01	0.58	0.23	1.01	0.90	1.20	0.67	0.00
Avail Cap(c_a), veh/h	83	0	194	1118	751	970	165	1624	886	355	2632	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	50.6	0.0	48.3	38.0	27.7	19.7	50.7	35.6	20.9	41.1	19.1	0.0
Incr Delay (d2), s/veh	13.5	0.0	2.5	5.5	0.0	0.3	1.9	24.7	12.7	113.8	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	1.5	8.5	0.1	7.1	0.1	16.2	17.8	19.7	9.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.1	0.0	50.9	43.5	27.7	19.9	52.6	60.3	33.5	154.9	19.7	0.0
LnGrp LOS	E	A	D	D	C	B	D	F	C	F	B	A
Approach Vol, veh/h		70			1137			2447			2188	
Approach Delay, s/veh		53.7			34.1			51.5			46.1	
Approach LOS		D			C			D			D	

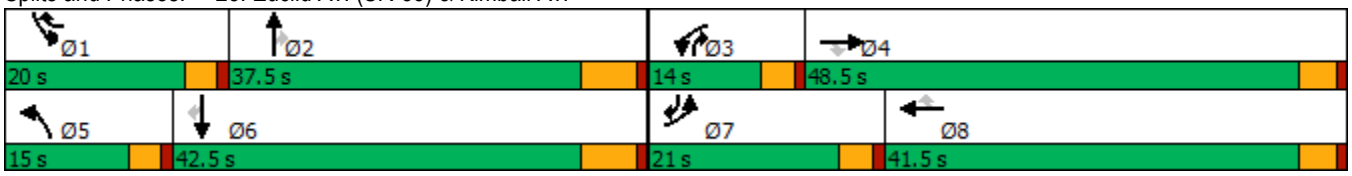
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	38.5	29.1	10.1	5.8	58.7	6.3	33.0
Change Period (Y+Rc), s	4.5	6.0	4.5	5.0	4.5	6.0	4.5	5.0
Max Green Setting (Gmax), s	21.5	32.5	34.9	11.1	10.0	44.0	5.0	41.0
Max Q Clear Time (g_c+I1), s	23.5	34.5	22.6	5.1	2.3	28.3	2.9	22.9
Green Ext Time (p_c), s	0.0	0.0	2.1	0.1	0.0	9.9	0.0	0.7

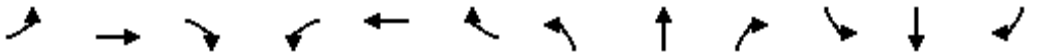
Intersection Summary	
HCM 6th Ctrl Delay	46.1
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	591	975	206	87	435	293	147	1260	113	541	1391	419
Future Volume (vph)	591	975	206	87	435	293	147	1260	113	541	1391	419
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4		3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	14.0	41.5	41.5	14.0	41.5	9.0	14.0	36.0	14.0	9.0	33.0	14.0
Total Split (s)	21.0	48.5	48.5	14.0	41.5	20.0	15.0	37.5	14.0	20.0	42.5	21.0
Total Split (%)	17.5%	40.4%	40.4%	11.7%	34.6%	16.7%	12.5%	31.3%	11.7%	16.7%	35.4%	17.5%
Yellow Time (s)	3.0	3.5	3.5	3.0	3.5	3.0	3.0	5.0	3.0	3.0	5.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.5	4.5	4.0	4.5	4.0	4.0	6.0	4.0	4.0	6.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	None	Min	None
Act Effct Green (s)	17.0	38.6	38.6	10.0	31.6	52.1	11.0	31.3	47.3	16.0	36.3	55.4
Actuated g/C Ratio	0.15	0.34	0.34	0.09	0.28	0.46	0.10	0.27	0.41	0.14	0.32	0.48
v/c Ratio	1.17	0.83	0.33	0.29	0.45	0.38	0.88	0.92	0.16	1.14	0.87	0.51
Control Delay	138.5	41.4	8.0	53.3	35.6	14.6	95.1	52.0	4.1	129.4	44.5	14.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	138.5	41.4	8.0	53.3	35.6	14.6	95.1	52.0	4.1	129.4	44.5	14.0
LOS	F	D	A	D	D	B	F	D	A	F	D	B
Approach Delay		69.9			29.9			52.6			58.6	
Approach LOS		E			C			D			E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 114.5	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.17	
Intersection Signal Delay: 56.7	Intersection LOS: E
Intersection Capacity Utilization 90.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 28: Euclid Av. (SR-83) & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	591	975	206	87	435	293	147	1260	113	541	1391	419
Future Volume (veh/h)	591	975	206	87	435	293	147	1260	113	541	1391	419
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	609	1005	209	90	448	264	152	1299	101	558	1434	334
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	537	1191	531	296	944	653	179	1429	579	505	1662	762
Arrive On Green	0.15	0.33	0.33	0.08	0.26	0.26	0.12	0.34	0.34	0.18	0.40	0.40
Sat Flow, veh/h	3510	3610	1609	3510	3610	1610	1810	5187	1610	3510	5187	1609
Grp Volume(v), veh/h	609	1005	209	90	448	264	152	1299	101	558	1434	334
Grp Sat Flow(s),veh/h/ln	1755	1805	1609	1755	1805	1610	1810	1729	1610	1755	1729	1609
Q Serve(g_s), s	17.0	28.7	11.1	2.7	11.6	13.0	9.1	26.6	4.4	16.0	28.2	14.5
Cycle Q Clear(g_c), s	17.0	28.7	11.1	2.7	11.6	13.0	9.1	26.6	4.4	16.0	28.2	14.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	537	1191	531	296	944	653	179	1429	579	505	1662	762
V/C Ratio(X)	1.13	0.84	0.39	0.30	0.47	0.40	0.85	0.91	0.17	1.10	0.86	0.44
Avail Cap(c_a), veh/h	537	1428	637	316	1201	767	179	1469	592	505	1702	774
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.25	1.25	1.25	1.25	1.25	1.25
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.1	34.6	28.7	47.8	34.6	23.5	47.9	35.1	21.9	45.6	31.1	17.0
Incr Delay (d2), s/veh	81.6	4.1	0.5	0.2	0.1	0.2	28.7	8.5	0.1	71.8	4.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.2	12.6	4.2	1.2	4.9	4.7	5.3	10.7	1.6	11.3	10.6	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	128.7	38.7	29.2	48.1	34.8	23.7	76.7	43.7	22.0	117.4	35.9	17.4
LnGrp LOS	F	D	C	D	C	C	E	D	C	F	D	B
Approach Vol, veh/h		1823			802			1552			2326	
Approach Delay, s/veh		67.7			32.6			45.5			52.8	
Approach LOS		E			C			D			D	

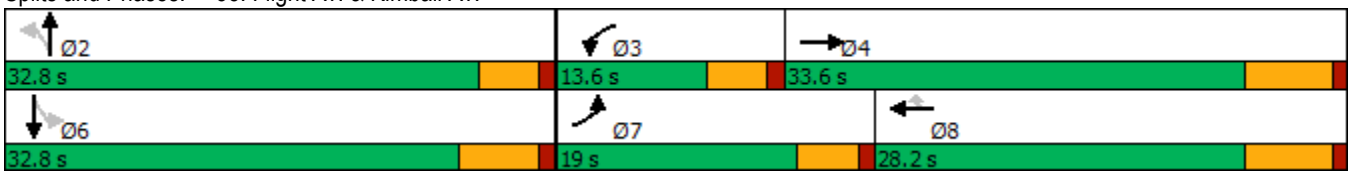
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	36.6	13.4	41.2	15.0	41.6	21.0	33.6
Change Period (Y+Rc), s	4.0	6.0	4.0	4.5	4.0	6.0	4.0	4.5
Max Green Setting (Gmax), s	16.0	31.5	10.0	44.0	11.0	36.5	17.0	37.0
Max Q Clear Time (g_c+I1), s	18.0	28.6	4.7	30.7	11.1	30.2	19.0	15.0
Green Ext Time (p_c), s	0.0	2.0	0.0	5.9	0.0	4.6	0.0	2.1

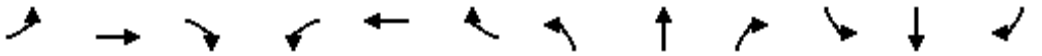
Intersection Summary	
HCM 6th Ctrl Delay	52.7
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	279	732	67	614	221	10	14	193	17
Future Volume (vph)	279	732	67	614	221	10	14	193	17
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA
Protected Phases	7	4	3	8			2		6
Permitted Phases					8	2		6	
Detector Phase	7	4	3	8	8	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.2	9.6	28.2	28.2	31.6	31.6	32.8	32.8
Total Split (s)	19.0	33.6	13.6	28.2	28.2	32.8	32.8	32.8	32.8
Total Split (%)	23.8%	42.0%	17.0%	35.3%	35.3%	41.0%	41.0%	41.0%	41.0%
Yellow Time (s)	3.6	5.2	3.6	5.2	5.2	3.6	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	6.2	6.2		4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	Min	Min	Min	Min

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 64.7
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 38: Flight Av. & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	279	732	42	67	614	221	10	14	23	193	17	225
Future Volume (veh/h)	279	732	42	67	614	221	10	14	23	193	17	225
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	288	755	43	69	633	228	10	14	24	199	18	232
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	340	1374	78	101	927	413	114	145	180	405	29	372
Arrive On Green	0.20	0.40	0.40	0.06	0.26	0.26	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1714	3472	198	1714	3610	1610	144	587	731	1318	117	1511
Grp Volume(v), veh/h	288	392	406	69	633	228	48	0	0	199	0	250
Grp Sat Flow(s),veh/h/ln	1714	1805	1864	1714	1805	1610	1462	0	0	1318	0	1628
Q Serve(g_s), s	9.0	9.3	9.3	2.2	8.8	6.8	0.0	0.0	0.0	2.3	0.0	7.6
Cycle Q Clear(g_c), s	9.0	9.3	9.3	2.2	8.8	6.8	7.6	0.0	0.0	9.9	0.0	7.6
Prop In Lane	1.00		0.11	1.00		1.00	0.21		0.50	1.00		0.93
Lane Grp Cap(c), veh/h	340	715	738	101	927	413	439	0	0	405	0	401
V/C Ratio(X)	0.85	0.55	0.55	0.68	0.68	0.55	0.11	0.00	0.00	0.49	0.00	0.62
Avail Cap(c_a), veh/h	444	890	919	278	1429	637	843	0	0	721	0	791
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.5	13.0	13.0	25.6	18.6	17.9	16.2	0.0	0.0	19.8	0.0	18.6
Incr Delay (d2), s/veh	9.2	0.7	0.6	3.0	0.9	1.2	0.1	0.0	0.0	0.9	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	2.9	3.0	0.9	3.1	2.2	0.5	0.0	0.0	2.1	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.7	13.6	13.6	28.7	19.5	19.0	16.4	0.0	0.0	20.7	0.0	20.2
LnGrp LOS	C	B	B	C	B	B	B	A	A	C	A	C
Approach Vol, veh/h		1086			930			48			449	
Approach Delay, s/veh		18.1			20.1			16.4			20.4	
Approach LOS		B			C			B			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		19.5	7.9	28.2		19.5	15.6	20.5				
Change Period (Y+Rc), s		* 5.8	4.6	6.2		5.8	4.6	6.2				
Max Green Setting (Gmax), s		* 28	9.0	27.4		27.0	14.4	22.0				
Max Q Clear Time (g_c+I1), s		9.6	4.2	11.3		11.9	11.0	10.8				
Green Ext Time (p_c), s		0.2	0.0	3.9		1.8	0.1	3.5				

Intersection Summary		
HCM 6th Ctrl Delay		19.2
HCM 6th LOS		B

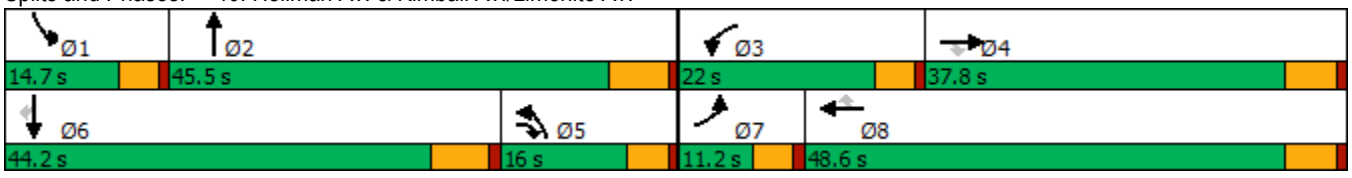
Notes

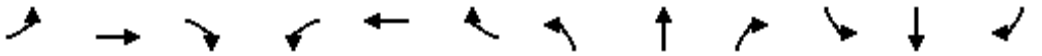
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	30	925	258	483	793	62	326	93	123	98	148
Future Volume (vph)	30	925	258	483	793	62	326	93	123	98	148
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	5	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	37.8	9.6	9.6	37.8	37.8	9.6	43.2	9.6	43.2	43.2
Total Split (s)	11.2	37.8	16.0	22.0	48.6	48.6	16.0	45.5	14.7	44.2	44.2
Total Split (%)	9.3%	31.5%	13.3%	18.3%	40.5%	40.5%	13.3%	37.9%	12.3%	36.8%	36.8%
Yellow Time (s)	3.6	4.8	3.6	3.6	4.8	4.8	3.6	5.2	3.6	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	4.6	5.8	5.8	4.6	6.2	4.6	6.2	6.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	None	Max	Max	None	None	None	None	None
Act Effct Green (s)	6.0	32.3	46.8	17.6	48.1	48.1	13.3	17.9	10.1	14.6	14.6
Actuated g/C Ratio	0.06	0.33	0.47	0.18	0.48	0.48	0.13	0.18	0.10	0.15	0.15
v/c Ratio	0.31	0.83	0.31	0.92	0.48	0.07	0.81	0.86dr	0.75	0.19	0.41
Control Delay	56.1	39.4	3.0	64.1	21.0	0.2	59.1	21.9	71.0	36.8	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.1	39.4	3.0	64.1	21.0	0.2	59.1	21.9	71.0	36.8	8.0
LOS	E	D	A	E	C	A	E	C	E	D	A
Approach Delay		32.1			35.6			36.1		36.6	
Approach LOS		C			D			D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 99.2	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 34.7	Intersection LOS: C
Intersection Capacity Utilization 82.3%	ICU Level of Service E
Analysis Period (min) 15	
dr Defacto Right Lane. Recode with 1 though lane as a right lane.	

Splits and Phases: 40: Hellman Av. & Kimball Av./Limonite Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	925	258	483	793	62	326	93	430	123	98	148
Future Volume (veh/h)	30	925	258	483	793	62	326	93	430	123	98	148
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1700	1900	1900	1700	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	32	974	272	508	835	65	343	98	348	129	103	156
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	49	1083	826	513	1569	700	669	446	398	156	397	177
Arrive On Green	0.03	0.30	0.30	0.16	0.43	0.43	0.21	0.25	0.25	0.09	0.11	0.11
Sat Flow, veh/h	1714	3610	1610	3141	3610	1610	3141	1805	1610	1714	3610	1610
Grp Volume(v), veh/h	32	974	272	508	835	65	343	98	348	129	103	156
Grp Sat Flow(s),veh/h/ln	1714	1805	1610	1570	1805	1610	1570	1805	1610	1714	1805	1610
Q Serve(g_s), s	2.0	27.6	4.5	17.2	18.1	2.5	10.3	4.6	22.1	7.9	2.8	8.7
Cycle Q Clear(g_c), s	2.0	27.6	4.5	17.2	18.1	2.5	10.3	4.6	22.1	7.9	2.8	8.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	49	1083	826	513	1569	700	669	446	398	156	397	177
V/C Ratio(X)	0.65	0.90	0.33	0.99	0.53	0.09	0.51	0.22	0.87	0.83	0.26	0.88
Avail Cap(c_a), veh/h	106	1083	826	513	1569	700	669	665	593	162	1287	574
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.2	35.8	4.5	44.5	22.2	17.8	37.1	32.0	38.6	47.7	43.5	34.1
Incr Delay (d2), s/veh	5.3	11.7	1.1	37.3	1.3	0.3	0.3	0.2	9.5	26.1	0.3	13.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	13.2	2.0	9.1	7.4	0.9	3.8	1.9	9.3	4.4	1.2	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.5	47.5	5.6	81.8	23.5	18.0	37.4	32.2	48.0	73.7	43.8	47.3
LnGrp LOS	E	D	A	F	C	B	D	C	D	E	D	D
Approach Vol, veh/h		1278			1408			789			388	
Approach Delay, s/veh		38.8			44.3			41.4			55.2	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.3	32.5	22.0	37.8	28.9	17.9	7.7	52.1
Change Period (Y+Rc), s	4.6	6.2	4.6	5.8	6.2	* 6.2	4.6	5.8
Max Green Setting (Gmax), s	10.1	39.3	17.4	32.0	11.4	* 38	6.6	42.8
Max Q Clear Time (g_c+I1), s	9.9	24.1	19.2	29.6	12.3	10.7	4.0	20.1
Green Ext Time (p_c), s	0.0	2.2	0.0	1.6	0.0	1.0	0.0	5.7

Intersection Summary	
HCM 6th Ctrl Delay	43.0
HCM 6th LOS	D

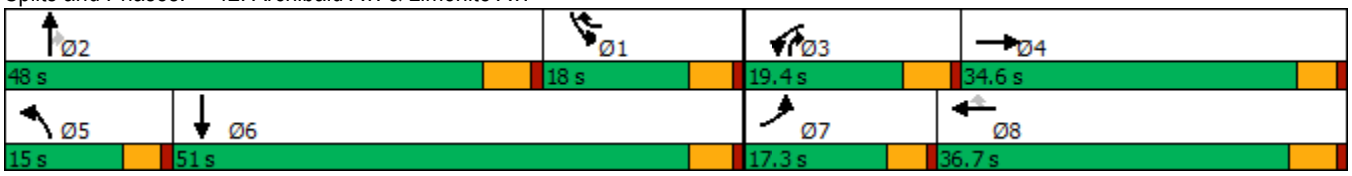
Notes

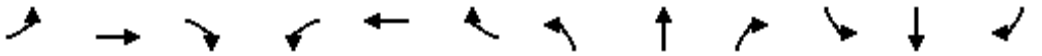
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	204	746	469	728	686	131	1155	482	655	1480
Future Volume (vph)	204	746	469	728	686	131	1155	482	655	1480
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	3	8	1	5	2	3	1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	1	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	6.0	6.0	6.0	6.0	5.0	6.0	6.0	6.0	6.0
Minimum Split (s)	9.6	34.6	11.3	36.3	11.0	9.5	46.3	11.3	11.0	43.0
Total Split (s)	17.3	34.6	19.4	36.7	18.0	15.0	48.0	19.4	18.0	51.0
Total Split (%)	14.4%	28.8%	16.2%	30.6%	15.0%	12.5%	40.0%	16.2%	15.0%	42.5%
Yellow Time (s)	3.6	3.6	4.3	4.3	4.0	3.5	4.3	4.3	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.3	5.3	5.0	4.5	5.3	5.3	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Max	None	None	None	Max	Max
Act Effct Green (s)	11.5	29.9	14.1	32.5	53.7	10.3	34.7	48.8	20.8	46.0
Actuated g/C Ratio	0.10	0.25	0.12	0.27	0.45	0.09	0.29	0.41	0.17	0.38
v/c Ratio	0.60	0.95	1.13	0.72	0.90	0.87	0.71	0.71	1.06	0.83
Control Delay	59.4	62.9	130.5	44.4	35.9	98.8	40.4	19.2	101.4	36.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.4	62.9	130.5	44.4	35.9	98.8	40.4	19.2	101.4	36.6
LOS	E	E	F	D	D	F	D	B	F	D
Approach Delay		62.2		62.8			39.0			54.1
Approach LOS		E		E			D			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 119.7	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.13	
Intersection Signal Delay: 53.9	Intersection LOS: D
Intersection Capacity Utilization 96.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 42: Archibald Av. & Limonite Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	204	746	127	469	728	686	131	1155	482	655	1480	279
Future Volume (veh/h)	204	746	127	469	728	686	131	1155	482	655	1480	279
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	208	761	66	479	743	650	134	1179	471	668	1510	141
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	271	831	72	427	1101	749	159	1656	652	636	1977	184
Arrive On Green	0.07	0.24	0.24	0.12	0.29	0.29	0.09	0.29	0.29	0.18	0.38	0.38
Sat Flow, veh/h	3619	3447	299	3619	3800	1610	1810	5700	1590	3619	5135	479
Grp Volume(v), veh/h	208	419	408	479	743	650	134	1179	471	668	1117	534
Grp Sat Flow(s),veh/h/ln	1810	1900	1846	1810	1900	1610	1810	1900	1590	1810	1900	1814
Q Serve(g_s), s	6.7	25.7	25.7	14.1	20.6	15.3	8.7	22.1	14.4	21.0	30.6	30.6
Cycle Q Clear(g_c), s	6.7	25.7	25.7	14.1	20.6	15.3	8.7	22.1	14.4	21.0	30.6	30.6
Prop In Lane	1.00		0.16	1.00		1.00	1.00		1.00	1.00		0.26
Lane Grp Cap(c), veh/h	271	458	445	427	1101	749	159	1656	652	636	1463	698
V/C Ratio(X)	0.77	0.92	0.92	1.12	0.67	0.87	0.84	0.71	0.72	1.05	0.76	0.76
Avail Cap(c_a), veh/h	385	477	464	427	1101	749	159	2037	758	636	1463	698
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.2	44.2	44.2	52.7	37.5	14.2	53.7	37.9	10.9	49.3	32.0	32.0
Incr Delay (d2), s/veh	5.8	22.0	22.5	81.0	1.3	10.1	30.2	1.0	3.1	49.8	3.8	7.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	14.4	14.1	11.0	9.3	10.1	5.2	9.9	4.4	13.4	13.8	13.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.0	66.1	66.7	133.7	38.8	24.4	83.9	38.9	14.0	99.0	35.8	39.8
LnGrp LOS	E	E	E	F	D	C	F	D	B	F	D	D
Approach Vol, veh/h		1035			1872			1784			2319	
Approach Delay, s/veh		65.1			58.1			35.7			55.0	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	40.0	19.4	34.1	15.0	51.0	13.6	39.9
Change Period (Y+Rc), s	5.0	5.3	5.3	* 5.3	4.5	5.0	4.6	5.3
Max Green Setting (Gmax), s	13.0	42.7	14.1	* 30	10.5	46.0	12.7	31.4
Max Q Clear Time (g_c+I1), s	23.0	24.1	16.1	27.7	10.7	32.6	8.7	22.6
Green Ext Time (p_c), s	0.0	10.6	0.0	1.1	0.0	5.6	0.2	2.3

Intersection Summary	
HCM 6th Ctrl Delay	52.4
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 8.10:

HORIZON YEAR (2040) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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Lane Group	EBT	WBL	WBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	710	63	265	478	1
Future Volume (vph)	710	63	265	478	1
Turn Type	NA	Prot	NA	Split	NA
Protected Phases	2	1	6	4	4
Permitted Phases					
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	8.0	5.0	5.0	5.0	5.0
Minimum Split (s)	25.0	9.6	25.0	37.0	37.0
Total Split (s)	31.0	12.0	43.0	37.0	37.0
Total Split (%)	38.8%	15.0%	53.8%	46.3%	46.3%
Yellow Time (s)	4.5	3.6	4.5	4.5	4.5
All-Red Time (s)	0.5	1.0	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.6	5.0	5.0	5.0
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	None	None	C-Max	Max	Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 6:WBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 2: SR-71 SB Ramps & Pine Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	710	36	63	265	0	0	0	0	478	1	199
Future Volume (veh/h)	0	710	36	63	265	0	0	0	0	478	1	199
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	826	36	73	308	0				349	290	141
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86				0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1286	56	95	1715	0				724	483	235
Arrive On Green	0.00	0.36	0.36	0.02	0.16	0.00				0.40	0.40	0.40
Sat Flow, veh/h	0	3619	154	1810	3705	0				1810	1207	587
Grp Volume(v), veh/h	0	423	439	73	308	0				349	0	431
Grp Sat Flow(s),veh/h/ln	0	1805	1872	1810	1805	0				1810	0	1794
Q Serve(g_s), s	0.0	15.6	15.6	3.2	5.9	0.0				11.5	0.0	15.2
Cycle Q Clear(g_c), s	0.0	15.6	15.6	3.2	5.9	0.0				11.5	0.0	15.2
Prop In Lane	0.00		0.08	1.00		0.00				1.00		0.33
Lane Grp Cap(c), veh/h	0	659	683	95	1715	0				724	0	718
V/C Ratio(X)	0.00	0.64	0.64	0.77	0.18	0.00				0.48	0.00	0.60
Avail Cap(c_a), veh/h	0	659	683	167	1715	0				724	0	718
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	21.1	21.1	38.8	20.2	0.0				17.8	0.0	19.0
Incr Delay (d2), s/veh	0.0	2.1	2.1	12.1	0.2	0.0				2.3	0.0	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.3	6.6	1.7	2.4	0.0				5.0	0.0	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	23.2	23.1	50.9	20.4	0.0				20.1	0.0	22.6
LnGrp LOS	A	C	C	D	C	A				C	A	C
Approach Vol, veh/h		862			381						780	
Approach Delay, s/veh		23.2			26.3						21.5	
Approach LOS		C			C						C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	8.8	34.2		37.0		43.0
Change Period (Y+Rc), s	4.6	5.0		5.0		5.0
Max Green Setting (Gmax), s	7.4	26.0		32.0		38.0
Max Q Clear Time (g_c+I1), s	5.2	17.6		17.2		7.9
Green Ext Time (p_c), s	0.0	3.3		3.5		1.9

Intersection Summary		
HCM 6th Ctrl Delay		23.1
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

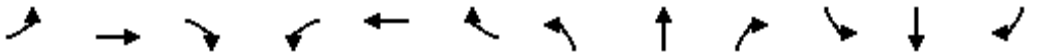
Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	495	692	262	934	6	116
Future Volume (vph)	495	692	262	934	6	116
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	5	2	6		8	
Permitted Phases				6		8
Detector Phase	5	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	8.0	8.0	8.0	5.0	5.0
Minimum Split (s)	9.0	22.5	22.0	22.0	10.0	10.0
Total Split (s)	18.0	70.0	52.0	52.0	10.0	10.0
Total Split (%)	22.5%	87.5%	65.0%	65.0%	12.5%	12.5%
Yellow Time (s)	3.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	0.5	1.0	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.5	5.0	5.0	5.0	5.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Min	Min

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 5: SR-71 NB Ramps & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	495	692	0	0	262	934	67	6	116	0	0	0
Future Volume (veh/h)	495	692	0	0	262	934	67	6	116	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	576	752	0	0	285	1015	78	38	106			
Peak Hour Factor	0.86	0.92	0.86	0.92	0.92	0.92	0.86	0.86	0.92			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	614	1936	0	0	2865	1278	77	38	101			
Arrive On Green	0.17	1.00	0.00	0.00	0.79	0.79	0.06	0.06	0.06			
Sat Flow, veh/h	3510	1900	0	0	3705	1610	1236	602	1610			
Grp Volume(v), veh/h	576	752	0	0	285	1015	116	0	106			
Grp Sat Flow(s),veh/h/ln	1755	1900	0	0	1805	1610	1838	0	1610			
Q Serve(g_s), s	13.0	0.0	0.0	0.0	1.4	28.1	5.0	0.0	5.0			
Cycle Q Clear(g_c), s	13.0	0.0	0.0	0.0	1.4	28.1	5.0	0.0	5.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.67		1.00			
Lane Grp Cap(c), veh/h	614	1936	0	0	2865	1278	115	0	101			
V/C Ratio(X)	0.94	0.39	0.00	0.00	0.10	0.79	1.01	0.00	1.05			
Avail Cap(c_a), veh/h	614	1936	0	0	2865	1278	115	0	101			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.71	0.71	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	32.6	0.0	0.0	0.0	1.8	4.6	37.5	0.0	37.5			
Incr Delay (d2), s/veh	17.4	0.4	0.0	0.0	0.1	5.1	86.6	0.0	104.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	6.6	0.2	0.0	0.0	0.2	5.2	4.9	0.0	4.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.0	0.4	0.0	0.0	1.9	9.8	124.1	0.0	142.3			
LnGrp LOS	D	A	A	A	A	A	F	A	F			
Approach Vol, veh/h		1328			1300			222				
Approach Delay, s/veh		21.9			8.0			132.8				
Approach LOS		C			A			F				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		87.5			18.0	69.5		10.0				
Change Period (Y+Rc), s		5.5			4.0	* 5.5		5.0				
Max Green Setting (Gmax), s		64.5			14.0	* 47		5.0				
Max Q Clear Time (g_c+I1), s		2.0			15.0	30.1		7.0				
Green Ext Time (p_c), s		6.0			0.0	6.4		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	24.2
HCM 6th LOS	C

Notes

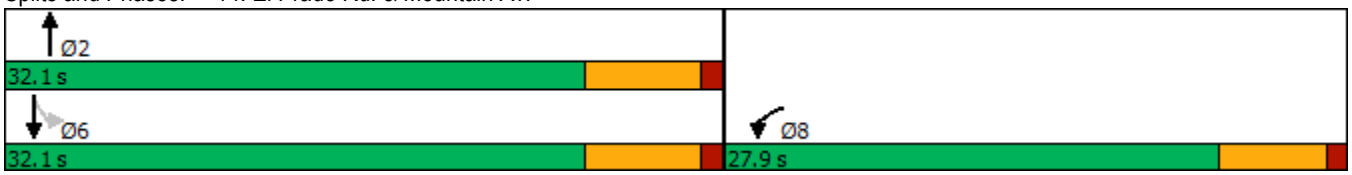
User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	133	289	13	124
Future Volume (vph)	133	289	13	124
Turn Type	Prot	NA	Perm	NA
Protected Phases	8	2		6
Permitted Phases			6	
Detector Phase	8	2	6	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	10.0
Minimum Split (s)	27.8	28.2	16.2	16.2
Total Split (s)	27.9	32.1	32.1	32.1
Total Split (%)	46.5%	53.5%	53.5%	53.5%
Yellow Time (s)	4.8	5.2	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	5.8	6.2		6.2
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	Min	Min	Min

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 41.7
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 14: El Prado Rd. & Mountain Av.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	133	56	289	233	13	124
Future Volume (veh/h)	133	56	289	233	13	124
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1800	1900	1900	1900	1800	1900
Adj Flow Rate, veh/h	145	61	314	253	14	135
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	284	120	405	326	133	724
Arrive On Green	0.25	0.25	0.42	0.42	0.42	0.42
Sat Flow, veh/h	1159	488	974	785	53	1739
Grp Volume(v), veh/h	207	0	0	567	149	0
Grp Sat Flow(s),veh/h/ln	1654	0	0	1759	1792	0
Q Serve(g_s), s	3.8	0.0	0.0	9.8	0.0	0.0
Cycle Q Clear(g_c), s	3.8	0.0	0.0	9.8	9.9	0.0
Prop In Lane	0.70	0.29		0.45	0.09	
Lane Grp Cap(c), veh/h	406	0	0	732	857	0
V/C Ratio(X)	0.51	0.00	0.00	0.77	0.17	0.00
Avail Cap(c_a), veh/h	1032	0	0	1285	1394	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	11.5	0.0	0.0	8.9	6.6	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.0	1.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.0	2.0	0.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.5	0.0	0.0	10.7	6.7	0.0
LnGrp LOS	B	A	A	B	A	A
Approach Vol, veh/h	207		567			149
Approach Delay, s/veh	12.5		10.7			6.7
Approach LOS	B		B			A

Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		20.9			20.9	14.5
Change Period (Y+Rc), s		6.2			6.2	5.8
Max Green Setting (Gmax), s		25.9			25.9	22.1
Max Q Clear Time (g_c+I1), s		11.8			11.9	5.8
Green Ext Time (p_c), s		2.9			0.5	0.5

Intersection Summary	
HCM 6th Ctrl Delay	10.5
HCM 6th LOS	B

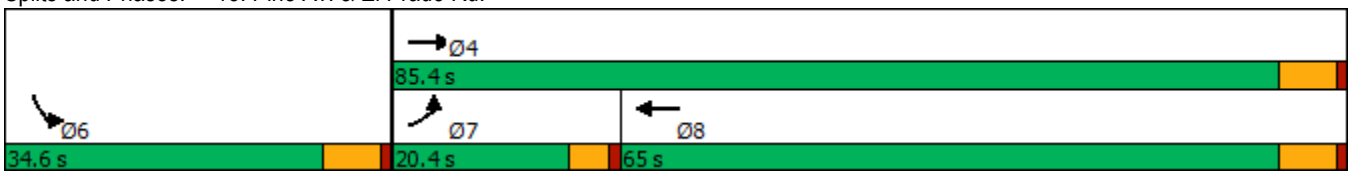
Notes

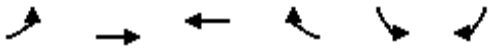
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	190	590	1288	147
Future Volume (vph)	190	590	1288	147
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	28.2	33.2
Total Split (s)	20.4	85.4	65.0	34.6
Total Split (%)	17.0%	71.2%	54.2%	28.8%
Yellow Time (s)	3.6	5.2	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	6.2
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 112
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 15: Pine Av. & El Prado Rd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	190	590	1288	333	147	111
Future Volume (veh/h)	190	590	1288	333	147	111
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1900	1976	1900
Adj Flow Rate, veh/h	209	648	1415	366	162	122
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	236	2558	1512	380	182	137
Arrive On Green	0.14	0.71	0.53	0.53	0.18	0.18
Sat Flow, veh/h	1714	3705	2953	717	1016	765
Grp Volume(v), veh/h	209	648	878	903	285	0
Grp Sat Flow(s),veh/h/ln	1714	1805	1805	1771	1787	0
Q Serve(g_s), s	13.2	7.0	49.2	54.1	17.2	0.0
Cycle Q Clear(g_c), s	13.2	7.0	49.2	54.1	17.2	0.0
Prop In Lane	1.00			0.41	0.57	0.43
Lane Grp Cap(c), veh/h	236	2558	955	937	320	0
V/C Ratio(X)	0.88	0.25	0.92	0.96	0.89	0.00
Avail Cap(c_a), veh/h	246	2592	962	944	460	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	46.7	5.7	23.8	25.0	44.2	0.0
Incr Delay (d2), s/veh	27.7	0.1	13.5	21.0	14.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	2.0	21.8	25.1	8.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	74.4	5.8	37.3	45.9	58.5	0.0
LnGrp LOS	E	A	D	D	E	A
Approach Vol, veh/h		857	1781		285	
Approach Delay, s/veh		22.5	41.7		58.5	
Approach LOS		C	D		E	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			84.4		26.0	19.8	64.6
Change Period (Y+Rc), s			6.2		6.2	4.6	6.2
Max Green Setting (Gmax), s			79.2		28.4	15.8	58.8
Max Q Clear Time (g_c+I1), s			9.0		19.2	15.2	56.1
Green Ext Time (p_c), s			4.4		0.6	0.0	2.3

Intersection Summary		
HCM 6th Ctrl Delay		37.7
HCM 6th LOS		D

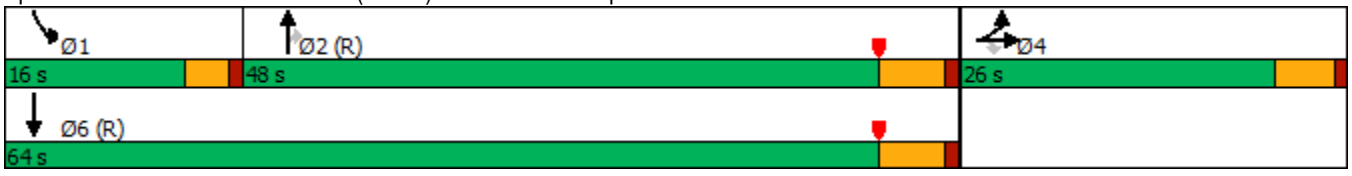
Notes

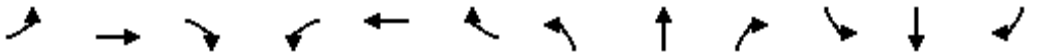
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	520	3	665	1211	867	459	1599
Future Volume (vph)	520	3	665	1211	867	459	1599
Turn Type	Split	NA	Perm	NA	Perm	Prot	NA
Protected Phases	4	4		2		1	6
Permitted Phases			4		2		
Detector Phase	4	4	4	2	2	1	6
Switch Phase							
Minimum Initial (s)	6.0	6.0	6.0	10.0	10.0	5.0	10.0
Minimum Split (s)	11.0	11.0	11.0	22.5	22.5	9.0	22.5
Total Split (s)	26.0	26.0	26.0	48.0	48.0	16.0	64.0
Total Split (%)	28.9%	28.9%	28.9%	53.3%	53.3%	17.8%	71.1%
Yellow Time (s)	4.0	4.0	4.0	4.5	4.5	3.0	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.5	5.5	4.0	5.5
Lead/Lag				Lag	Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	
Recall Mode	None	None	None	C-Min	C-Min	None	C-Min
Act Effct Green (s)	21.0	21.0	21.0	42.5	42.5	12.0	58.5
Actuated g/C Ratio	0.23	0.23	0.23	0.47	0.47	0.13	0.65
v/c Ratio	1.08	1.08	0.97	0.75	0.82	1.04	0.72
Control Delay	103.2	103.1	67.0	22.8	12.4	76.5	5.8
Queue Delay	8.5	6.9	0.0	0.0	0.0	0.0	2.6
Total Delay	111.7	110.1	67.0	22.8	12.4	76.5	8.5
LOS	F	F	E	C	B	E	A
Approach Delay		96.6		18.5			23.6
Approach LOS		F		B			C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.08	
Intersection Signal Delay: 37.9	Intersection LOS: D
Intersection Capacity Utilization 150.9%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 20: Euclid Av. (SR-83) & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	520	3	665	0	0	0	0	1211	867	459	1599	0
Future Volume (veh/h)	520	3	665	0	0	0	0	1211	867	459	1599	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	764	0	415				0	1275	714	483	1683	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	844	0	376				0	1705	749	468	2346	0
Arrive On Green	0.23	0.00	0.23				0.00	0.47	0.47	0.27	1.00	0.00
Sat Flow, veh/h	3619	0	1610				0	3705	1586	3510	3705	0
Grp Volume(v), veh/h	764	0	415				0	1275	714	483	1683	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1805	1586	1755	1805	0
Q Serve(g_s), s	18.5	0.0	21.0				0.0	25.9	38.9	12.0	0.0	0.0
Cycle Q Clear(g_c), s	18.5	0.0	21.0				0.0	25.9	38.9	12.0	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	844	0	376				0	1705	749	468	2347	0
V/C Ratio(X)	0.90	0.00	1.10				0.00	0.75	0.95	1.03	0.72	0.00
Avail Cap(c_a), veh/h	844	0	376				0	1705	749	468	2347	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.43	0.43	0.19	0.19	0.00
Uniform Delay (d), s/veh	33.5	0.0	34.5				0.0	19.4	22.8	33.0	0.0	0.0
Incr Delay (d2), s/veh	12.8	0.0	77.7				0.0	1.3	13.0	26.9	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	0.0	15.7				0.0	10.0	15.5	5.8	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.4	0.0	112.2				0.0	20.7	35.8	59.9	0.4	0.0
LnGrp LOS	D	A	F				A	C	D	F	A	A
Approach Vol, veh/h		1179						1989			2166	
Approach Delay, s/veh		69.5						26.1			13.7	
Approach LOS		E						C			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	16.0	48.0		26.0		64.0
Change Period (Y+Rc), s	4.0	5.5		5.0		5.5
Max Green Setting (Gmax), s	12.0	42.5		21.0		58.5
Max Q Clear Time (g_c+I1), s	14.0	40.9		23.0		2.0
Green Ext Time (p_c), s	0.0	1.5		0.0		30.5

Intersection Summary		
HCM 6th Ctrl Delay		30.7
HCM 6th LOS		C

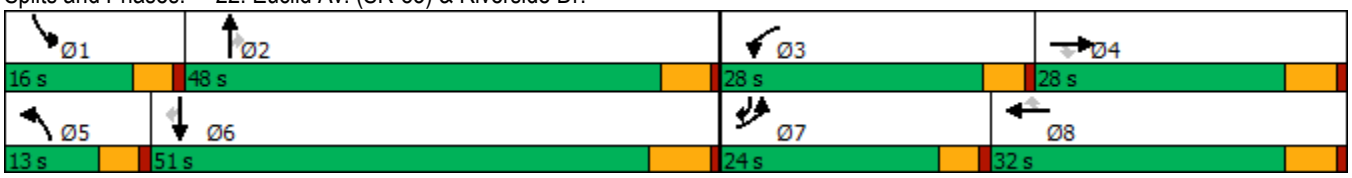
Notes

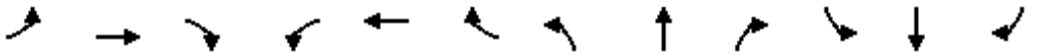
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	193	453	129	241	616	145	156	1330	201	219	1620	192
Future Volume (vph)	193	453	129	241	616	145	156	1330	201	219	1620	192
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	25.8	25.8	9.6	31.8	31.8	9.6	30.4	30.4	9.6	34.5	9.6
Total Split (s)	24.0	28.0	28.0	28.0	32.0	32.0	13.0	48.0	48.0	16.0	51.0	24.0
Total Split (%)	20.0%	23.3%	23.3%	23.3%	26.7%	26.7%	10.8%	40.0%	40.0%	13.3%	42.5%	20.0%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-1.8	-1.8	-0.6	-1.8	-1.8	-0.6	-1.4	-1.4	-0.6	-2.5	-0.6
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	None
Act Effct Green (s)	17.2	22.5	22.5	20.6	25.9	25.9	8.7	44.6	44.6	11.2	47.2	64.4
Actuated g/C Ratio	0.15	0.20	0.20	0.18	0.23	0.23	0.08	0.39	0.39	0.10	0.41	0.56
v/c Ratio	0.79	0.68	0.32	0.83	0.80	0.32	0.66	0.70	0.28	0.71	0.80	0.22
Control Delay	70.0	48.7	8.9	68.3	50.6	7.8	66.0	32.7	4.4	64.1	34.2	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.0	48.7	8.9	68.3	50.6	7.8	66.0	32.7	4.4	64.1	34.2	8.0
LOS	E	D	A	E	D	A	E	C	A	E	C	A
Approach Delay		47.4			48.7			32.4			35.0	
Approach LOS		D			D			C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 115	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 38.4	Intersection LOS: D
Intersection Capacity Utilization 77.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 22: Euclid Av. (SR-83) & Riverside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	453	129	241	616	145	156	1330	201	219	1620	192
Future Volume (veh/h)	193	453	129	241	616	145	156	1330	201	219	1620	192
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	203	477	120	254	648	124	164	1400	172	231	1705	143
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	239	695	310	290	802	358	237	2042	634	305	2199	879
Arrive On Green	0.14	0.19	0.19	0.17	0.22	0.22	0.07	0.39	0.39	0.09	0.42	0.41
Sat Flow, veh/h	1714	3610	1610	1714	3610	1610	3326	5187	1610	3326	5187	1609
Grp Volume(v), veh/h	203	477	120	254	648	124	164	1400	172	231	1705	143
Grp Sat Flow(s),veh/h/ln	1714	1805	1610	1714	1805	1610	1663	1729	1610	1663	1729	1609
Q Serve(g_s), s	12.9	13.7	7.3	16.2	19.0	7.3	5.4	25.1	8.1	7.6	31.5	4.9
Cycle Q Clear(g_c), s	12.9	13.7	7.3	16.2	19.0	7.3	5.4	25.1	8.1	7.6	31.5	4.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	239	695	310	290	802	358	237	2042	634	305	2199	879
V/C Ratio(X)	0.85	0.69	0.39	0.88	0.81	0.35	0.69	0.69	0.27	0.76	0.78	0.16
Avail Cap(c_a), veh/h	307	775	346	368	904	403	268	2042	634	357	2199	879
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.9	42.0	39.4	45.3	41.2	36.6	50.7	28.1	23.0	49.6	27.6	12.6
Incr Delay (d2), s/veh	13.3	2.2	0.8	14.8	5.0	0.6	4.7	1.9	1.1	6.1	2.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	6.1	2.9	7.8	8.7	2.8	2.3	9.8	3.1	3.3	12.9	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.3	44.2	40.2	60.1	46.2	37.2	55.4	30.0	24.1	55.7	30.4	13.0
LnGrp LOS	E	D	D	E	D	D	E	C	C	E	C	B
Approach Vol, veh/h		800			1026			1736			2079	
Approach Delay, s/veh		47.7			48.6			31.9			32.0	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.3	49.1	22.9	25.5	12.0	51.4	19.6	28.8
Change Period (Y+Rc), s	4.6	* 6.5	4.6	5.8	4.6	6.5	4.6	5.8
Max Green Setting (Gmax), s	11.4	* 43	23.4	22.2	8.4	44.5	19.4	26.2
Max Q Clear Time (g_c+I1), s	9.6	27.1	18.2	15.7	7.4	33.5	14.9	21.0
Green Ext Time (p_c), s	0.1	8.3	0.2	1.8	0.0	8.0	0.1	2.0

Intersection Summary	
HCM 6th Ctrl Delay	37.2
HCM 6th LOS	D

Notes

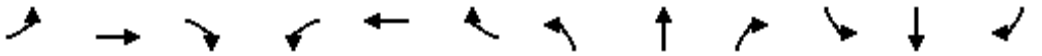
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	131	243	63	105	285	67	1430	180	70	1755	116
Future Volume (vph)	131	243	63	105	285	67	1430	180	70	1755	116
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	28.8	28.8	28.8	33.8	33.8	9.6	24.2	24.2	9.6	31.5	31.5
Total Split (s)	49.0	49.0	49.0	49.0	49.0	13.0	56.2	56.2	14.8	58.0	58.0
Total Split (%)	40.8%	40.8%	40.8%	40.8%	40.8%	10.8%	46.8%	46.8%	12.3%	48.3%	48.3%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	3.6	4.2	4.2	3.6	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.8	-1.8	-1.8	-1.8	-1.8	-0.6	-1.2	-1.2	-0.6	-2.5	-2.5
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max
Act Effct Green (s)	30.6	30.6	30.6	30.6	30.6	8.0	54.4	54.4	8.8	55.2	55.2
Actuated g/C Ratio	0.30	0.30	0.30	0.30	0.30	0.08	0.53	0.53	0.09	0.53	0.53
v/c Ratio	1.06	0.46	0.13	0.49	0.71	0.54	0.56	0.22	0.51	0.68	0.14
Control Delay	132.1	32.2	5.6	37.6	38.6	65.7	20.2	12.1	61.9	22.0	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	132.1	32.2	5.6	37.6	38.6	65.7	20.2	12.1	61.9	22.0	5.0
LOS	F	C	A	D	D	E	C	B	E	C	A
Approach Delay		58.2			38.3		21.2			22.4	
Approach LOS		E			D		C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 103.5	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay: 27.1	Intersection LOS: C
Intersection Capacity Utilization 79.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 23: Euclid Av. (SR-83) & Chino Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	243	63	105	285	80	67	1430	180	70	1755	116
Future Volume (veh/h)	131	243	63	105	285	80	67	1430	180	70	1755	116
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	139	259	51	112	303	73	71	1521	167	74	1867	92
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	245	657	556	328	510	123	99	2460	764	103	2532	770
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.33	0.06	0.47	0.47	0.06	0.49	0.49
Sat Flow, veh/h	1023	1900	1609	1086	1475	355	1714	5187	1610	1714	5187	1577
Grp Volume(v), veh/h	139	259	51	112	0	376	71	1521	167	74	1867	92
Grp Sat Flow(s),veh/h/ln	1023	1900	1609	1086	0	1831	1714	1729	1610	1714	1729	1577
Q Serve(g_s), s	14.3	11.4	2.4	9.6	0.0	18.8	4.5	24.1	6.7	4.7	31.8	3.5
Cycle Q Clear(g_c), s	33.1	11.4	2.4	21.1	0.0	18.8	4.5	24.1	6.7	4.7	31.8	3.5
Prop In Lane	1.00		1.00	1.00		0.19	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	245	657	556	328	0	633	99	2460	764	103	2532	770
V/C Ratio(X)	0.57	0.39	0.09	0.34	0.00	0.59	0.72	0.62	0.22	0.72	0.74	0.12
Avail Cap(c_a), veh/h	308	773	654	395	0	745	139	2460	764	167	2532	770
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.4	27.4	24.5	35.4	0.0	30.0	51.2	21.6	17.1	51.1	22.6	15.4
Incr Delay (d2), s/veh	2.1	0.4	0.1	0.6	0.0	0.9	4.4	1.2	0.7	3.5	2.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	5.0	0.9	2.5	0.0	8.0	2.0	9.0	2.4	2.0	11.9	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.5	27.8	24.5	36.0	0.0	30.9	55.6	22.8	17.7	54.6	24.6	15.7
LnGrp LOS	D	C	C	D	A	C	E	C	B	D	C	B
Approach Vol, veh/h		449			488			1759			2033	
Approach Delay, s/veh		32.9			32.1			23.7			25.3	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.6	57.8		42.2	10.4	58.0		42.2				
Change Period (Y+Rc), s	4.6	* 6.5		5.8	4.6	6.5		5.8				
Max Green Setting (Gmax), s	10.2	* 51		43.2	8.4	51.5		43.2				
Max Q Clear Time (g_c+I1), s	6.7	26.1		35.1	6.5	33.8		23.1				
Green Ext Time (p_c), s	0.0	11.7		1.4	0.0	11.6		2.5				

Intersection Summary			
HCM 6th Ctrl Delay		26.1	
HCM 6th LOS		C	

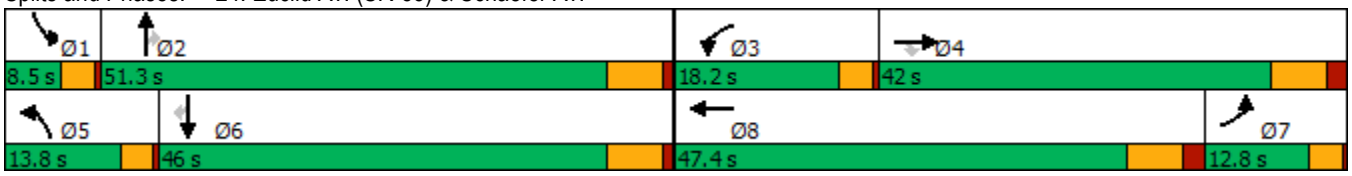
Notes

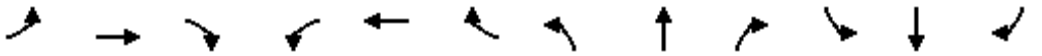
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	193	92	98	177	377	229	1391	44	39	1657	457
Future Volume (vph)	193	92	98	177	377	229	1391	44	39	1657	457
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.5	42.0	42.0	13.5	43.0	8.5	33.0	33.0	8.5	28.0	28.0
Total Split (s)	12.8	42.0	42.0	18.2	47.4	13.8	51.3	51.3	8.5	46.0	46.0
Total Split (%)	10.7%	35.0%	35.0%	15.2%	39.5%	11.5%	42.8%	42.8%	7.1%	38.3%	38.3%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.5	-3.0	-3.0	0.5	-3.0	0.5	-2.0	-2.0	0.5	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	8.7	36.6	36.6	14.1	41.9	9.8	49.1	49.1	4.5	42.0	42.0
Actuated g/C Ratio	0.07	0.31	0.31	0.12	0.35	0.08	0.41	0.41	0.04	0.35	0.35
v/c Ratio	0.85	0.17	0.18	0.94	0.93	0.90	0.70	0.06	0.33	0.97	0.67
Control Delay	84.6	30.7	4.3	101.5	57.9	88.1	31.4	0.2	63.7	52.8	19.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.6	30.7	4.3	101.5	57.9	88.1	31.4	0.2	63.7	52.8	19.6
LOS	F	C	A	F	E	F	C	A	E	D	B
Approach Delay		51.1			68.3		38.4			46.0	
Approach LOS		D			E		D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 118.5	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 47.2	Intersection LOS: D
Intersection Capacity Utilization 89.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 24: Euclid Av. (SR-83) & Schaefer Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	92	98	177	377	186	229	1391	44	39	1657	457
Future Volume (veh/h)	193	92	98	177	377	186	229	1391	44	39	1657	457
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	208	99	86	190	405	198	246	1496	37	42	1782	457
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	237	638	541	197	423	207	264	2036	632	89	1764	547
Arrive On Green	0.07	0.34	0.34	0.11	0.35	0.33	0.08	0.39	0.39	0.03	0.34	0.34
Sat Flow, veh/h	3326	1900	1610	1714	1204	588	3326	5187	1610	3326	5187	1607
Grp Volume(v), veh/h	208	99	86	190	0	603	246	1496	37	42	1782	457
Grp Sat Flow(s),veh/h/ln	1663	1900	1610	1714	0	1792	1663	1729	1610	1663	1729	1607
Q Serve(g_s), s	7.7	4.5	4.6	13.6	0.0	40.6	9.1	30.4	1.8	1.5	42.0	22.7
Cycle Q Clear(g_c), s	7.7	4.5	4.6	13.6	0.0	40.6	9.1	30.4	1.8	1.5	42.0	22.7
Prop In Lane	1.00		1.00	1.00		0.33	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	237	638	541	197	0	630	264	2036	632	89	1764	547
V/C Ratio(X)	0.88	0.16	0.16	0.96	0.00	0.96	0.93	0.73	0.06	0.47	1.01	0.84
Avail Cap(c_a), veh/h	237	638	541	197	0	630	264	2036	632	121	1764	547
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.8	28.7	28.8	54.4	0.0	39.6	56.5	32.0	23.3	59.2	40.8	18.5
Incr Delay (d2), s/veh	28.0	0.1	0.1	53.2	0.0	25.6	37.1	1.4	0.0	1.4	24.0	10.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	2.0	1.8	8.6	0.0	21.6	5.0	12.1	0.7	0.6	20.5	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.8	28.8	28.9	107.6	0.0	65.2	93.6	33.4	23.4	60.7	64.7	29.4
LnGrp LOS	F	C	C	F	A	E	F	C	C	E	F	C
Approach Vol, veh/h		393			793			1779			2281	
Approach Delay, s/veh		58.5			75.4			41.5			57.6	
Approach LOS		E			E			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	52.5	18.2	45.5	13.8	46.0	16.3	47.4
Change Period (Y+Rc), s	3.5	6.0	3.5	7.0	3.5	6.0	7.0	* 7
Max Green Setting (Gmax), s	5.0	45.3	14.7	35.0	10.3	40.0	9.3	* 40
Max Q Clear Time (g_c+I1), s	3.5	32.4	15.6	6.6	11.1	44.0	9.7	42.6
Green Ext Time (p_c), s	0.0	7.5	0.0	0.6	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	54.9
HCM 6th LOS	D

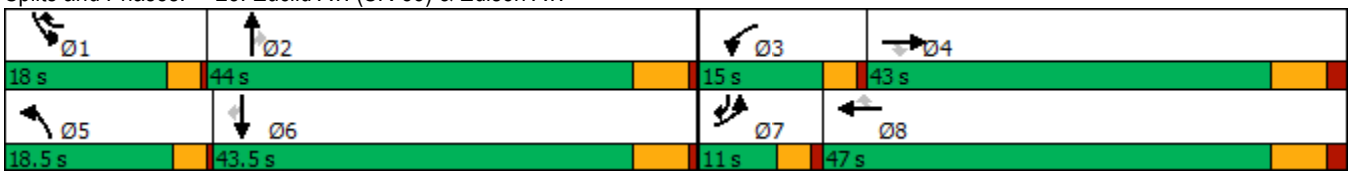
Notes

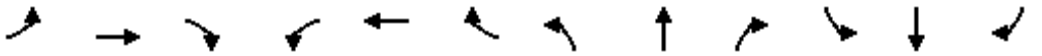
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	196	971	162	210	1121	336	282	1292	152	286	1433	211
Future Volume (vph)	196	971	162	210	1121	336	282	1292	152	286	1433	211
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4		3	8	1	5	2		1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	1	5	2	2	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.0	39.5	39.5	9.0	43.0	8.5	8.5	29.0	29.0	8.5	38.5	9.0
Total Split (s)	11.0	43.0	43.0	15.0	47.0	18.0	18.5	44.0	44.0	18.0	43.5	11.0
Total Split (%)	9.2%	35.8%	35.8%	12.5%	39.2%	15.0%	15.4%	36.7%	36.7%	15.0%	36.3%	9.2%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	3.0	5.0	5.0	3.0	5.0	3.0
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0	0.5	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	-3.0	-3.0	0.0	-3.0	0.5	0.5	-2.0	-2.0	0.5	-2.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	None
Act Effct Green (s)	7.0	38.6	38.6	10.5	42.2	55.1	13.4	38.9	38.9	13.0	38.5	45.5
Actuated g/C Ratio	0.06	0.33	0.33	0.09	0.36	0.47	0.11	0.33	0.33	0.11	0.33	0.39
v/c Ratio	1.09	0.59	0.26	0.78	0.90	0.45	0.82	0.78	0.26	0.81	0.84	0.33
Control Delay	143.7	34.7	5.4	71.9	46.3	16.8	70.1	39.3	12.0	69.2	41.8	17.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	143.7	34.7	5.4	71.9	46.3	16.8	70.1	39.3	12.0	69.2	41.8	17.1
LOS	F	C	A	E	D	B	E	D	B	E	D	B
Approach Delay		47.2			43.5			41.9			43.1	
Approach LOS		D			D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 117.1	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.09	
Intersection Signal Delay: 43.7	Intersection LOS: D
Intersection Capacity Utilization 87.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 25: Euclid Av. (SR-83) & Edison Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	196	971	162	210	1121	336	282	1292	152	286	1433	211
Future Volume (veh/h)	196	971	162	210	1121	336	282	1292	152	286	1433	211
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1900	1900	1700	1900	1900	1700	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	204	1011	114	219	1168	345	294	1346	150	298	1493	169
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	191	1767	548	271	1321	705	334	1721	534	341	1776	591
Arrive On Green	0.06	0.34	0.34	0.09	0.37	0.34	0.11	0.33	0.33	0.10	0.33	0.31
Sat Flow, veh/h	3141	5187	1609	3141	3610	1609	3141	5187	1610	3326	5415	1587
Grp Volume(v), veh/h	204	1011	114	219	1168	345	294	1346	150	298	1493	169
Grp Sat Flow(s),veh/h/ln	1570	1729	1609	1570	1805	1609	1570	1729	1610	1663	1805	1587
Q Serve(g_s), s	7.0	18.4	5.8	7.9	34.9	17.7	10.6	27.0	7.9	10.2	29.5	8.6
Cycle Q Clear(g_c), s	7.0	18.4	5.8	7.9	34.9	17.7	10.6	27.0	7.9	10.2	29.5	8.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	191	1767	548	271	1321	705	334	1721	534	341	1776	591
V/C Ratio(X)	1.07	0.57	0.21	0.81	0.88	0.49	0.88	0.78	0.28	0.87	0.84	0.29
Avail Cap(c_a), veh/h	191	1767	548	300	1347	717	395	1801	559	404	1856	614
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.1	31.1	27.0	51.7	34.2	23.1	50.7	34.7	28.4	51.0	35.9	25.5
Incr Delay (d2), s/veh	84.7	0.4	0.2	12.4	7.2	0.5	16.0	2.2	0.3	15.0	3.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	7.4	2.2	3.5	15.8	6.4	4.7	10.9	3.0	4.8	12.6	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	138.8	31.6	27.1	64.1	41.4	23.7	66.7	37.0	28.6	65.9	39.5	25.8
LnGrp LOS	F	C	C	E	D	C	E	D	C	E	D	C
Approach Vol, veh/h		1329			1732			1790			1960	
Approach Delay, s/veh		47.6			40.8			41.1			42.3	
Approach LOS		D			D			D			D	

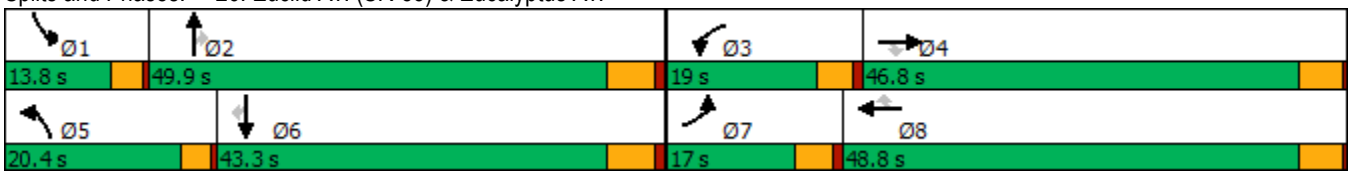
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.8	42.2	13.9	43.2	16.3	41.8	11.0	46.2
Change Period (Y+Rc), s	3.5	6.0	4.0	7.0	3.5	6.0	4.0	7.0
Max Green Setting (Gmax), s	14.5	38.0	11.0	36.0	15.0	37.5	7.0	40.0
Max Q Clear Time (g_c+I1), s	12.2	29.0	9.9	20.4	12.6	31.5	9.0	36.9
Green Ext Time (p_c), s	0.1	5.5	0.0	6.2	0.1	4.3	0.0	2.2

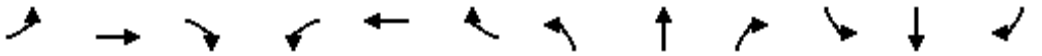
Intersection Summary	
HCM 6th Ctrl Delay	42.7
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	84	42	205	385	194	187	221	1533	133	114	1587	51
Future Volume (vph)	84	42	205	385	194	187	221	1533	133	114	1587	51
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	46.8	46.8	9.5	46.8	46.8	8.5	30.7	30.7	8.5	37.7	37.7
Total Split (s)	17.0	46.8	46.8	19.0	48.8	48.8	20.4	49.9	49.9	13.8	43.3	43.3
Total Split (%)	13.1%	36.1%	36.1%	14.7%	37.7%	37.7%	15.8%	38.5%	38.5%	10.7%	33.4%	33.4%
Yellow Time (s)	3.5	4.3	4.3	3.5	4.3	4.3	3.0	4.7	4.7	3.0	4.7	4.7
All-Red Time (s)	1.0	0.5	0.5	1.0	0.5	0.5	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	-0.5	-0.8	-0.8	-0.5	-0.8	-0.8	0.5	-1.7	-1.7	0.5	-1.7	-1.7
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	10.5	15.5	15.5	15.2	22.7	22.7	16.6	46.8	46.8	9.8	39.9	39.9
Actuated g/C Ratio	0.10	0.15	0.15	0.15	0.22	0.22	0.16	0.45	0.45	0.09	0.39	0.39
v/c Ratio	0.50	0.15	0.50	0.81	0.47	0.38	0.82	0.67	0.18	0.72	0.81	0.08
Control Delay	56.9	36.5	8.8	57.9	39.7	6.8	68.0	26.0	10.0	72.6	33.9	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.9	36.5	8.8	57.9	39.7	6.8	68.0	26.0	10.0	72.6	33.9	0.2
LOS	E	D	A	E	D	A	E	C	B	E	C	A
Approach Delay		24.6			40.8			29.8			35.4	
Approach LOS		C			D			C			D	

Intersection Summary	
Cycle Length: 129.5	
Actuated Cycle Length: 103.5	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 33.3	Intersection LOS: C
Intersection Capacity Utilization 72.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 26: Euclid Av. (SR-83) & Eucalyptus Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	42	205	385	194	187	221	1533	133	114	1587	51
Future Volume (veh/h)	84	42	205	385	194	187	221	1533	133	114	1587	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	86	43	123	393	198	183	226	1564	135	116	1619	41
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	120	212	180	492	361	306	254	2460	763	136	2102	652
Arrive On Green	0.07	0.11	0.11	0.15	0.19	0.19	0.15	0.47	0.47	0.08	0.41	0.41
Sat Flow, veh/h	1714	1900	1610	3326	1900	1610	1714	5187	1610	1714	5187	1608
Grp Volume(v), veh/h	86	43	123	393	198	183	226	1564	135	116	1619	41
Grp Sat Flow(s),veh/h/ln	1714	1900	1610	1663	1900	1610	1714	1729	1610	1714	1729	1608
Q Serve(g_s), s	4.2	1.8	6.3	9.8	8.1	8.9	11.1	19.4	4.1	5.7	23.1	1.3
Cycle Q Clear(g_c), s	4.2	1.8	6.3	9.8	8.1	8.9	11.1	19.4	4.1	5.7	23.1	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	120	212	180	492	361	306	254	2460	763	136	2102	652
V/C Ratio(X)	0.72	0.20	0.69	0.80	0.55	0.60	0.89	0.64	0.18	0.86	0.77	0.06
Avail Cap(c_a), veh/h	261	951	806	584	996	844	329	2785	865	197	2385	739
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.9	34.5	36.5	35.2	31.3	31.7	35.7	16.9	12.9	38.9	22.0	15.5
Incr Delay (d2), s/veh	7.8	0.3	3.4	6.6	1.0	1.4	19.6	0.4	0.1	19.0	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.8	2.5	4.2	3.6	3.4	5.6	6.4	1.3	2.9	8.2	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.8	34.9	39.9	41.7	32.3	33.1	55.3	17.3	13.0	57.9	23.4	15.6
LnGrp LOS	D	C	D	D	C	C	E	B	B	E	C	B
Approach Vol, veh/h		252			774			1925			1776	
Approach Delay, s/veh		41.4			37.3			21.5			25.5	
Approach LOS		D			D			C			C	

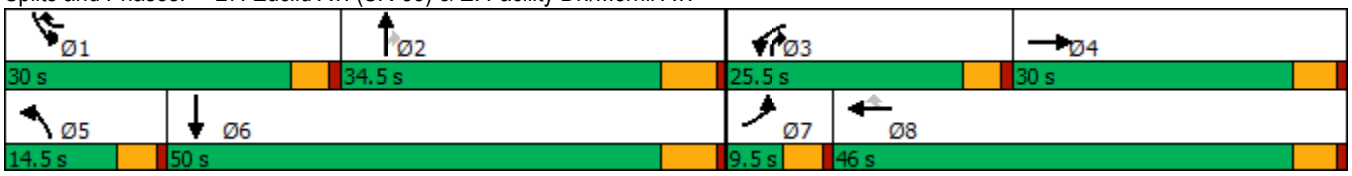
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	44.5	16.7	13.5	16.7	38.6	10.0	20.2
Change Period (Y+Rc), s	3.5	5.7	4.5	4.8	3.5	5.7	4.5	4.8
Max Green Setting (Gmax), s	10.3	44.2	14.5	42.0	16.9	37.6	12.5	44.0
Max Q Clear Time (g_c+I1), s	7.7	21.4	11.8	8.3	13.1	25.1	6.2	10.9
Green Ext Time (p_c), s	0.0	11.4	0.4	0.4	0.2	7.9	0.1	1.2

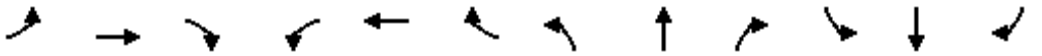
Intersection Summary	
HCM 6th Ctrl Delay	26.6
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	10	10	388	60	458	13	1300	443	364	1510
Future Volume (vph)	10	10	388	60	458	13	1300	443	364	1510
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	3	8	1	5	2	3	1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	1	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	15.0	10.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	9.5	10.0	9.5	46.0	14.5	14.5	28.0	9.5	14.5	28.0
Total Split (s)	9.5	30.0	25.5	46.0	30.0	14.5	34.5	25.5	30.0	50.0
Total Split (%)	7.9%	25.0%	21.3%	38.3%	25.0%	12.1%	28.8%	21.3%	25.0%	41.7%
Yellow Time (s)	3.5	4.0	3.5	4.0	3.5	3.5	5.0	3.5	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.5	-1.0	-0.5	-1.0	-0.5	-0.5	-2.0	-0.5	-0.5	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	None	Min
Act Effct Green (s)	5.6	9.5	18.4	25.9	56.4	10.7	31.0	53.5	26.4	59.2
Actuated g/C Ratio	0.06	0.10	0.19	0.27	0.58	0.11	0.32	0.55	0.27	0.61
v/c Ratio	0.10	0.17	0.64	0.12	0.48	0.07	0.81	0.46	0.81	0.51
Control Delay	52.3	23.2	42.9	26.6	10.1	46.1	36.7	9.0	50.0	15.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.3	23.2	42.9	26.6	10.1	46.1	36.7	9.0	50.0	15.2
LOS	D	C	D	C	B	D	D	A	D	B
Approach Delay		30.1		25.2			29.8			21.8
Approach LOS		C		C			C			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 97.1	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 25.6	Intersection LOS: C
Intersection Capacity Utilization 74.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 27: Euclid Av. (SR-83) & E. Facility Dr./Merrill Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	10	21	388	60	458	13	1300	443	364	1510	49
Future Volume (veh/h)	10	10	21	388	60	458	13	1300	443	364	1510	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	10	10	21	400	62	445	13	1340	414	375	1557	37
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	30	58	122	510	460	771	62	1667	738	415	2747	65
Arrive On Green	0.02	0.11	0.10	0.15	0.24	0.24	0.04	0.32	0.30	0.24	0.53	0.51
Sat Flow, veh/h	1714	546	1147	3326	1900	1610	1714	5187	1610	1714	5209	124
Grp Volume(v), veh/h	10	0	31	400	62	445	13	1340	414	375	1034	560
Grp Sat Flow(s),veh/h/ln	1714	0	1694	1663	1900	1610	1714	1729	1610	1714	1729	1874
Q Serve(g_s), s	0.5	0.0	1.5	10.5	2.3	18.0	0.7	21.4	17.0	19.2	18.3	18.3
Cycle Q Clear(g_c), s	0.5	0.0	1.5	10.5	2.3	18.0	0.7	21.4	17.0	19.2	18.3	18.3
Prop In Lane	1.00		0.68	1.00		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	30	0	180	510	460	771	62	1667	738	415	1824	989
V/C Ratio(X)	0.33	0.00	0.17	0.78	0.13	0.58	0.21	0.80	0.56	0.90	0.57	0.57
Avail Cap(c_a), veh/h	104	0	485	788	880	1127	198	1744	762	491	1824	989
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.0	0.0	37.2	36.9	26.9	17.0	42.4	28.2	17.9	33.3	14.4	14.5
Incr Delay (d2), s/veh	6.1	0.0	0.2	2.8	0.0	0.3	0.6	2.7	0.9	16.5	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.6	4.2	1.0	5.8	0.3	8.3	5.7	9.1	5.9	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.1	0.0	37.4	39.8	27.0	17.3	43.0	30.9	18.8	49.8	14.9	15.3
LnGrp LOS	D	A	D	D	C	B	D	C	B	D	B	B
Approach Vol, veh/h		41			907			1767			1969	
Approach Delay, s/veh		40.5			27.9			28.2			21.6	
Approach LOS		D			C			C			C	

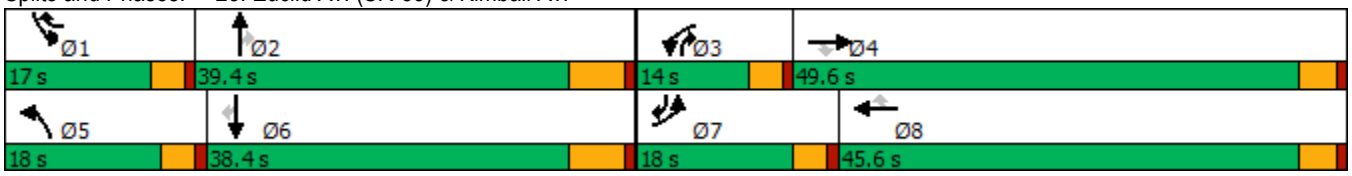
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	33.1	17.9	13.7	7.3	51.8	5.6	26.0
Change Period (Y+Rc), s	4.5	6.0	4.5	5.0	4.5	6.0	4.5	5.0
Max Green Setting (Gmax), s	25.5	28.5	21.0	25.0	10.0	44.0	5.0	41.0
Max Q Clear Time (g_c+I1), s	21.2	23.4	12.5	3.5	2.7	20.3	2.5	20.0
Green Ext Time (p_c), s	0.2	3.7	0.9	0.1	0.0	10.6	0.0	0.9

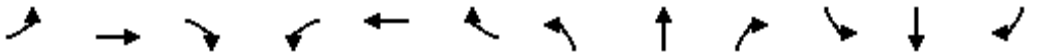
Intersection Summary	
HCM 6th Ctrl Delay	25.5
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	213	322	109	226	941	418	178	1235	68	280	1273	483
Future Volume (vph)	213	322	109	226	941	418	178	1235	68	280	1273	483
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4		3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	14.0	49.5	49.5	14.0	45.5	9.0	14.0	36.0	14.0	9.0	33.0	14.0
Total Split (s)	18.0	49.6	49.6	14.0	45.6	17.0	18.0	39.4	14.0	17.0	38.4	18.0
Total Split (%)	15.0%	41.3%	41.3%	11.7%	38.0%	14.2%	15.0%	32.8%	11.7%	14.2%	32.0%	15.0%
Yellow Time (s)	3.0	3.5	3.5	3.0	3.5	3.0	3.0	5.0	3.0	3.0	5.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	-0.5	-0.5	0.0	-0.5	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	None	Min	None
Act Effct Green (s)	12.0	36.3	36.3	10.1	34.4	50.9	13.7	34.6	48.7	12.5	33.4	45.4
Actuated g/C Ratio	0.11	0.33	0.33	0.09	0.31	0.46	0.12	0.32	0.44	0.11	0.30	0.41
v/c Ratio	0.63	0.28	0.18	0.76	0.85	0.54	0.85	0.77	0.09	0.80	0.82	0.71
Control Delay	56.9	27.3	5.3	67.0	43.5	20.7	82.5	38.7	5.4	66.3	41.5	28.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.9	27.3	5.3	67.0	43.5	20.7	82.5	38.7	5.4	66.3	41.5	28.6
LOS	E	C	A	E	D	C	F	D	A	E	D	C
Approach Delay		33.4			40.8			42.4			41.9	
Approach LOS		C			D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 109.7	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 40.8	Intersection LOS: D
Intersection Capacity Utilization 82.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 28: Euclid Av. (SR-83) & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	213	322	109	226	941	418	178	1235	68	280	1273	483
Future Volume (veh/h)	213	322	109	226	941	418	178	1235	68	280	1273	483
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1900	1900	1800	1900	1900	1800	1900	1900	1700	1900	1900
Adj Flow Rate, veh/h	217	329	102	231	960	391	182	1260	57	286	1299	364
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	303	1131	505	321	1132	673	211	1690	649	344	1619	621
Arrive On Green	0.10	0.31	0.31	0.10	0.31	0.31	0.12	0.33	0.31	0.11	0.31	0.29
Sat Flow, veh/h	3141	3610	1610	3326	3610	1610	1714	5187	1610	3141	5187	1590
Grp Volume(v), veh/h	217	329	102	231	960	391	182	1260	57	286	1299	364
Grp Sat Flow(s),veh/h/ln	1570	1805	1610	1663	1805	1610	1714	1729	1610	1570	1729	1590
Q Serve(g_s), s	6.9	7.1	4.8	7.0	25.7	19.3	10.8	22.4	2.3	9.2	23.8	18.8
Cycle Q Clear(g_c), s	6.9	7.1	4.8	7.0	25.7	19.3	10.8	22.4	2.3	9.2	23.8	18.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	303	1131	505	321	1132	673	211	1690	649	344	1619	621
V/C Ratio(X)	0.72	0.29	0.20	0.72	0.85	0.58	0.86	0.75	0.09	0.83	0.80	0.59
Avail Cap(c_a), veh/h	425	1592	710	322	1452	816	232	1776	676	395	1726	654
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.3	26.8	26.0	45.3	33.2	23.1	44.5	31.0	19.1	45.1	32.6	25.0
Incr Delay (d2), s/veh	1.5	0.1	0.2	6.6	3.2	0.3	23.4	1.7	0.1	11.1	2.7	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	2.9	1.8	3.1	11.1	6.8	5.7	8.8	0.8	3.9	9.5	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.8	27.0	26.2	51.9	36.4	23.4	67.9	32.7	19.2	56.2	35.3	26.3
LnGrp LOS	D	C	C	D	D	C	E	C	B	E	D	C
Approach Vol, veh/h		648			1582			1499			1949	
Approach Delay, s/veh		33.5			35.4			36.5			36.7	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.3	37.7	14.0	36.4	16.7	36.3	14.0	36.4
Change Period (Y+Rc), s	4.0	6.0	4.0	4.5	4.0	6.0	4.0	4.5
Max Green Setting (Gmax), s	13.0	33.4	10.0	45.1	14.0	32.4	14.0	41.1
Max Q Clear Time (g_c+I1), s	11.2	24.4	9.0	9.1	12.8	25.8	8.9	27.7
Green Ext Time (p_c), s	0.1	5.0	0.0	2.4	0.0	4.5	0.2	4.2

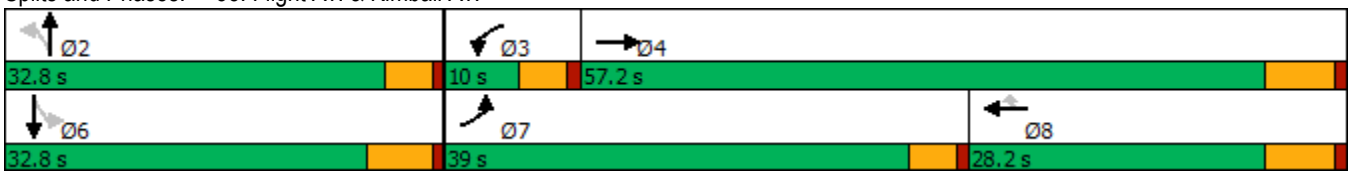
Intersection Summary	
HCM 6th Ctrl Delay	35.9
HCM 6th LOS	D

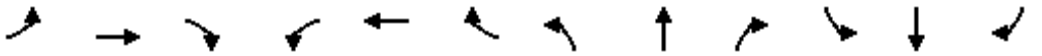
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	608	529	17	749	147	7	12	176	12
Future Volume (vph)	608	529	17	749	147	7	12	176	12
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA
Protected Phases	7	4	3	8			2		6
Permitted Phases					8	2		6	
Detector Phase	7	4	3	8	8	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.2	9.6	28.2	28.2	31.6	31.6	32.8	32.8
Total Split (s)	39.0	57.2	10.0	28.2	28.2	32.8	32.8	32.8	32.8
Total Split (%)	39.0%	57.2%	10.0%	28.2%	28.2%	32.8%	32.8%	32.8%	32.8%
Yellow Time (s)	3.6	5.2	3.6	5.2	5.2	3.6	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	6.2	6.2		4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	Min	Min	Min	Min

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 95.9
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 38: Flight Av. & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	608	529	24	17	749	147	7	12	176	176	12	136
Future Volume (veh/h)	608	529	24	17	749	147	7	12	176	176	12	136
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	640	557	25	18	788	155	7	13	185	185	13	143
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	618	2011	90	34	833	371	44	33	344	288	32	351
Arrive On Green	0.36	0.57	0.57	0.02	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1714	3519	158	1714	3610	1610	19	140	1467	1140	136	1495
Grp Volume(v), veh/h	640	285	297	18	788	155	205	0	0	185	0	156
Grp Sat Flow(s),veh/h/ln	1714	1805	1871	1714	1805	1610	1626	0	0	1140	0	1631
Q Serve(g_s), s	34.4	7.7	7.7	1.0	20.5	7.8	0.0	0.0	0.0	9.2	0.0	7.7
Cycle Q Clear(g_c), s	34.4	7.7	7.7	1.0	20.5	7.8	10.5	0.0	0.0	19.6	0.0	7.7
Prop In Lane	1.00		0.08	1.00		1.00	0.03		0.90	1.00		0.92
Lane Grp Cap(c), veh/h	618	1032	1070	34	833	371	420	0	0	288	0	382
V/C Ratio(X)	1.03	0.28	0.28	0.53	0.95	0.42	0.49	0.00	0.00	0.64	0.00	0.41
Avail Cap(c_a), veh/h	618	1032	1070	97	833	371	519	0	0	343	0	462
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.5	10.4	10.4	46.3	36.1	31.2	31.9	0.0	0.0	36.8	0.0	30.9
Incr Delay (d2), s/veh	45.5	0.1	0.1	4.6	19.3	0.7	0.9	0.0	0.0	3.1	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.5	2.6	2.7	0.4	10.6	2.9	4.2	0.0	0.0	4.2	0.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.0	10.5	10.5	50.9	55.4	32.0	32.8	0.0	0.0	39.9	0.0	31.6
LnGrp LOS	F	B	B	D	E	C	C	A	A	D	A	C
Approach Vol, veh/h		1222			961			205			341	
Approach Delay, s/veh		44.8			51.6			32.8			36.1	
Approach LOS		D			D			C			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		28.2	6.5	60.7		28.2	39.0	28.2				
Change Period (Y+Rc), s		* 5.8	4.6	6.2		5.8	4.6	6.2				
Max Green Setting (Gmax), s		* 28	5.4	51.0		27.0	34.4	22.0				
Max Q Clear Time (g_c+I1), s		12.5	3.0	9.7		21.6	36.4	22.5				
Green Ext Time (p_c), s		1.1	0.0	3.2		0.7	0.0	0.0				

Intersection Summary		
HCM 6th Ctrl Delay		45.2
HCM 6th LOS		D

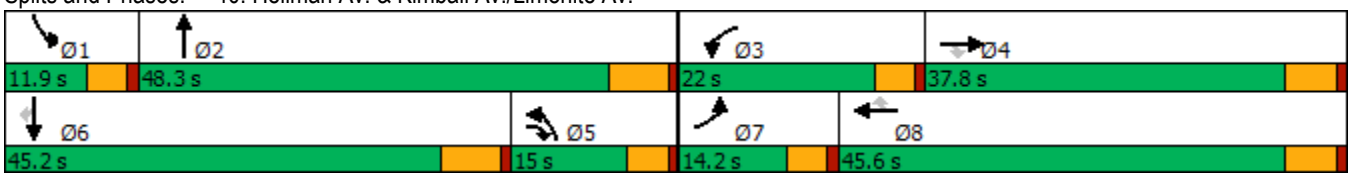
Notes

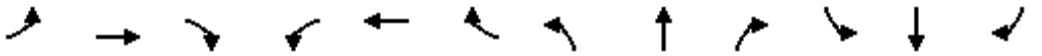
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	55	601	376	331	825	119	163	265	40	45	25
Future Volume (vph)	55	601	376	331	825	119	163	265	40	45	25
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	5	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	37.8	9.6	9.6	37.8	37.8	9.6	43.2	9.6	43.2	43.2
Total Split (s)	14.2	37.8	15.0	22.0	45.6	45.6	15.0	48.3	11.9	45.2	45.2
Total Split (%)	11.8%	31.5%	12.5%	18.3%	38.0%	38.0%	12.5%	40.3%	9.9%	37.7%	37.7%
Yellow Time (s)	3.6	4.8	3.6	3.6	4.8	4.8	3.6	5.2	3.6	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	4.6	5.8	5.8	4.6	6.2	4.6	6.2	6.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	Max	None	None	None	Max	Max	None	None	None
Act Effct Green (s)	7.7	25.2	61.2	15.3	35.2	35.2	33.7	42.9	6.5	15.0	15.0
Actuated g/C Ratio	0.07	0.24	0.57	0.14	0.33	0.33	0.32	0.40	0.06	0.14	0.14
v/c Ratio	0.47	0.74	0.36	0.78	0.73	0.19	0.17	0.40	0.40	0.09	0.07
Control Delay	64.1	44.2	2.1	58.2	37.0	2.3	34.1	14.6	64.3	40.6	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.1	44.2	2.1	58.2	37.0	2.3	34.1	14.6	64.3	40.6	0.4
LOS	E	D	A	E	D	A	C	B	E	D	A
Approach Delay		29.9			39.3			19.0		40.2	
Approach LOS		C			D			B		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 106.7	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 31.5	Intersection LOS: C
Intersection Capacity Utilization 65.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 40: Hellman Av. & Kimball Av./Limonite Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	601	376	331	825	119	163	265	298	40	45	25
Future Volume (veh/h)	55	601	376	331	825	119	163	265	298	40	45	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1700	1900	1900	1700	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	58	633	396	348	868	125	172	279	314	42	47	26
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	74	817	892	409	1132	505	1029	732	653	58	348	155
Arrive On Green	0.04	0.23	0.23	0.13	0.31	0.31	0.33	0.41	0.41	0.03	0.10	0.10
Sat Flow, veh/h	1714	3610	1610	3141	3610	1610	3141	1805	1610	1714	3610	1610
Grp Volume(v), veh/h	58	633	396	348	868	125	172	279	314	42	47	26
Grp Sat Flow(s),veh/h/ln	1714	1805	1610	1570	1805	1610	1570	1805	1610	1714	1805	1610
Q Serve(g_s), s	3.5	17.1	5.9	11.3	22.6	6.0	4.0	11.3	15.0	2.5	1.2	1.3
Cycle Q Clear(g_c), s	3.5	17.1	5.9	11.3	22.6	6.0	4.0	11.3	15.0	2.5	1.2	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	74	817	892	409	1132	505	1029	732	653	58	348	155
V/C Ratio(X)	0.79	0.77	0.44	0.85	0.77	0.25	0.17	0.38	0.48	0.72	0.14	0.17
Avail Cap(c_a), veh/h	158	1112	1024	526	1384	617	1029	732	653	121	1356	605
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.2	37.7	3.8	44.2	32.2	26.5	24.8	21.7	22.8	49.7	43.0	30.2
Incr Delay (d2), s/veh	6.8	2.4	0.3	8.4	2.1	0.3	0.4	1.5	2.5	6.2	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	7.5	2.2	4.7	9.6	2.2	1.5	4.7	5.7	1.1	0.5	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.0	40.1	4.1	52.5	34.3	26.8	25.2	23.2	25.3	55.9	43.1	30.7
LnGrp LOS	E	D	A	D	C	C	C	C	C	E	D	C
Approach Vol, veh/h		1087			1341			765			115	
Approach Delay, s/veh		27.8			38.3			24.5			45.0	
Approach LOS		C			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	48.3	18.1	29.3	40.2	16.2	9.1	38.4
Change Period (Y+Rc), s	4.6	6.2	4.6	5.8	6.2	* 6.2	4.6	5.8
Max Green Setting (Gmax), s	7.3	42.1	17.4	32.0	10.4	* 39	9.6	39.8
Max Q Clear Time (g_c+I1), s	4.5	17.0	13.3	19.1	6.0	3.3	5.5	24.6
Green Ext Time (p_c), s	0.0	3.4	0.3	4.4	0.1	0.3	0.0	5.3

Intersection Summary	
HCM 6th Ctrl Delay	31.9
HCM 6th LOS	C

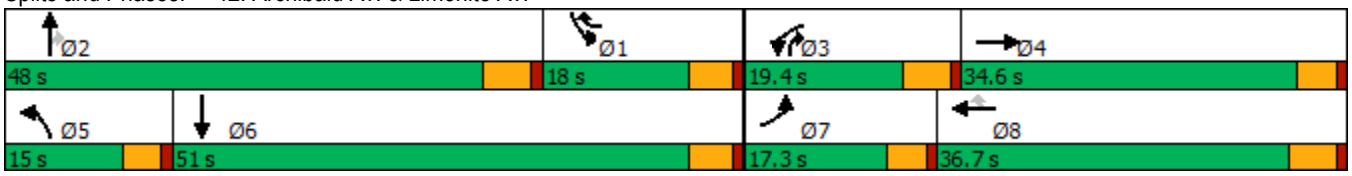
Notes

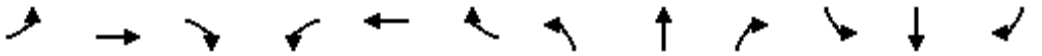
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	215	570	366	818	656	149	1108	372	406	766
Future Volume (vph)	215	570	366	818	656	149	1108	372	406	766
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	3	8	1	5	2	3	1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	1	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	6.0	6.0	6.0	6.0	5.0	6.0	6.0	6.0	6.0
Minimum Split (s)	9.6	34.6	11.3	36.3	11.0	9.5	46.3	11.3	11.0	43.0
Total Split (s)	17.3	34.6	19.4	36.7	18.0	15.0	48.0	19.4	18.0	51.0
Total Split (%)	14.4%	28.8%	16.2%	30.6%	15.0%	12.5%	40.0%	16.2%	15.0%	42.5%
Yellow Time (s)	3.6	3.6	4.3	4.3	4.0	3.5	4.3	4.3	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-0.6	-1.3	-1.3	-1.0	-0.5	-1.3	-1.3	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Max	None	None	None	Max	Max
Act Effct Green (s)	12.3	28.1	15.1	30.9	52.6	11.0	36.3	51.4	21.7	47.1
Actuated g/C Ratio	0.10	0.24	0.13	0.26	0.45	0.09	0.31	0.44	0.18	0.40
v/c Ratio	0.62	0.82	0.86	0.89	0.92	0.96	0.68	0.54	0.66	0.46
Control Delay	58.1	49.6	69.0	53.5	38.7	112.9	37.3	13.0	51.6	25.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.1	49.6	69.0	53.5	38.7	112.9	37.3	13.0	51.6	25.3
LOS	E	D	E	D	D	F	D	B	D	C
Approach Delay		51.6		51.3			38.7			33.1
Approach LOS		D		D			D			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 117.3	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 43.4	Intersection LOS: D
Intersection Capacity Utilization 78.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 42: Archibald Av. & Limonite Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	215	570	113	366	818	656	149	1108	372	406	766	193
Future Volume (veh/h)	215	570	113	366	818	656	149	1108	372	406	766	193
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	234	620	123	398	889	654	162	1204	355	441	833	210
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	315	717	142	475	1074	754	170	1723	698	694	1762	441
Arrive On Green	0.09	0.23	0.23	0.13	0.28	0.28	0.09	0.30	0.30	0.19	0.40	0.39
Sat Flow, veh/h	3619	3080	610	3619	3800	1590	1810	5700	1610	3619	4401	1101
Grp Volume(v), veh/h	234	382	361	398	889	654	162	1204	355	441	718	325
Grp Sat Flow(s),veh/h/ln	1810	1900	1790	1810	1900	1590	1810	1900	1610	1810	1900	1702
Q Serve(g_s), s	7.4	22.7	22.8	12.6	25.7	13.1	10.5	21.9	8.7	13.2	16.4	16.7
Cycle Q Clear(g_c), s	7.4	22.7	22.8	12.6	25.7	13.1	10.5	21.9	8.7	13.2	16.4	16.7
Prop In Lane	1.00		0.34	1.00		1.00	1.00		1.00	1.00		0.65
Lane Grp Cap(c), veh/h	315	442	416	475	1074	754	170	1723	698	694	1521	681
V/C Ratio(X)	0.74	0.86	0.87	0.84	0.83	0.87	0.96	0.70	0.51	0.64	0.47	0.48
Avail Cap(c_a), veh/h	410	495	467	475	1074	754	170	2136	815	694	1521	681
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.3	43.3	43.4	49.8	39.4	13.0	53.0	36.2	8.6	43.7	26.0	26.4
Incr Delay (d2), s/veh	5.1	13.6	14.6	11.9	5.2	10.1	55.5	0.9	0.7	4.4	1.1	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	11.9	11.4	6.3	12.1	9.7	7.2	9.8	3.3	6.0	7.1	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.4	56.9	58.0	61.7	44.6	23.1	108.5	37.1	9.3	48.1	27.1	28.7
LnGrp LOS	E	E	E	E	D	C	F	D	A	D	C	C
Approach Vol, veh/h		977			1941			1721			1484	
Approach Delay, s/veh		57.4			40.9			38.1			33.7	
Approach LOS		E			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.5	39.5	19.4	32.0	15.0	51.0	14.2	37.2
Change Period (Y+Rc), s	5.0	5.3	5.3	* 5.3	4.5	5.0	4.6	5.3
Max Green Setting (Gmax), s	13.0	42.7	14.1	* 30	10.5	46.0	12.7	31.4
Max Q Clear Time (g_c+I1), s	15.2	23.9	14.6	24.8	12.5	18.7	9.4	27.7
Green Ext Time (p_c), s	0.0	10.2	0.0	1.9	0.0	4.0	0.2	1.6

Intersection Summary	
HCM 6th Ctrl Delay	41.0
HCM 6th LOS	D

Notes

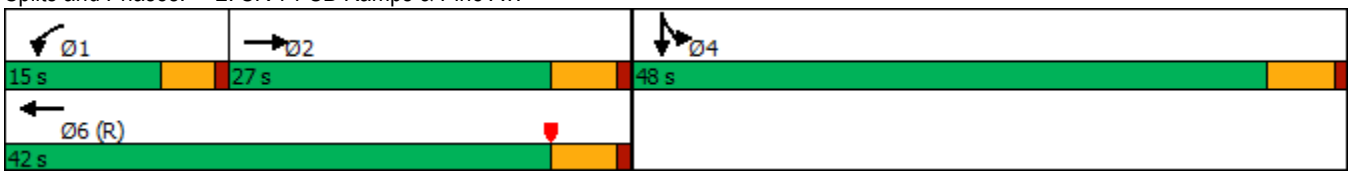
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

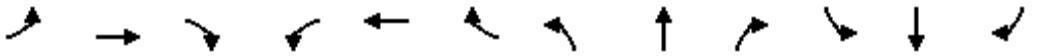
Lane Group	EBT	WBL	WBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	443	173	519	819	8
Future Volume (vph)	443	173	519	819	8
Turn Type	NA	Prot	NA	Split	NA
Protected Phases	2	1	6	4	4
Permitted Phases					
Detector Phase	2	1	6	4	4
Switch Phase					
Minimum Initial (s)	8.0	5.0	5.0	5.0	5.0
Minimum Split (s)	25.5	9.6	25.5	37.5	37.5
Total Split (s)	27.0	15.0	42.0	48.0	48.0
Total Split (%)	30.0%	16.7%	46.7%	53.3%	53.3%
Yellow Time (s)	4.5	3.6	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	4.6	5.5	5.5	5.5
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	None	None	C-Max	Max	Max

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 2: SR-71 SB Ramps & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	443	45	173	519	0	0	0	0	819	8	557
Future Volume (veh/h)	0	443	45	173	519	0	0	0	0	819	8	557
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	466	23	182	546	0				600	375	329
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	836	41	209	1464	0				854	441	387
Arrive On Green	0.00	0.24	0.24	0.12	0.41	0.00				0.47	0.47	0.47
Sat Flow, veh/h	0	3596	172	1810	3705	0				1810	934	819
Grp Volume(v), veh/h	0	240	249	182	546	0				600	0	704
Grp Sat Flow(s),veh/h/ln	0	1805	1869	1810	1805	0				1810	0	1753
Q Serve(g_s), s	0.0	10.5	10.5	8.9	9.5	0.0				23.6	0.0	31.9
Cycle Q Clear(g_c), s	0.0	10.5	10.5	8.9	9.5	0.0				23.6	0.0	31.9
Prop In Lane	0.00		0.09	1.00		0.00				1.00		0.47
Lane Grp Cap(c), veh/h	0	431	446	209	1464	0				854	0	828
V/C Ratio(X)	0.00	0.56	0.56	0.87	0.37	0.00				0.70	0.00	0.85
Avail Cap(c_a), veh/h	0	431	446	209	1464	0				854	0	828
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.94	0.94	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	30.1	30.1	39.1	18.7	0.0				18.8	0.0	21.0
Incr Delay (d2), s/veh	0.0	1.6	1.6	28.9	0.7	0.0				4.8	0.0	10.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.5	4.7	5.5	3.8	0.0				10.4	0.0	14.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	31.6	31.6	68.1	19.4	0.0				23.5	0.0	31.6
LnGrp LOS	A	C	C	E	B	A				C	A	C
Approach Vol, veh/h		489			728						1304	
Approach Delay, s/veh		31.6			31.6						27.9	
Approach LOS		C			C						C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	15.0	27.0		48.0		42.0
Change Period (Y+Rc), s	4.6	5.5		5.5		5.5
Max Green Setting (Gmax), s	10.4	21.5		42.5		36.5
Max Q Clear Time (g_c+I1), s	10.9	12.5		33.9		11.5
Green Ext Time (p_c), s	0.0	1.8		4.6		3.5

Intersection Summary		
HCM 6th Ctrl Delay		29.7
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

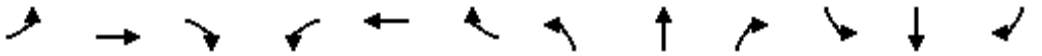
Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	360	902	569	556	3	252
Future Volume (vph)	360	902	569	556	3	252
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	5	2	6		8	
Permitted Phases				6		8
Detector Phase	5	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	5.0	8.0	8.0	8.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	10.5	10.5
Total Split (s)	18.0	60.0	42.0	42.0	20.0	20.0
Total Split (%)	22.5%	75.0%	52.5%	52.5%	25.0%	25.0%
Yellow Time (s)	3.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	Max

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 5: SR-71 NB Ramps & Pine Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	360	902	0	0	569	556	123	3	252	0	0	0
Future Volume (veh/h)	360	902	0	0	569	556	123	3	252	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	419	980	0	0	618	604	143	99	210			
Peak Hour Factor	0.86	0.92	0.86	0.92	0.92	0.92	0.86	0.86	0.92			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	511	1294	0	0	1731	772	198	137	292			
Arrive On Green	0.15	0.68	0.00	0.00	0.48	0.48	0.18	0.18	0.18			
Sat Flow, veh/h	3510	1900	0	0	3705	1610	1091	755	1610			
Grp Volume(v), veh/h	419	980	0	0	618	604	242	0	210			
Grp Sat Flow(s),veh/h/ln	1755	1900	0	0	1805	1610	1845	0	1610			
Q Serve(g_s), s	9.3	27.2	0.0	0.0	8.6	25.0	9.9	0.0	9.8			
Cycle Q Clear(g_c), s	9.3	27.2	0.0	0.0	8.6	25.0	9.9	0.0	9.8			
Prop In Lane	1.00		0.00	0.00		1.00	0.59		1.00			
Lane Grp Cap(c), veh/h	511	1294	0	0	1731	772	334	0	292			
V/C Ratio(X)	0.82	0.76	0.00	0.00	0.36	0.78	0.72	0.00	0.72			
Avail Cap(c_a), veh/h	592	1294	0	0	1731	772	334	0	292			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.49	0.49	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	33.2	8.4	0.0	0.0	13.1	17.3	30.9	0.0	30.8			
Incr Delay (d2), s/veh	4.1	2.1	0.0	0.0	0.6	7.8	12.8	0.0	14.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.0	8.3	0.0	0.0	3.2	9.6	5.4	0.0	4.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.2	10.5	0.0	0.0	13.6	25.1	43.6	0.0	45.1			
LnGrp LOS	D	B	A	A	B	C	D	A	D			
Approach Vol, veh/h		1399			1222			452				
Approach Delay, s/veh		18.5			19.3			44.3				
Approach LOS		B			B			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		60.0			16.1	43.9		20.0				
Change Period (Y+Rc), s		5.5			4.5	5.5		5.5				
Max Green Setting (Gmax), s		54.5			13.5	36.5		14.5				
Max Q Clear Time (g_c+I1), s		29.2			11.3	27.0		11.9				
Green Ext Time (p_c), s		8.2			0.4	4.4		0.6				
Intersection Summary												
HCM 6th Ctrl Delay			22.6									
HCM 6th LOS			C									

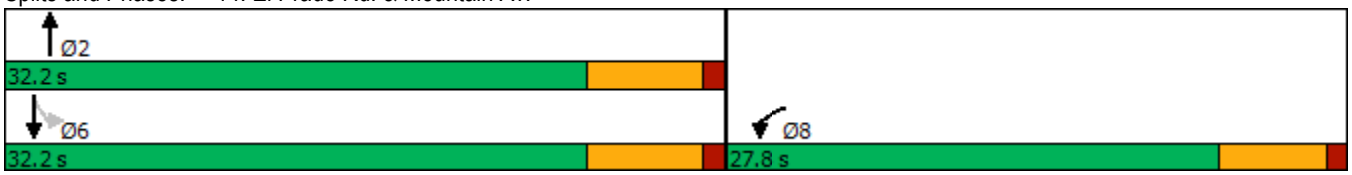
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	207	128	43	529
Future Volume (vph)	207	128	43	529
Turn Type	Prot	NA	Perm	NA
Protected Phases	8	2		6
Permitted Phases			6	
Detector Phase	8	2	6	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	10.0
Minimum Split (s)	27.8	28.2	16.2	16.2
Total Split (s)	27.8	32.2	32.2	32.2
Total Split (%)	46.3%	53.7%	53.7%	53.7%
Yellow Time (s)	4.8	5.2	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	5.8	6.2		6.2
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	Min	Min	Min

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 49.4
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 14: El Prado Rd. & Mountain Av.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	207	19	128	114	43	529
Future Volume (veh/h)	207	19	128	114	43	529
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	0.98		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1800	1900	1900	1900	1800	1900
Adj Flow Rate, veh/h	241	22	149	133	50	615
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	378	35	410	366	134	785
Arrive On Green	0.24	0.24	0.44	0.44	0.44	0.44
Sat Flow, veh/h	1546	141	925	826	76	1771
Grp Volume(v), veh/h	264	0	0	282	665	0
Grp Sat Flow(s),veh/h/ln	1694	0	0	1751	1847	0
Q Serve(g_s), s	5.4	0.0	0.0	4.1	4.3	0.0
Cycle Q Clear(g_c), s	5.4	0.0	0.0	4.1	11.9	0.0
Prop In Lane	0.91	0.08		0.47	0.08	
Lane Grp Cap(c), veh/h	414	0	0	777	920	0
V/C Ratio(X)	0.64	0.00	0.00	0.36	0.72	0.00
Avail Cap(c_a), veh/h	969	0	0	1184	1339	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.0	0.0	0.0	7.1	9.2	0.0
Incr Delay (d2), s/veh	1.6	0.0	0.0	0.3	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	0.0	0.8	2.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	14.6	0.0	0.0	7.4	10.3	0.0
LnGrp LOS	B	A	A	A	B	A
Approach Vol, veh/h	264		282			665
Approach Delay, s/veh	14.6		7.4			10.3
Approach LOS	B		A			B

Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		23.3			23.3	15.2
Change Period (Y+Rc), s		6.2			6.2	5.8
Max Green Setting (Gmax), s		26.0			26.0	22.0
Max Q Clear Time (g_c+I1), s		6.1			13.9	7.4
Green Ext Time (p_c), s		1.4			3.2	0.6

Intersection Summary	
HCM 6th Ctrl Delay	10.6
HCM 6th LOS	B

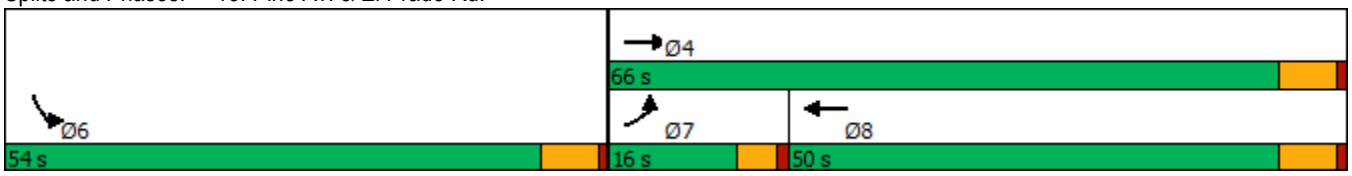
Notes

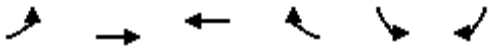
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	92	1233	1046	564
Future Volume (vph)	92	1233	1046	564
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	28.2	33.2
Total Split (s)	16.0	66.0	50.0	54.0
Total Split (%)	13.3%	55.0%	41.7%	45.0%
Yellow Time (s)	3.6	5.2	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	6.2
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 118.6
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 15: Pine Av. & El Prado Rd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	92	1233	1046	150	564	173
Future Volume (veh/h)	92	1233	1046	150	564	173
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1900	1976	1900
Adj Flow Rate, veh/h	100	1340	1137	163	613	188
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	123	1750	1184	169	572	175
Arrive On Green	0.07	0.48	0.37	0.37	0.41	0.41
Sat Flow, veh/h	1714	3705	3265	453	1398	429
Grp Volume(v), veh/h	100	1340	646	654	802	0
Grp Sat Flow(s),veh/h/ln	1714	1805	1805	1818	1829	0
Q Serve(g_s), s	6.7	35.5	40.8	41.1	47.8	0.0
Cycle Q Clear(g_c), s	6.7	35.5	40.8	41.1	47.8	0.0
Prop In Lane	1.00			0.25	0.76	0.23
Lane Grp Cap(c), veh/h	123	1750	674	679	748	0
V/C Ratio(X)	0.81	0.77	0.96	0.96	1.07	0.00
Avail Cap(c_a), veh/h	167	1848	677	682	748	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	53.4	24.7	35.7	35.8	34.5	0.0
Incr Delay (d2), s/veh	14.0	1.9	24.7	25.6	53.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	14.2	21.3	21.7	30.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	67.4	26.6	60.4	61.4	88.3	0.0
LnGrp LOS	E	C	E	E	F	A
Approach Vol, veh/h		1440	1300		802	
Approach Delay, s/veh		29.4	60.9		88.3	
Approach LOS		C	E		F	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	62.8	54.0	13.0	49.8
Change Period (Y+Rc), s	6.2	6.2	4.6	6.2
Max Green Setting (Gmax), s	59.8	47.8	11.4	43.8
Max Q Clear Time (g_c+I1), s	37.5	49.8	8.7	43.1
Green Ext Time (p_c), s	9.5	0.0	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	54.3
HCM 6th LOS	D

Notes

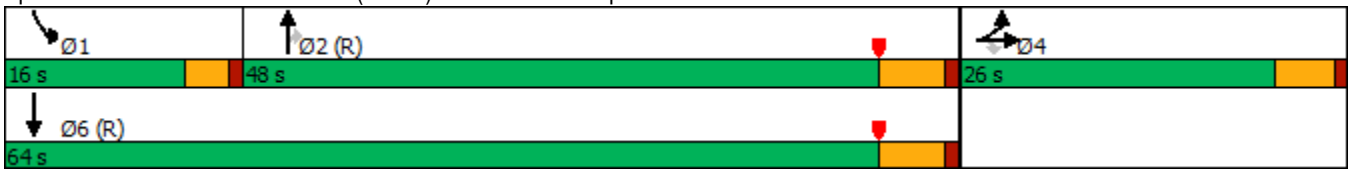
User approved volume balancing among the lanes for turning movement.

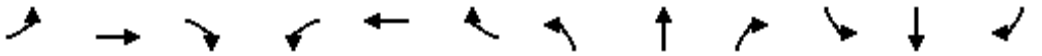
Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	505	4	540	1444	793	458	1568
Future Volume (vph)	505	4	540	1444	793	458	1568
Turn Type	Split	NA	Perm	NA	Perm	Prot	NA
Protected Phases	4	4		2		1	6
Permitted Phases			4		2		
Detector Phase	4	4	4	2	2	1	6
Switch Phase							
Minimum Initial (s)	6.0	6.0	6.0	10.0	10.0	5.0	10.0
Minimum Split (s)	11.0	11.0	11.0	22.5	22.5	9.0	22.5
Total Split (s)	26.0	26.0	26.0	48.0	48.0	16.0	64.0
Total Split (%)	28.9%	28.9%	28.9%	53.3%	53.3%	17.8%	71.1%
Yellow Time (s)	4.0	4.0	4.0	4.5	4.5	3.0	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.5	5.5	4.0	5.5
Lead/Lag				Lag	Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	
Recall Mode	None	None	None	C-Min	C-Min	None	C-Min
Act Effct Green (s)	20.6	20.6	20.6	42.5	42.5	12.4	58.9
Actuated g/C Ratio	0.23	0.23	0.23	0.47	0.47	0.14	0.65
v/c Ratio	0.95	0.93	0.83	0.86	0.73	0.97	0.68
Control Delay	69.5	63.0	43.9	28.0	7.5	64.6	5.0
Queue Delay	46.7	48.0	0.0	0.0	0.0	0.0	1.5
Total Delay	116.2	111.0	43.9	28.0	7.5	64.6	6.6
LOS	F	F	D	C	A	E	A
Approach Delay		91.4		20.7			19.7
Approach LOS		F		C			B

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.97
Intersection Signal Delay: 34.3 — Intersection LOS: C
Intersection Capacity Utilization 139.5% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 20: Euclid Av. (SR-83) & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	505	4	540	0	0	0	0	1444	793	458	1568	0
Future Volume (veh/h)	505	4	540	0	0	0	0	1444	793	458	1568	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	667	0	324				0	1473	615	467	1600	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	806	0	359				0	1743	767	468	2385	0
Arrive On Green	0.22	0.00	0.22				0.00	0.48	0.48	0.27	1.00	0.00
Sat Flow, veh/h	3619	0	1610				0	3705	1588	3510	3705	0
Grp Volume(v), veh/h	667	0	324				0	1473	615	467	1600	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1805	1588	1755	1805	0
Q Serve(g_s), s	15.8	0.0	17.6				0.0	32.1	29.4	12.0	0.0	0.0
Cycle Q Clear(g_c), s	15.8	0.0	17.6				0.0	32.1	29.4	12.0	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	806	0	359				0	1743	767	468	2385	0
V/C Ratio(X)	0.83	0.00	0.90				0.00	0.85	0.80	1.00	0.67	0.00
Avail Cap(c_a), veh/h	844	0	376				0	1743	767	468	2385	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.12	0.12	0.25	0.25	0.00
Uniform Delay (d), s/veh	33.3	0.0	34.0				0.0	20.3	19.6	33.0	0.0	0.0
Incr Delay (d2), s/veh	6.1	0.0	23.0				0.0	0.7	1.1	20.2	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	0.0	8.7				0.0	12.1	9.9	5.4	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.4	0.0	57.0				0.0	21.0	20.8	53.2	0.4	0.0
LnGrp LOS	D	A	E				A	C	C	D	A	A
Approach Vol, veh/h		991						2088			2067	
Approach Delay, s/veh		45.2						20.9			12.3	
Approach LOS		D						C			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	16.0	49.0		25.0		65.0
Change Period (Y+Rc), s	4.0	5.5		5.0		5.5
Max Green Setting (Gmax), s	12.0	42.5		21.0		58.5
Max Q Clear Time (g_c+I1), s	14.0	34.1		19.6		2.0
Green Ext Time (p_c), s	0.0	7.5		0.4		28.1

Intersection Summary		
HCM 6th Ctrl Delay		22.1
HCM 6th LOS		C

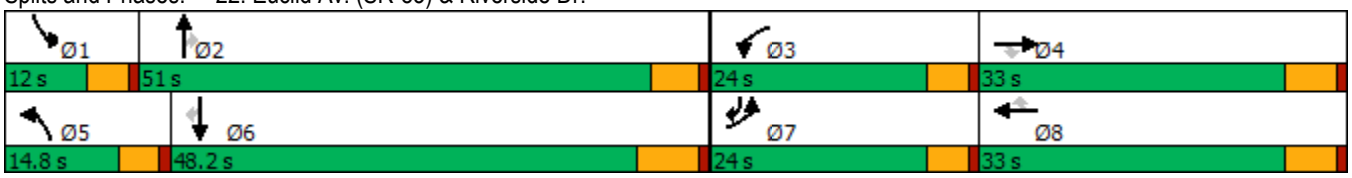
Notes

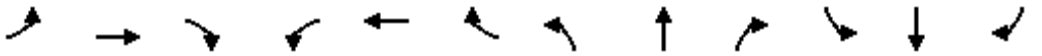
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	234	721	199	229	499	78	200	1693	295	169	1334	345
Future Volume (vph)	234	721	199	229	499	78	200	1693	295	169	1334	345
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	25.8	25.8	9.6	31.8	31.8	9.6	30.4	30.4	9.6	34.5	9.6
Total Split (s)	24.0	33.0	33.0	24.0	33.0	33.0	14.8	51.0	51.0	12.0	48.2	24.0
Total Split (%)	20.0%	27.5%	27.5%	20.0%	27.5%	27.5%	12.3%	42.5%	42.5%	10.0%	40.2%	20.0%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	None
Act Effct Green (s)	18.5	26.7	26.7	18.4	26.6	26.6	9.8	45.6	45.6	7.4	42.1	62.6
Actuated g/C Ratio	0.16	0.23	0.23	0.16	0.22	0.22	0.08	0.38	0.38	0.06	0.35	0.53
v/c Ratio	0.91	0.92	0.42	0.90	0.64	0.18	0.76	0.88	0.40	0.85	0.76	0.41
Control Delay	86.6	63.0	12.9	84.4	46.0	3.5	71.8	40.7	7.2	89.2	37.2	13.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.6	63.0	12.9	84.4	46.0	3.5	71.8	40.7	7.2	89.2	37.2	13.2
LOS	F	E	B	F	D	A	E	D	A	F	D	B
Approach Delay		59.2			52.8			39.1			37.5	
Approach LOS		E			D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 118.6	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 44.3	Intersection LOS: D
Intersection Capacity Utilization 88.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 22: Euclid Av. (SR-83) & Riverside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	721	199	229	499	78	200	1693	295	169	1334	345
Future Volume (veh/h)	234	721	199	229	499	78	200	1693	295	169	1334	345
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	244	751	182	239	520	65	208	1764	253	176	1390	268
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	269	809	361	264	799	356	261	1974	613	205	1888	831
Arrive On Green	0.16	0.22	0.22	0.15	0.22	0.22	0.08	0.38	0.38	0.06	0.36	0.36
Sat Flow, veh/h	1714	3610	1610	1714	3610	1608	3326	5187	1610	3326	5187	1590
Grp Volume(v), veh/h	244	751	182	239	520	65	208	1764	253	176	1390	268
Grp Sat Flow(s),veh/h/ln	1714	1805	1610	1714	1805	1608	1663	1729	1610	1663	1729	1590
Q Serve(g_s), s	16.8	24.4	11.8	16.4	15.7	3.9	7.4	38.2	13.8	6.3	27.9	11.6
Cycle Q Clear(g_c), s	16.8	24.4	11.8	16.4	15.7	3.9	7.4	38.2	13.8	6.3	27.9	11.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	269	809	361	264	799	356	261	1974	613	205	1888	831
V/C Ratio(X)	0.91	0.93	0.50	0.91	0.65	0.18	0.80	0.89	0.41	0.86	0.74	0.32
Avail Cap(c_a), veh/h	278	820	366	278	820	365	283	1974	613	205	1888	831
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.7	45.5	40.7	49.8	42.4	37.8	54.3	34.8	27.3	55.7	33.1	16.5
Incr Delay (d2), s/veh	29.8	16.5	1.1	28.9	1.8	0.2	12.3	6.7	2.0	27.2	2.6	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	12.4	4.7	8.9	7.0	1.5	3.4	16.0	5.5	3.4	11.7	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.5	62.0	41.7	78.7	44.2	38.1	66.6	41.5	29.3	82.8	35.7	17.6
LnGrp LOS	E	E	D	E	D	D	E	D	C	F	D	B
Approach Vol, veh/h		1177			824			2225			1834	
Approach Delay, s/veh		62.5			53.7			42.5			37.6	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	52.1	23.1	32.7	14.0	50.1	23.4	32.3
Change Period (Y+Rc), s	4.6	* 6.5	4.6	5.8	4.6	6.5	4.6	5.8
Max Green Setting (Gmax), s	7.4	* 46	19.4	27.2	10.2	41.7	19.4	27.2
Max Q Clear Time (g_c+I1), s	8.3	40.2	18.4	26.4	9.4	29.9	18.8	17.7
Green Ext Time (p_c), s	0.0	4.3	0.0	0.4	0.0	7.5	0.0	2.3

Intersection Summary	
HCM 6th Ctrl Delay	46.4
HCM 6th LOS	D

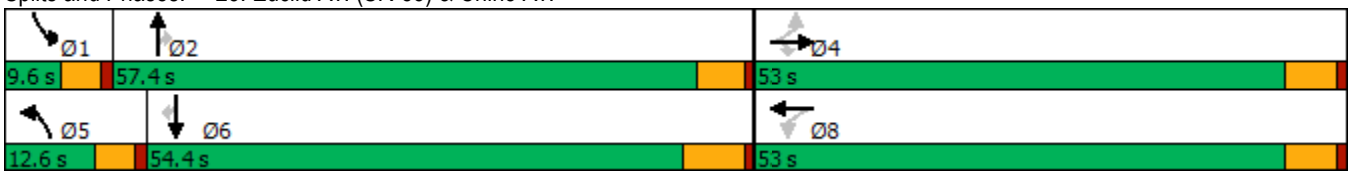
Notes

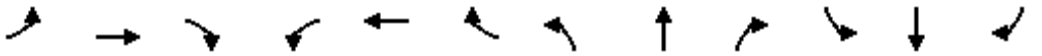
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	134	487	69	137	223	68	1992	278	35	1511	87
Future Volume (vph)	134	487	69	137	223	68	1992	278	35	1511	87
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4			8	5	2		1	6	
Permitted Phases	4		4	8				2			6
Detector Phase	4	4	4	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	28.8	28.8	28.8	33.8	33.8	9.6	24.2	24.2	9.6	31.5	31.5
Total Split (s)	53.0	53.0	53.0	53.0	53.0	12.6	57.4	57.4	9.6	54.4	54.4
Total Split (%)	44.2%	44.2%	44.2%	44.2%	44.2%	10.5%	47.8%	47.8%	8.0%	45.3%	45.3%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	3.6	4.2	4.2	3.6	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	4.6	5.2	5.2	4.6	6.5	6.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	Max	Max
Act Effct Green (s)	43.4	43.4	43.4	43.4	43.4	7.5	52.7	52.7	5.1	49.1	49.1
Actuated g/C Ratio	0.38	0.38	0.38	0.38	0.38	0.07	0.46	0.46	0.04	0.43	0.43
v/c Ratio	0.41	0.73	0.11	1.02	0.36	0.66	0.90	0.39	0.51	0.73	0.13
Control Delay	30.7	37.5	5.7	117.4	26.9	81.5	36.2	18.8	79.4	31.3	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.7	37.5	5.7	117.4	26.9	81.5	36.2	18.8	79.4	31.3	6.1
LOS	C	D	A	F	C	F	D	B	E	C	A
Approach Delay		33.0			59.7		35.4			31.0	
Approach LOS		C			E		D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 114.6	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 35.5	Intersection LOS: D
Intersection Capacity Utilization 94.5%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 23: Euclid Av. (SR-83) & Chino Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	487	69	137	223	18	68	1992	278	35	1511	87
Future Volume (veh/h)	134	487	69	137	223	18	68	1992	278	35	1511	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	144	524	51	147	240	15	73	2142	228	38	1625	61
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	401	748	634	199	697	44	92	2258	686	51	2135	649
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.05	0.44	0.44	0.03	0.41	0.41
Sat Flow, veh/h	1142	1900	1610	851	1769	111	1714	5187	1577	1714	5187	1577
Grp Volume(v), veh/h	144	524	51	147	0	255	73	2142	228	38	1625	61
Grp Sat Flow(s),veh/h/ln	1142	1900	1610	851	0	1880	1714	1729	1577	1714	1729	1577
Q Serve(g_s), s	12.1	27.7	2.4	19.5	0.0	11.4	5.0	47.6	11.4	2.6	32.2	2.8
Cycle Q Clear(g_c), s	23.5	27.7	2.4	47.2	0.0	11.4	5.0	47.6	11.4	2.6	32.2	2.8
Prop In Lane	1.00		1.00	1.00		0.06	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	401	748	634	199	0	740	92	2258	686	51	2135	649
V/C Ratio(X)	0.36	0.70	0.08	0.74	0.00	0.34	0.79	0.95	0.33	0.74	0.76	0.09
Avail Cap(c_a), veh/h	401	748	634	199	0	740	114	2258	686	71	2135	649
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.7	30.4	22.8	50.7	0.0	25.5	56.1	32.6	22.3	57.7	30.2	21.6
Incr Delay (d2), s/veh	0.5	2.9	0.1	13.7	0.0	0.3	20.6	10.2	1.3	12.5	2.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	12.6	0.9	5.1	0.0	5.0	2.6	20.1	4.2	1.3	12.8	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.3	33.3	22.8	64.4	0.0	25.8	76.7	42.7	23.6	70.2	32.8	21.9
LnGrp LOS	C	C	C	E	A	C	E	D	C	E	C	C
Approach Vol, veh/h		719			402			2443			1724	
Approach Delay, s/veh		32.8			39.9			42.0			33.3	
Approach LOS		C			D			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.2	58.7		53.0	11.0	55.9		53.0				
Change Period (Y+Rc), s	4.6	* 6.5		5.8	4.6	6.5		5.8				
Max Green Setting (Gmax), s	5.0	* 52		47.2	8.0	47.9		47.2				
Max Q Clear Time (g_c+I1), s	4.6	49.6		29.7	7.0	34.2		49.2				
Green Ext Time (p_c), s	0.0	2.4		3.5	0.0	8.5		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		37.7
HCM 6th LOS		D

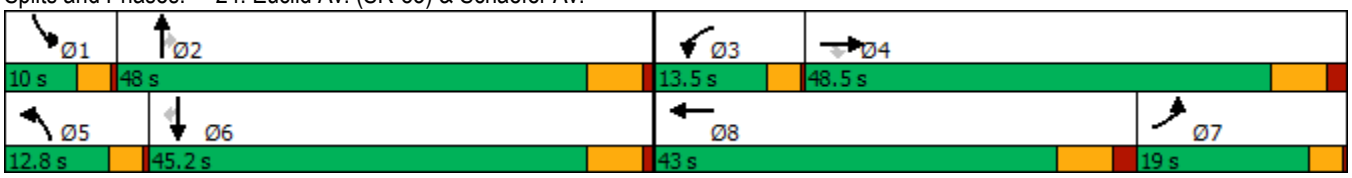
Notes

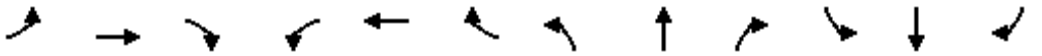
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	487	463	264	95	158	239	1921	100	199	1544	455
Future Volume (vph)	487	463	264	95	158	239	1921	100	199	1544	455
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.5	42.0	42.0	13.5	43.0	8.5	33.0	33.0	8.5	28.0	28.0
Total Split (s)	19.0	48.5	48.5	13.5	43.0	12.8	48.0	48.0	10.0	45.2	45.2
Total Split (%)	15.8%	40.4%	40.4%	11.3%	35.8%	10.7%	40.0%	40.0%	8.3%	37.7%	37.7%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	7.0	7.0	3.5	7.0	3.5	6.0	6.0	3.5	6.0	6.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	21.9	31.7	31.7	10.0	19.9	9.3	42.2	42.2	6.5	39.4	39.4
Actuated g/C Ratio	0.20	0.29	0.29	0.09	0.18	0.08	0.38	0.38	0.06	0.36	0.36
v/c Ratio	0.75	0.86	0.46	0.62	0.69	0.86	0.98	0.14	1.03	0.85	0.61
Control Delay	50.9	53.2	13.7	68.5	48.5	79.3	50.9	0.8	124.3	38.9	16.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.9	53.2	13.7	68.5	48.5	79.3	50.9	0.8	124.3	38.9	16.1
LOS	D	D	B	E	D	E	D	A	F	D	B
Approach Delay		43.7			54.3		51.7			41.9	
Approach LOS		D			D		D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 110.6	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 46.6	Intersection LOS: D
Intersection Capacity Utilization 93.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 24: Euclid Av. (SR-83) & Schaefer Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	487	463	264	95	158	73	239	1921	100	199	1544	455
Future Volume (veh/h)	487	463	264	95	158	73	239	1921	100	199	1544	455
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	492	468	226	96	160	69	241	1940	83	201	1560	430
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	603	526	445	150	190	82	287	2020	627	201	1885	585
Arrive On Green	0.18	0.28	0.28	0.09	0.15	0.15	0.09	0.39	0.39	0.06	0.36	0.36
Sat Flow, veh/h	3326	1900	1610	1714	1259	543	3326	5187	1610	3326	5187	1610
Grp Volume(v), veh/h	492	468	226	96	0	229	241	1940	83	201	1560	430
Grp Sat Flow(s),veh/h/ln	1663	1900	1610	1714	0	1802	1663	1729	1610	1663	1729	1610
Q Serve(g_s), s	15.3	25.4	12.7	5.8	0.0	13.3	7.7	39.3	3.6	6.5	29.5	13.1
Cycle Q Clear(g_c), s	15.3	25.4	12.7	5.8	0.0	13.3	7.7	39.3	3.6	6.5	29.5	13.1
Prop In Lane	1.00		1.00	1.00		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	603	526	445	150	0	271	287	2020	627	201	1885	585
V/C Ratio(X)	0.82	0.89	0.51	0.64	0.00	0.84	0.84	0.96	0.13	1.00	0.83	0.73
Avail Cap(c_a), veh/h	603	733	621	159	0	603	287	2024	628	201	1889	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.3	37.4	32.8	47.5	0.0	44.5	48.4	32.0	21.1	50.6	31.2	8.2
Incr Delay (d2), s/veh	8.0	9.2	0.7	5.5	0.0	5.3	18.3	12.0	0.1	63.7	3.2	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	12.6	4.8	2.6	0.0	6.1	3.8	17.0	1.3	4.3	11.7	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.3	46.6	33.4	53.0	0.0	49.8	66.7	44.1	21.2	114.3	34.4	13.0
LnGrp LOS	D	D	C	D	A	D	E	D	C	F	C	B
Approach Vol, veh/h		1186			325			2264			2191	
Approach Delay, s/veh		45.6			50.8			45.6			37.5	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	47.9	12.9	36.8	12.8	45.1	26.5	23.2
Change Period (Y+Rc), s	3.5	6.0	3.5	7.0	3.5	6.0	7.0	* 7
Max Green Setting (Gmax), s	6.5	42.0	10.0	41.5	9.3	39.2	15.5	* 36
Max Q Clear Time (g_c+I1), s	8.5	41.3	7.8	27.4	9.7	31.5	17.3	15.3
Green Ext Time (p_c), s	0.0	0.7	0.0	2.3	0.0	5.8	0.0	0.9

Intersection Summary	
HCM 6th Ctrl Delay	42.9
HCM 6th LOS	D

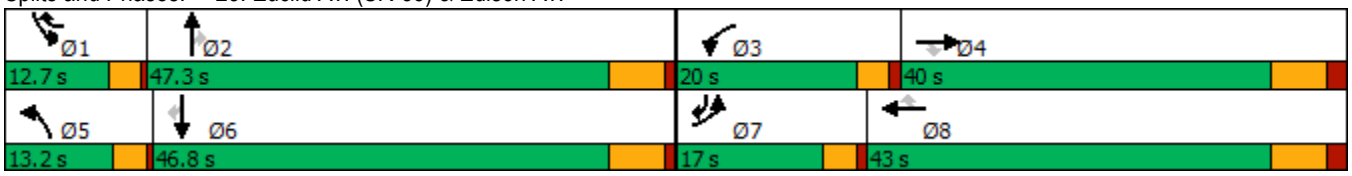
Notes

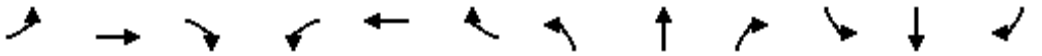
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	334	1195	377	428	723	340	223	1771	281	201	1611	220
Future Volume (vph)	334	1195	377	428	723	340	223	1771	281	201	1611	220
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4		3	8	1	5	2		1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	1	5	2	2	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.0	39.5	39.5	9.0	43.0	8.5	8.5	29.0	29.0	8.5	38.5	9.0
Total Split (s)	17.0	40.0	40.0	20.0	43.0	12.7	13.2	47.3	47.3	12.7	46.8	17.0
Total Split (%)	14.2%	33.3%	33.3%	16.7%	35.8%	10.6%	11.0%	39.4%	39.4%	10.6%	39.0%	14.2%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	3.0	3.0	5.0	5.0	3.0	5.0	3.0
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0	0.5	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	7.0	7.0	4.0	7.0	3.5	3.5	6.0	6.0	3.5	6.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	None
Act Effct Green (s)	13.0	32.3	32.3	16.0	35.3	48.0	9.7	41.3	41.3	9.2	40.8	59.8
Actuated g/C Ratio	0.11	0.27	0.27	0.13	0.30	0.40	0.08	0.35	0.35	0.08	0.34	0.50
v/c Ratio	1.00	0.81	0.72	1.04	0.68	0.53	0.90	0.95	0.48	0.85	0.87	0.28
Control Delay	102.1	45.7	30.8	105.0	40.5	23.0	88.9	49.2	22.3	84.1	42.8	13.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	102.1	45.7	30.8	105.0	40.5	23.0	88.9	49.2	22.3	84.1	42.8	13.0
LOS	F	D	C	F	D	C	F	D	C	F	D	B
Approach Delay		52.7			55.1			49.7			43.7	
Approach LOS		D			E			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 119.3	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.04	
Intersection Signal Delay: 49.9	Intersection LOS: D
Intersection Capacity Utilization 94.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 25: Euclid Av. (SR-83) & Edison Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	334	1195	377	428	723	340	223	1771	281	201	1611	220
Future Volume (veh/h)	334	1195	377	428	723	340	223	1771	281	201	1611	220
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1700	1900	1900	1700	1900	1900	1700	1900	1900	1700	1900	1900
Adj Flow Rate, veh/h	352	1258	242	451	761	137	235	1864	145	212	1696	179
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	358	1485	419	440	1087	581	267	2001	564	253	1977	736
Arrive On Green	0.11	0.33	0.26	0.14	0.36	0.29	0.08	0.53	0.35	0.08	0.52	0.35
Sat Flow, veh/h	3238	5700	1610	3238	3800	1590	3238	5700	1607	3238	5700	1610
Grp Volume(v), veh/h	352	1258	242	451	761	137	235	1864	145	212	1696	179
Grp Sat Flow(s),veh/h/ln	1619	1900	1610	1619	1900	1590	1619	1900	1607	1619	1900	1610
Q Serve(g_s), s	12.8	24.2	15.4	16.0	20.2	7.1	8.4	35.8	7.6	7.6	30.3	8.0
Cycle Q Clear(g_c), s	12.8	24.2	15.4	16.0	20.2	7.1	8.4	35.8	7.6	7.6	30.3	8.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	358	1485	419	440	1087	581	267	2001	564	253	1977	736
V/C Ratio(X)	0.98	0.85	0.58	1.02	0.70	0.24	0.88	0.93	0.26	0.84	0.86	0.24
Avail Cap(c_a), veh/h	358	1599	452	440	1163	612	267	2001	564	253	1977	736
HCM Platoon Ratio	1.00	1.25	1.00	1.00	1.25	1.00	1.00	1.50	1.00	1.00	1.50	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.2	37.5	37.9	50.8	33.5	26.0	53.4	26.5	27.2	53.5	25.7	19.5
Incr Delay (d2), s/veh	43.0	4.2	1.6	49.2	1.7	0.2	26.1	9.4	1.1	20.1	5.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	10.8	6.1	9.3	8.7	2.6	4.3	13.3	3.0	3.7	10.8	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	95.2	41.7	39.4	100.0	35.2	26.2	79.5	35.9	28.3	73.6	30.8	20.3
LnGrp LOS	F	D	D	F	D	C	E	D	C	E	C	C
Approach Vol, veh/h		1852			1349			2244			2087	
Approach Delay, s/veh		51.6			56.0			40.0			34.3	
Approach LOS		D			E			D			C	

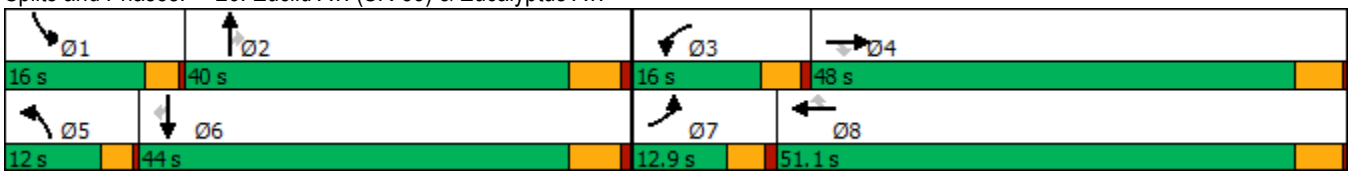
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	47.3	20.0	37.7	13.2	46.8	17.0	40.7
Change Period (Y+Rc), s	3.5	6.0	4.0	7.0	3.5	6.0	4.0	7.0
Max Green Setting (Gmax), s	9.2	41.3	16.0	33.0	9.7	40.8	13.0	36.0
Max Q Clear Time (g_c+I1), s	9.6	37.8	18.0	26.2	10.4	32.3	14.8	22.2
Green Ext Time (p_c), s	0.0	3.0	0.0	4.5	0.0	6.2	0.0	4.4

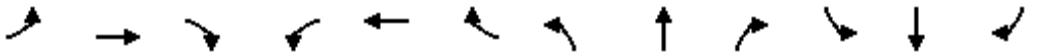
Intersection Summary	
HCM 6th Ctrl Delay	44.1
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	202	266	413	157	237	148	1772	383	260	1794	78
Future Volume (vph)	47	202	266	413	157	237	148	1772	383	260	1794	78
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	46.8	46.8	9.5	46.8	46.8	8.5	30.7	30.7	8.5	37.7	37.7
Total Split (s)	12.9	48.0	48.0	16.0	51.1	51.1	12.0	40.0	40.0	16.0	44.0	44.0
Total Split (%)	10.8%	40.0%	40.0%	13.3%	42.6%	42.6%	10.0%	33.3%	33.3%	13.3%	36.7%	36.7%
Yellow Time (s)	3.5	4.3	4.3	3.5	4.3	4.3	3.0	4.7	4.7	3.0	4.7	4.7
All-Red Time (s)	1.0	0.5	0.5	1.0	0.5	0.5	0.5	1.0	1.0	0.5	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.8	4.8	4.5	4.8	4.8	3.5	5.7	5.7	3.5	5.7	5.7
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	7.5	18.9	18.9	11.6	27.7	27.7	8.6	34.7	34.7	12.6	38.8	38.8
Actuated g/C Ratio	0.08	0.20	0.20	0.12	0.29	0.29	0.09	0.36	0.36	0.13	0.40	0.40
v/c Ratio	0.39	0.59	0.63	1.13	0.31	0.40	1.06	1.03	0.63	1.27	0.94	0.12
Control Delay	54.3	41.0	19.0	123.9	29.5	5.3	135.0	61.9	24.8	187.8	38.9	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.3	41.0	19.0	123.9	29.5	5.3	135.0	61.9	24.8	187.8	38.9	5.7
LOS	D	D	B	F	C	A	F	E	C	F	D	A
Approach Delay		30.9			70.7			60.4			55.9	
Approach LOS		C			E			E			E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 96.6	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.27	
Intersection Signal Delay: 57.5	Intersection LOS: E
Intersection Capacity Utilization 88.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 26: Euclid Av. (SR-83) & Eucalyptus Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	202	266	413	157	237	148	1772	383	260	1794	78
Future Volume (veh/h)	47	202	266	413	157	237	148	1772	383	260	1794	78
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	51	220	177	449	171	255	161	1926	415	283	1950	73
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	69	283	240	424	449	381	161	1972	612	237	2202	669
Arrive On Green	0.04	0.15	0.15	0.13	0.24	0.24	0.09	0.38	0.38	0.14	0.42	0.42
Sat Flow, veh/h	1714	1900	1610	3326	1900	1610	1714	5187	1610	1714	5187	1577
Grp Volume(v), veh/h	51	220	177	449	171	255	161	1926	415	283	1950	73
Grp Sat Flow(s),veh/h/ln	1714	1900	1610	1663	1900	1610	1714	1729	1610	1714	1729	1577
Q Serve(g_s), s	2.7	10.1	9.5	11.5	6.8	13.0	8.5	33.0	19.4	12.5	31.3	2.5
Cycle Q Clear(g_c), s	2.7	10.1	9.5	11.5	6.8	13.0	8.5	33.0	19.4	12.5	31.3	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	69	283	240	424	449	381	161	1972	612	237	2202	669
V/C Ratio(X)	0.74	0.78	0.74	1.06	0.38	0.67	1.00	0.98	0.68	1.19	0.89	0.11
Avail Cap(c_a), veh/h	160	910	771	424	975	826	161	1972	612	237	2202	669
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.9	37.0	36.7	39.4	28.9	31.3	40.9	27.6	23.4	38.9	23.9	15.7
Incr Delay (d2), s/veh	14.6	3.5	3.3	60.3	0.4	1.5	69.9	15.1	3.0	120.1	4.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	4.7	3.8	8.0	3.0	4.9	6.5	14.5	7.2	12.8	11.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.5	40.4	40.0	99.6	29.3	32.8	110.7	42.7	26.4	159.0	28.7	15.7
LnGrp LOS	E	D	D	F	C	C	F	D	C	F	C	B
Approach Vol, veh/h		448			875			2502			2306	
Approach Delay, s/veh		42.2			66.4			44.4			44.3	
Approach LOS		D			E			D			D	

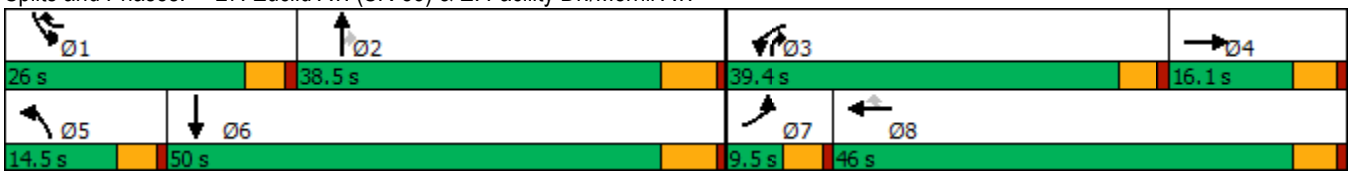
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	40.0	16.0	18.2	12.0	44.0	8.1	26.1
Change Period (Y+Rc), s	3.5	5.7	4.5	4.8	3.5	5.7	4.5	4.8
Max Green Setting (Gmax), s	12.5	34.3	11.5	43.2	8.5	38.3	8.4	46.3
Max Q Clear Time (g_c+I1), s	14.5	35.0	13.5	12.1	10.5	33.3	4.7	15.0
Green Ext Time (p_c), s	0.0	0.0	0.0	1.4	0.0	4.2	0.0	1.3

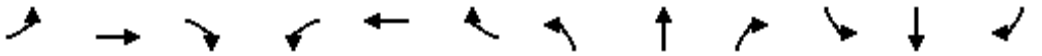
Intersection Summary	
HCM 6th Ctrl Delay	47.3
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	14	37	633	3	421	5	1577	801	392	1647
Future Volume (vph)	14	37	633	3	421	5	1577	801	392	1647
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	3	8	1	5	2	3	1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	1	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	15.0	10.0	10.0	5.0	5.0	10.0	5.0
Minimum Split (s)	9.5	10.0	9.5	46.0	14.5	14.5	28.0	9.5	14.5	28.0
Total Split (s)	9.5	16.1	39.4	46.0	26.0	14.5	38.5	39.4	26.0	50.0
Total Split (%)	7.9%	13.4%	32.8%	38.3%	21.7%	12.1%	32.1%	32.8%	21.7%	41.7%
Yellow Time (s)	3.5	4.0	3.5	4.0	3.5	3.5	5.0	3.5	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	5.0	4.5	5.0	4.5	4.5	6.0	4.5	4.5	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	None	Min
Act Effct Green (s)	5.1	7.4	29.4	37.2	64.0	10.1	32.9	68.4	21.7	56.5
Actuated g/C Ratio	0.05	0.07	0.27	0.34	0.59	0.09	0.30	0.63	0.20	0.52
v/c Ratio	0.19	0.41	0.77	0.00	0.47	0.03	1.10	0.78	1.25	0.67
Control Delay	60.1	51.1	43.5	24.0	11.8	50.4	92.0	16.4	174.3	23.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.1	51.1	43.5	24.0	11.8	50.4	92.0	16.4	174.3	23.9
LOS	E	D	D	C	B	D	F	B	F	C
Approach Delay		53.0		30.8			66.5			52.8
Approach LOS		D		C			E			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 109.2	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.25	
Intersection Signal Delay: 54.5	Intersection LOS: D
Intersection Capacity Utilization 92.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 27: Euclid Av. (SR-83) & E. Facility Dr./Merrill Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	37	15	633	3	421	5	1577	801	392	1647	1
Future Volume (veh/h)	14	37	15	633	3	421	5	1577	801	392	1647	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	15	40	15	688	3	448	5	1714	807	426	1790	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	29	65	24	791	514	769	22	1623	887	355	2630	0
Arrive On Green	0.02	0.05	0.05	0.24	0.27	0.27	0.01	0.31	0.31	0.21	0.51	0.00
Sat Flow, veh/h	1714	1317	494	3326	1900	1610	1714	5187	1610	1714	5358	0
Grp Volume(v), veh/h	15	0	55	688	3	448	5	1714	807	426	1790	0
Grp Sat Flow(s),veh/h/ln	1714	0	1811	1663	1900	1610	1714	1729	1610	1714	1729	0
Q Serve(g_s), s	0.9	0.0	3.1	20.6	0.1	20.9	0.3	32.5	32.5	21.5	27.0	0.0
Cycle Q Clear(g_c), s	0.9	0.0	3.1	20.6	0.1	20.9	0.3	32.5	32.5	21.5	27.0	0.0
Prop In Lane	1.00		0.27	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	29	0	90	791	514	769	22	1623	887	355	2630	0
V/C Ratio(X)	0.52	0.00	0.61	0.87	0.01	0.58	0.23	1.06	0.91	1.20	0.68	0.00
Avail Cap(c_a), veh/h	83	0	194	1118	750	969	165	1623	887	355	2630	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	50.6	0.0	48.4	38.0	27.7	19.6	50.7	35.7	21.0	41.2	19.3	0.0
Incr Delay (d2), s/veh	13.5	0.0	2.5	5.5	0.0	0.3	1.9	38.8	13.3	114.2	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	1.5	8.5	0.1	7.1	0.1	18.3	18.1	19.7	9.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.2	0.0	50.9	43.5	27.7	19.9	52.6	74.4	34.3	155.3	20.0	0.0
LnGrp LOS	E	A	D	D	C	B	D	F	C	F	B	A
Approach Vol, veh/h		70			1139			2526			2216	
Approach Delay, s/veh		53.7			34.2			61.6			46.0	
Approach LOS		D			C			E			D	

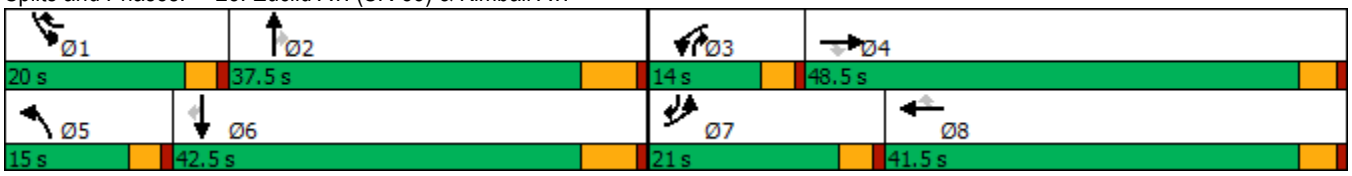
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	38.5	29.2	10.1	5.8	58.7	6.3	33.1
Change Period (Y+Rc), s	4.5	6.0	4.5	5.0	4.5	6.0	4.5	5.0
Max Green Setting (Gmax), s	21.5	32.5	34.9	11.1	10.0	44.0	5.0	41.0
Max Q Clear Time (g_c+I1), s	23.5	34.5	22.6	5.1	2.3	29.0	2.9	22.9
Green Ext Time (p_c), s	0.0	0.0	2.1	0.1	0.0	9.7	0.0	0.7

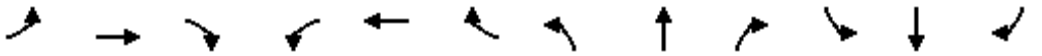
Intersection Summary	
HCM 6th Ctrl Delay	50.4
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	591	975	206	105	435	293	147	1332	159	541	1419	419
Future Volume (vph)	591	975	206	105	435	293	147	1332	159	541	1419	419
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4		3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	5.0	10.0	5.0	5.0	10.0
Minimum Split (s)	14.0	41.5	41.5	14.0	41.5	9.0	14.0	36.0	14.0	9.0	33.0	14.0
Total Split (s)	21.0	48.5	48.5	14.0	41.5	20.0	15.0	37.5	14.0	20.0	42.5	21.0
Total Split (%)	17.5%	40.4%	40.4%	11.7%	34.6%	16.7%	12.5%	31.3%	11.7%	16.7%	35.4%	17.5%
Yellow Time (s)	3.0	3.5	3.5	3.0	3.5	3.0	3.0	5.0	3.0	3.0	5.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.5	4.5	4.0	4.5	4.0	4.0	6.0	4.0	4.0	6.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	None	Min	None
Act Effct Green (s)	17.0	38.6	38.6	10.0	31.6	52.1	11.0	31.6	47.6	16.0	36.6	55.7
Actuated g/C Ratio	0.15	0.34	0.34	0.09	0.28	0.45	0.10	0.28	0.41	0.14	0.32	0.49
v/c Ratio	1.17	0.83	0.33	0.35	0.45	0.38	0.88	0.96	0.22	1.14	0.88	0.51
Control Delay	139.7	41.6	8.0	54.2	35.7	14.6	95.6	58.2	7.9	130.7	45.3	14.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	139.7	41.6	8.0	54.2	35.7	14.6	95.6	58.2	7.9	130.7	45.3	14.0
LOS	F	D	A	D	D	B	F	E	A	F	D	B
Approach Delay		70.4			30.6			56.7			59.2	
Approach LOS		E			C			E			E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 114.8	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.17	
Intersection Signal Delay: 58.0	Intersection LOS: E
Intersection Capacity Utilization 92.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 28: Euclid Av. (SR-83) & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	591	975	206	105	435	293	147	1332	159	541	1419	419
Future Volume (veh/h)	591	975	206	105	435	293	147	1332	159	541	1419	419
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	609	1005	209	108	448	264	152	1373	149	558	1463	334
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	530	1186	529	301	951	653	177	1447	587	499	1677	763
Arrive On Green	0.15	0.33	0.33	0.09	0.26	0.26	0.12	0.35	0.35	0.18	0.40	0.40
Sat Flow, veh/h	3510	3610	1609	3510	3610	1610	1810	5187	1610	3510	5187	1609
Grp Volume(v), veh/h	609	1005	209	108	448	264	152	1373	149	558	1463	334
Grp Sat Flow(s),veh/h/ln	1755	1805	1609	1755	1805	1610	1810	1729	1610	1755	1729	1609
Q Serve(g_s), s	17.0	29.1	11.3	3.3	11.7	13.1	9.3	29.0	6.8	16.0	29.2	14.6
Cycle Q Clear(g_c), s	17.0	29.1	11.3	3.3	11.7	13.1	9.3	29.0	6.8	16.0	29.2	14.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	530	1186	529	301	951	653	177	1447	587	499	1677	763
V/C Ratio(X)	1.15	0.85	0.40	0.36	0.47	0.40	0.86	0.95	0.25	1.12	0.87	0.44
Avail Cap(c_a), veh/h	530	1411	629	312	1187	758	177	1452	589	499	1682	765
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.25	1.25	1.25	1.25	1.25	1.25
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.8	35.1	29.1	48.5	34.9	23.8	48.6	35.9	22.4	46.3	31.4	17.1
Incr Delay (d2), s/veh	87.0	4.3	0.5	0.3	0.1	0.1	31.0	13.4	0.2	76.8	5.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.6	12.8	4.3	1.4	5.0	4.8	5.4	12.3	2.4	11.6	11.1	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	134.7	39.5	29.6	48.8	35.0	23.9	79.6	49.2	22.7	123.0	36.7	17.5
LnGrp LOS	F	D	C	D	C	C	E	D	C	F	D	B
Approach Vol, veh/h		1823			820			1674			2355	
Approach Delay, s/veh		70.2			33.2			49.6			54.4	
Approach LOS		E			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	37.4	13.7	41.5	15.0	42.4	21.0	34.1
Change Period (Y+Rc), s	4.0	6.0	4.0	4.5	4.0	6.0	4.0	4.5
Max Green Setting (Gmax), s	16.0	31.5	10.0	44.0	11.0	36.5	17.0	37.0
Max Q Clear Time (g_c+I1), s	18.0	31.0	5.3	31.1	11.3	31.2	19.0	15.1
Green Ext Time (p_c), s	0.0	0.4	0.1	5.8	0.0	4.0	0.0	2.1

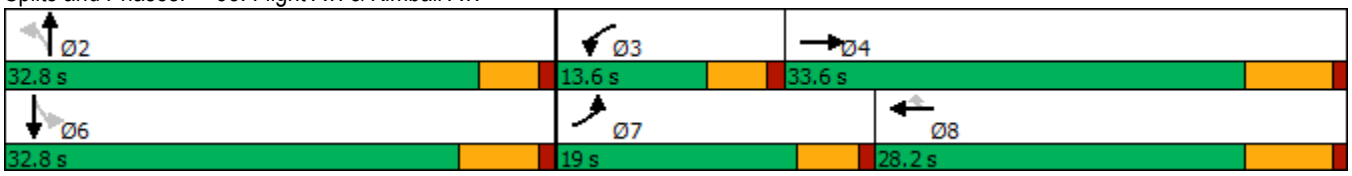
Intersection Summary	
HCM 6th Ctrl Delay	54.9
HCM 6th LOS	D

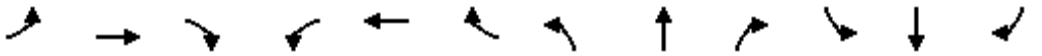
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	281	774	67	630	221	10	14	193	17
Future Volume (vph)	281	774	67	630	221	10	14	193	17
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA
Protected Phases	7	4	3	8			2		6
Permitted Phases					8	2		6	
Detector Phase	7	4	3	8	8	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.2	9.6	28.2	28.2	31.6	31.6	32.8	32.8
Total Split (s)	19.0	33.6	13.6	28.2	28.2	32.8	32.8	32.8	32.8
Total Split (%)	23.8%	42.0%	17.0%	35.3%	35.3%	41.0%	41.0%	41.0%	41.0%
Yellow Time (s)	3.6	5.2	3.6	5.2	5.2	3.6	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	6.2	6.2		4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	Min	Min	Min	Min

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 65
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 38: Flight Av. & Kimball Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	281	774	42	67	630	221	10	14	23	193	17	226
Future Volume (veh/h)	281	774	42	67	630	221	10	14	23	193	17	226
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1800	1900	1900	1800	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	290	798	43	69	649	228	10	14	24	199	18	233
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	341	1394	75	100	938	418	113	144	180	402	29	373
Arrive On Green	0.20	0.40	0.40	0.06	0.26	0.26	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1714	3484	188	1714	3610	1610	144	583	726	1318	117	1511
Grp Volume(v), veh/h	290	413	428	69	649	228	48	0	0	199	0	251
Grp Sat Flow(s),veh/h/ln	1714	1805	1866	1714	1805	1610	1453	0	0	1318	0	1628
Q Serve(g_s), s	9.2	10.1	10.1	2.2	9.2	6.9	0.1	0.0	0.0	2.4	0.0	7.7
Cycle Q Clear(g_c), s	9.2	10.1	10.1	2.2	9.2	6.9	7.8	0.0	0.0	10.2	0.0	7.7
Prop In Lane	1.00		0.10	1.00		1.00	0.21		0.50	1.00		0.93
Lane Grp Cap(c), veh/h	341	722	747	100	938	418	436	0	0	402	0	402
V/C Ratio(X)	0.85	0.57	0.57	0.69	0.69	0.55	0.11	0.00	0.00	0.50	0.00	0.62
Avail Cap(c_a), veh/h	438	877	906	273	1408	628	828	0	0	707	0	779
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.8	13.2	13.2	26.0	18.8	18.0	16.5	0.0	0.0	20.1	0.0	18.9
Incr Delay (d2), s/veh	9.9	0.7	0.7	3.1	0.9	1.1	0.1	0.0	0.0	0.9	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	3.2	3.3	0.9	3.2	2.2	0.5	0.0	0.0	2.2	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.7	13.9	13.9	29.1	19.8	19.1	16.6	0.0	0.0	21.1	0.0	20.5
LnGrp LOS	C	B	B	C	B	B	B	A	A	C	A	C
Approach Vol, veh/h		1131			946			48			450	
Approach Delay, s/veh		18.5			20.3			16.6			20.7	
Approach LOS		B			C			B			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		19.7	7.9	28.8		19.7	15.8	20.8				
Change Period (Y+Rc), s		* 5.8	4.6	6.2		5.8	4.6	6.2				
Max Green Setting (Gmax), s		* 28	9.0	27.4		27.0	14.4	22.0				
Max Q Clear Time (g_c+I1), s		9.8	4.2	12.1		12.2	11.2	11.2				
Green Ext Time (p_c), s		0.2	0.0	4.1		1.8	0.1	3.5				

Intersection Summary												
HCM 6th Ctrl Delay			19.5									
HCM 6th LOS			B									

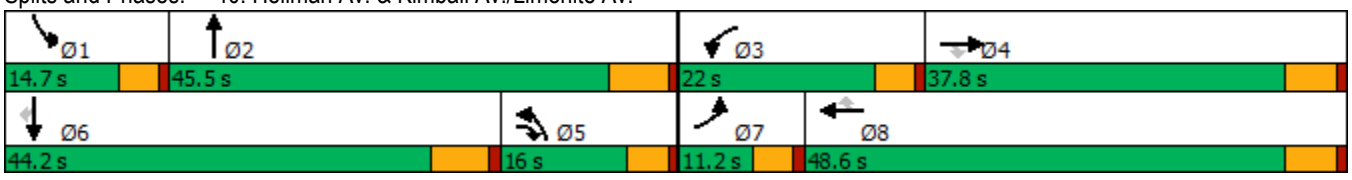
Notes

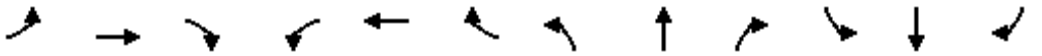
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	30	967	258	483	809	62	326	93	123	98	148
Future Volume (vph)	30	967	258	483	809	62	326	93	123	98	148
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	5	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	37.8	9.6	9.6	37.8	37.8	9.6	43.2	9.6	43.2	43.2
Total Split (s)	11.2	37.8	16.0	22.0	48.6	48.6	16.0	45.5	14.7	44.2	44.2
Total Split (%)	9.3%	31.5%	13.3%	18.3%	40.5%	40.5%	13.3%	37.9%	12.3%	36.8%	36.8%
Yellow Time (s)	3.6	4.8	3.6	3.6	4.8	4.8	3.6	5.2	3.6	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	4.6	5.8	5.8	4.6	6.2	4.6	6.2	6.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	None	Max	Max	None	None	None	None	None
Act Effct Green (s)	6.0	32.3	46.9	17.6	48.1	48.1	13.4	17.9	10.1	14.6	14.6
Actuated g/C Ratio	0.06	0.33	0.47	0.18	0.48	0.48	0.14	0.18	0.10	0.15	0.15
v/c Ratio	0.31	0.87	0.31	0.92	0.49	0.07	0.81	0.86dr	0.75	0.19	0.41
Control Delay	56.1	41.7	3.2	64.2	21.2	0.2	58.9	21.9	71.1	36.8	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.1	41.7	3.2	64.2	21.2	0.2	58.9	21.9	71.1	36.8	8.0
LOS	E	D	A	E	C	A	E	C	E	D	A
Approach Delay		34.2			35.6			36.1		36.6	
Approach LOS		C			D			D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 99.2	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 35.3	Intersection LOS: D
Intersection Capacity Utilization 83.5%	ICU Level of Service E
Analysis Period (min) 15	
dr Defacto Right Lane. Recode with 1 though lane as a right lane.	

Splits and Phases: 40: Hellman Av. & Kimball Av./Limonite Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	967	258	483	809	62	326	93	430	123	98	148
Future Volume (veh/h)	30	967	258	483	809	62	326	93	430	123	98	148
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1700	1900	1900	1700	1900	1900	1800	1900	1900
Adj Flow Rate, veh/h	32	1018	272	508	852	65	343	98	348	129	103	156
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	49	1083	826	513	1569	700	669	446	398	156	397	177
Arrive On Green	0.03	0.30	0.30	0.16	0.43	0.43	0.21	0.25	0.25	0.09	0.11	0.11
Sat Flow, veh/h	1714	3610	1610	3141	3610	1610	3141	1805	1610	1714	3610	1610
Grp Volume(v), veh/h	32	1018	272	508	852	65	343	98	348	129	103	156
Grp Sat Flow(s),veh/h/ln	1714	1805	1610	1570	1805	1610	1570	1805	1610	1714	1805	1610
Q Serve(g_s), s	2.0	29.3	4.5	17.2	18.6	2.5	10.3	4.6	22.1	7.9	2.8	8.7
Cycle Q Clear(g_c), s	2.0	29.3	4.5	17.2	18.6	2.5	10.3	4.6	22.1	7.9	2.8	8.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	49	1083	826	513	1569	700	669	446	398	156	397	177
V/C Ratio(X)	0.65	0.94	0.33	0.99	0.54	0.09	0.51	0.22	0.87	0.83	0.26	0.88
Avail Cap(c_a), veh/h	106	1083	826	513	1569	700	669	665	593	162	1287	574
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.2	36.4	4.5	44.5	22.3	17.8	37.1	32.0	38.6	47.7	43.5	34.1
Incr Delay (d2), s/veh	5.3	16.2	1.1	37.3	1.4	0.3	0.3	0.2	9.5	26.1	0.3	13.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	14.6	2.0	9.1	7.6	0.9	3.8	1.9	9.3	4.4	1.2	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.5	52.6	5.6	81.8	23.7	18.0	37.4	32.2	48.0	73.7	43.8	47.3
LnGrp LOS	E	D	A	F	C	B	D	C	D	E	D	D
Approach Vol, veh/h		1322			1425			789			388	
Approach Delay, s/veh		43.0			44.1			41.4			55.2	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.3	32.5	22.0	37.8	28.9	17.9	7.7	52.1
Change Period (Y+Rc), s	4.6	6.2	4.6	5.8	6.2	* 6.2	4.6	5.8
Max Green Setting (Gmax), s	10.1	39.3	17.4	32.0	11.4	* 38	6.6	42.8
Max Q Clear Time (g_c+I1), s	9.9	24.1	19.2	31.3	12.3	10.7	4.0	20.6
Green Ext Time (p_c), s	0.0	2.2	0.0	0.5	0.0	1.0	0.0	5.8

Intersection Summary	
HCM 6th Ctrl Delay	44.3
HCM 6th LOS	D

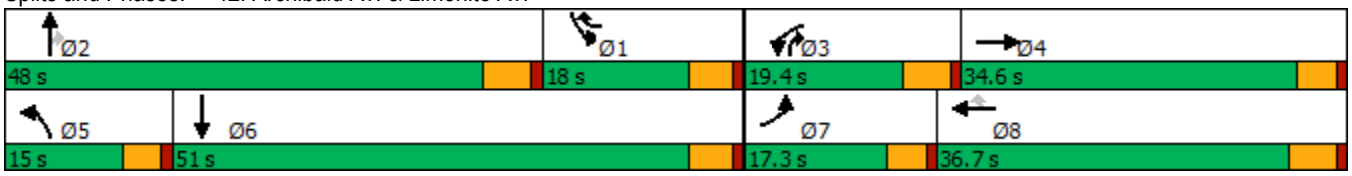
Notes

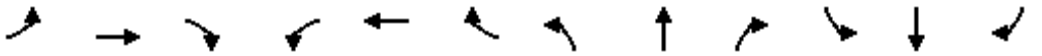
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	212	780	470	741	686	131	1155	484	655	1480
Future Volume (vph)	212	780	470	741	686	131	1155	484	655	1480
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4	3	8	1	5	2	3	1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	1	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	6.0	6.0	6.0	6.0	5.0	6.0	6.0	6.0	6.0
Minimum Split (s)	9.6	34.6	11.3	36.3	11.0	9.5	46.3	11.3	11.0	43.0
Total Split (s)	17.3	34.6	19.4	36.7	18.0	15.0	48.0	19.4	18.0	51.0
Total Split (%)	14.4%	28.8%	16.2%	30.6%	15.0%	12.5%	40.0%	16.2%	15.0%	42.5%
Yellow Time (s)	3.6	3.6	4.3	4.3	4.0	3.5	4.3	4.3	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	5.3	5.3	5.0	4.5	5.3	5.3	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Max	None	None	None	Max	Max
Act Effct Green (s)	11.6	30.0	14.1	32.5	53.6	10.3	34.7	48.8	20.8	46.0
Actuated g/C Ratio	0.10	0.25	0.12	0.27	0.45	0.09	0.29	0.41	0.17	0.38
v/c Ratio	0.62	0.98	1.13	0.73	0.90	0.87	0.71	0.72	1.07	0.83
Control Delay	59.9	69.3	131.6	45.0	36.2	99.1	40.4	19.4	102.1	36.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.9	69.3	131.6	45.0	36.2	99.1	40.4	19.4	102.1	36.7
LOS	E	E	F	D	D	F	D	B	F	D
Approach Delay		67.5		63.3			39.0			54.4
Approach LOS		E		E			D			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 119.8	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.13	
Intersection Signal Delay: 55.0	Intersection LOS: D
Intersection Capacity Utilization 97.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 42: Archibald Av. & Limonite Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	212	780	127	470	741	686	131	1155	484	655	1480	282
Future Volume (veh/h)	212	780	127	470	741	686	131	1155	484	655	1480	282
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	216	796	66	480	756	650	134	1179	473	668	1510	144
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	279	851	71	424	1109	749	158	1651	649	628	1960	187
Arrive On Green	0.08	0.25	0.25	0.12	0.29	0.29	0.09	0.29	0.29	0.17	0.38	0.38
Sat Flow, veh/h	3619	3461	287	3619	3800	1610	1810	5700	1590	3619	5124	488
Grp Volume(v), veh/h	216	437	425	480	756	650	134	1179	473	668	1120	534
Grp Sat Flow(s),veh/h/ln	1810	1900	1848	1810	1900	1610	1810	1900	1590	1810	1900	1812
Q Serve(g_s), s	7.0	27.1	27.1	14.1	21.2	15.7	8.8	22.3	14.8	20.9	31.0	31.1
Cycle Q Clear(g_c), s	7.0	27.1	27.1	14.1	21.2	15.7	8.8	22.3	14.8	20.9	31.0	31.1
Prop In Lane	1.00		0.16	1.00		1.00	1.00		1.00	1.00		0.27
Lane Grp Cap(c), veh/h	279	467	454	424	1109	749	158	1651	649	628	1453	693
V/C Ratio(X)	0.77	0.94	0.94	1.13	0.68	0.87	0.85	0.71	0.73	1.06	0.77	0.77
Avail Cap(c_a), veh/h	382	474	461	424	1109	749	158	2024	753	628	1453	693
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.5	44.4	44.4	53.1	37.6	14.4	54.1	38.3	11.1	49.7	32.5	32.5
Incr Delay (d2), s/veh	6.6	25.9	26.4	84.6	1.4	10.2	31.4	1.0	3.3	54.1	4.0	8.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	15.6	15.3	11.2	9.6	10.1	5.2	10.0	4.5	13.7	14.0	14.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.1	70.3	70.8	137.7	39.1	24.5	85.5	39.3	14.4	103.8	36.5	40.6
LnGrp LOS	E	E	E	F	D	C	F	D	B	F	D	D
Approach Vol, veh/h		1078			1886			1786			2322	
Approach Delay, s/veh		68.7			59.2			36.2			56.8	
Approach LOS		E			E			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.9	40.1	19.4	34.9	15.0	51.0	13.9	40.4
Change Period (Y+Rc), s	5.0	5.3	5.3	* 5.3	4.5	5.0	4.6	5.3
Max Green Setting (Gmax), s	13.0	42.7	14.1	* 30	10.5	46.0	12.7	31.4
Max Q Clear Time (g_c+I1), s	22.9	24.3	16.1	29.1	10.8	33.1	9.0	23.2
Green Ext Time (p_c), s	0.0	10.6	0.0	0.5	0.0	5.5	0.2	2.3

Intersection Summary	
HCM 6th Ctrl Delay	54.0
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.