



Eden Mixed-Use (PL23-0111)

AIR QUALITY IMPACT ANALYSIS

CITY OF CHINO

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LIST OF ABBREVIATED TERMS

%	Percent
°F	Degrees Fahrenheit
(1)	Reference
µg/m ³	Microgram per Cubic Meter
<i>1992 CO Plan</i>	<i>1992 Federal Attainment Plan for Carbon Monoxide</i>
<i>1993 CEQA Handbook</i>	<i>SCAQMD's CEQA Air Quality Handbook (1993)</i>
<i>2020-2045 RTP/SCS</i>	<i>2020-2045 Regional Transportation Plan/Sustainable Communities Strategy</i>
AB 2595	California Clean Air Act
APN	Assessor Parcel Number
AQIA	Air Quality Impact Analysis
AQMP	Air Quality Management Plan
BACT	Best Available Control Technology
BC	Black Carbon
<i>Brief</i>	<i>Brief of Amicus Curiae by the SCAQMD in the Friant Ranch Case</i>
C ₂ Cl ₄	Perchloroethylene
C ₄ H ₆	1,3-butadiene
C ₆ H ₆	Benzene
C ₂ H ₃ Cl	Vinyl Chloride
C ₂ H ₄ O	Acetaldehyde
CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CALGreen	California Green Building Standards Code
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
<i>CEQA Guidelines</i>	<i>2019 CEQA Statute and Guidelines</i>
CH ₂ O	Formaldehyde
City	City of Chino
CO	Carbon Monoxide

COH	Coefficient of Haze
COHb	Carboxyhemoglobin
Cr(VI)	Chromium
CTP	Clean Truck Program
DPM	Diesel Particulate Matter
DRRP	Diesel Risk Reduction Plan
EC	Elemental Carbon
EIR	Environmental Impact Report
EMFAC	Emissions FACtor Model
EPA	Environmental Protection Agency
ETW	Equivalent Test Weight
EV	Electric Vehicle
FEIR	<i>General Plan Environmental Impact Report Final EIR</i>
GC	General Commercial
GHG	Greenhouse Gas
GVWR	Gross Vehicle Weight Rating
H ₂ S	Hydrogen Sulfide
HDT	Heavy-Duty Trucks
HHDT	Heavy-Heavy-Duty Trucks
HI	Hazard Index
hp	Horsepower
HPLV	High-Pressure-Low-Volume
I-PID	Planned Industrial Development
lbs	Pounds
lbs/day	Pounds Per Day
LDA	Light Duty Auto
LDT1/LDT2	Light-Duty Trucks
LHDT1/LHDT2	Light-Heavy-Duty Trucks
LST	Localized Significance Threshold
<i>LST Methodology</i>	<i>Final Localized Significance Threshold Methodology</i>
MATES	Multiple Air Toxics Exposure Study
MCY	Motorcycles
MDV	Medium-Duty Vehicles
MHDT	Medium-Heavy-Duty Trucks
MICR	Maximum Individual Cancer Risk
MM	Mitigation Measures
mph	Miles Per Hour
MWEL0	California Department of Water Resources' Model Water

	Efficient
N ₂	Nitrogen
N ₂ O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards
NO	Nitric Oxide
NO ₂	Nitrogen Dioxide
NO _x	Nitrogen Oxides
O ₂	Oxygen
O ₃	Ozone
O ₂ Deficiency	Chronic Hypoxemia
OBD-II	On-Board Diagnostic
ODC	Ozone Depleting Compounds
Pb	Lead
PM	Particulate Matter
PM ₁₀	Particulate Matter 10 microns in diameter or less
PM _{2.5}	Particulate Matter 2.5 microns in diameter or less
POLA	Port of Los Angeles
POLB	Port of Long Beach
ppm	Parts Per Million
Project	Eden Mixed-Use (PL23-0111)
RECLAIM	Regional Clean Air Incentives Market
RFG-2	Reformulated Gasoline Regulation
ROG	Reactive Organic Gases
SB	Senate Bill
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
sf	Square Feet
SIPs	State Implementation Plans
SO ₂	Sulfur Dioxide
SO ₄	Sulfates
SO _x	Sulfur Oxides
SR-83	Euclid Avenue
SRA	Source Receptor Area
TAC	Toxic Air Contaminant
Title 24	California Building Code
TITLE I	Non-Attainment Provisions
TITLE II	Mobile Sources Provisions

UFP	Ultrafine Particles
URBEMIS	URBan EMISsions
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds
vph	Vehicles Per Hour

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EXECUTIVE SUMMARY

Pursuant to California Environmental Quality Act (CEQA) § 15164 (a) the lead agency shall prepare an addendum to a previously certified Environmental Impact Report (EIR) if some changes or additions are necessary but none of the conditions described in §15162 calling for preparation of a subsequent EIR have occurred. More specifically, §15162 (a)(3)(A) states that no subsequent EIR shall be prepared for the project unless the project will have one or more significant effects not discussed in the previous EIR. Section 15162(a)(3)(B) states that no subsequent EIR shall be prepared for the project unless significant effects previously examined will be substantially more severe than shown in the previous EIR. Significant and unavoidable construction and operational impacts were previously identified and disclosed in *General Plan Environmental Impact Report Final EIR, City of Chino*, Updated May 21, 2010, SCH No. 2008091064 (referred to herein as *FEIR*). The *FEIR* substantiates that under City Buildout Conditions, construction-source and operational-source emissions of volatile organic compounds (VOCs), nitrogen oxides (NO_x), carbon monoxide (CO), particulate matter 10 microns in diameter or less (PM₁₀), and particulate matter 2.5 microns in diameter or less (PM_{2.5}) would exceed the South Coast Air Quality Management District's (SCAQMD) regional thresholds of significance (1).

Based on the Project-specific analysis presented herein, all Project air quality impacts would be less-than-significant. On this basis, the Project air quality impacts would not be greater than or substantially different than impacts considered and addressed in the *FEIR*. No changed or new information has been identified to indicate that any potential air quality impacts resulting from the Project would be different from those previously identified and addressed in the *FEIR*.

ES.1 SUMMARY OF FINDINGS

The results of this *Eden Mixed-Use (PL23-0111) Air Quality Impact Analysis (AQIA)* are summarized below based on the significance criteria in Section 3 of this report consistent with Appendix G of the *CEQA Guidelines (CEQA Guidelines)* (2). Table ES-1 shows the findings of less than significant for each potential air quality impact under CEQA. It should be noted that the *FEIR* identifies significant and unavoidable impacts for which no mitigation is available to reduce the level of the impact to a less-than-significant level. As such, no mitigation measures (MM) were identified in the *FEIR*.

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

Analysis	Section	Significance Findings			New Significant Impact?
		FEIR	Proposed Project		
			Unmitigated	Mitigated	
Regional Construction Emissions	3.4	<i>Significant and Unavoidable</i>	<i>Less Than Significant</i>	<i>n/a</i>	NO
Localized Construction Emissions	3.7	<i>n/a</i>	<i>Less Than Significant</i>	<i>n/a</i>	NO
Regional Operational Emissions	3.5	<i>Significant and Unavoidable</i>	<i>Less Than Significant</i>	<i>n/a</i>	NO
Localized Operational Emissions	3.8	<i>n/a</i>	<i>Less Than Significant</i>	<i>n/a</i>	NO
CO "Hot Spot" Analysis	3.9	<i>Less Than Significant</i>	<i>Less Than Significant</i>	<i>n/a</i>	NO
Air Quality Management Plan	3.10	<i>Significant and Unavoidable</i>	<i>Less Than Significant</i>	<i>n/a</i>	NO
Sensitive Receptors	3.11	<i>Less Than Significant</i>	<i>Less Than Significant</i>	<i>n/a</i>	NO
Odors	3.12	<i>Less Than Significant</i>	<i>Less Than Significant</i>	<i>n/a</i>	NO
Cumulative Impacts	3.13	<i>Significant and Unavoidable</i>	<i>Less Than Significant</i>	<i>n/a</i>	NO

ES.2 REGULATORY REQUIREMENTS

There are numerous requirements that development projects must comply with by law, and that were put in place by federal, State, and local regulatory agencies for the improvement of air quality.

Any operation or activity that might cause the emission of any smoke, fly ash, dust, fumes, vapors, gases, or other forms of air pollution, which can cause damage to human health, vegetation, or other forms of property, or can cause excessive soiling on any other parcel shall conform to the requirements of the SCAQMD.

SCAQMD RULES

SCAQMD Rules that are currently applicable during construction activity for this Project are described below.

SCAQMD RULE 402

A person shall not discharge from any source whatsoever such quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any such persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule do not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

Odor Emissions. All uses shall be operated in a manner such that no offensive odor is perceptible at or beyond the property line of that use.

SCAQMD RULE 403

This rule is intended to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (human-made) fugitive dust sources by requiring actions to prevent and reduce fugitive dust emissions. Rule 403 applies to any activity or human-made condition capable of generating fugitive dust and requires best available control measures to be applied to earth moving and grading activities.

Dust Control, Operations. Any operation or activity that might cause the emission of any smoke, fly ash, dust, fumes, vapors, gases, or other forms of air pollution, which can cause damage to human health, vegetation, or other forms of property, or can cause excessive soiling on any other parcel, shall conform to the requirements of the SCAQMD.

SCAQMD RULE 1113

This rule serves to limit the VOC content of architectural coatings used on projects in the SCAQMD. Any person who supplies, sells, offers for sale, or manufactures any architectural coating for use on projects.

SCAQMD RULE 1301

This rule is intended to provide that pre-construction review requirements to ensure that new or relocated facilities do not interfere with progress in attainment of the National Ambient Air Quality Standards (NAAQS), while future economic growth within the SCAQMD is not unnecessarily restricted. The specific air quality goal is to achieve no net increases from new or modified permitted sources of nonattainment air contaminants or their precursors. Rule 1301 also limits emission increases of ammonia, and Ozone Depleting Compounds (ODCs) from new, modified or relocated facilities by requiring the use of Best Available Control Technology (BACT).

SCAQMD RULE 1401

A person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any 1 hour that is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart, as published by the United States (U.S.) Bureau of Mines.

SCAQMD RULE 2305

The SCAQMD adopted Rule 2305, the Warehouse Indirect Source Rule, on May 7, 2021. Owners and operators associated with warehouses 100,000 square feet (sf) or larger are required to directly reduce nitrogen oxides (NO_x) and particulate matter emissions, or to otherwise facilitate emission and exposure reductions of these pollutants in nearby communities. The rule imposes a “Warehouse Points Compliance Obligation” (WPCO) on warehouse operators. Operators satisfy the WPCO by accumulating “Warehouse Actions and Investments to Reduce Emissions Points” (WAIRE Points) in a given 12-month period. WAIRE Points are awarded by implementing measures to reduce emissions listed on the WAIRE Menu, or by implementing a custom WAIRE Plan approved by the SCAQMD.

Although the Project would comply with Rule 2305, it should be noted that there is no way to quantify these reductions in the California Emissions Estimator Model (CalEEMod). The two most pertinent regulatory requirements that could be modeled, are Rule 403 (Fugitive Dust) (3) and Rule 1113 (Architectural Coatings) (4). Credit for Rule 403 and Rule 1113 have been taken in the analysis.

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1 INTRODUCTION

This report presents the results of the AQIA prepared by Urban Crossroads, Inc., for the proposed Eden Mixed-Use (PL23-0111) (Project). The purpose of this AQIA is to evaluate the potential impacts to air quality associated with construction and operation of the Project and recommend measures to mitigate impacts considered potentially significant in comparison to thresholds established by the SCAQMD.

1.1 SITE LOCATION

The proposed Project is located on the northwest corner of Euclid Avenue (SR-83) and Schaefer Avenue City of Chino, as shown on Exhibit 1-A. The nearest residential homes are generally located north of the Project site and west of the Project site across Fern Avenue.

1.2 PROJECT DESCRIPTION

A preliminary site plan for the proposed Project is shown on Exhibit 1-B. The Project is currently proposed to consist of the development of the following uses:

- Four-story residential component with 282 multifamily (mid-rise) residential dwelling units
- Four-story self-storage component with 145,000 square feet of self-storage use
- A retail component that consists of 2 fast-food restaurants with drive-through window pads totaling 7,000 square feet and a 12,500 square foot retail pad (assuming 9,400 square feet of fast-food restaurant without drive-through window use and 3,100 square feet of retail use)

It is anticipated that the Project would be developed in a single phase with an anticipated Opening Year of 2024. In addition, this analysis describes Project-related emissions associated with typical stationary operational activities at the Project site. The typical Project-related stationary operational sources are expected to include architectural coatings, consumer products, landscape maintenance equipment, emissions associated with natural gas and electricity, and mobile source emissions. This report assumes the Project-related operational emission source activity will function 24-hours daily for seven days per week. It is expected that the Project construction emission sources would include operations of tractors, excavators, graders, dozers, scrapers, forklifts, generator sets, welders, paving equipment, and air compressors.

EXHIBIT 1-A: LOCATION MAP

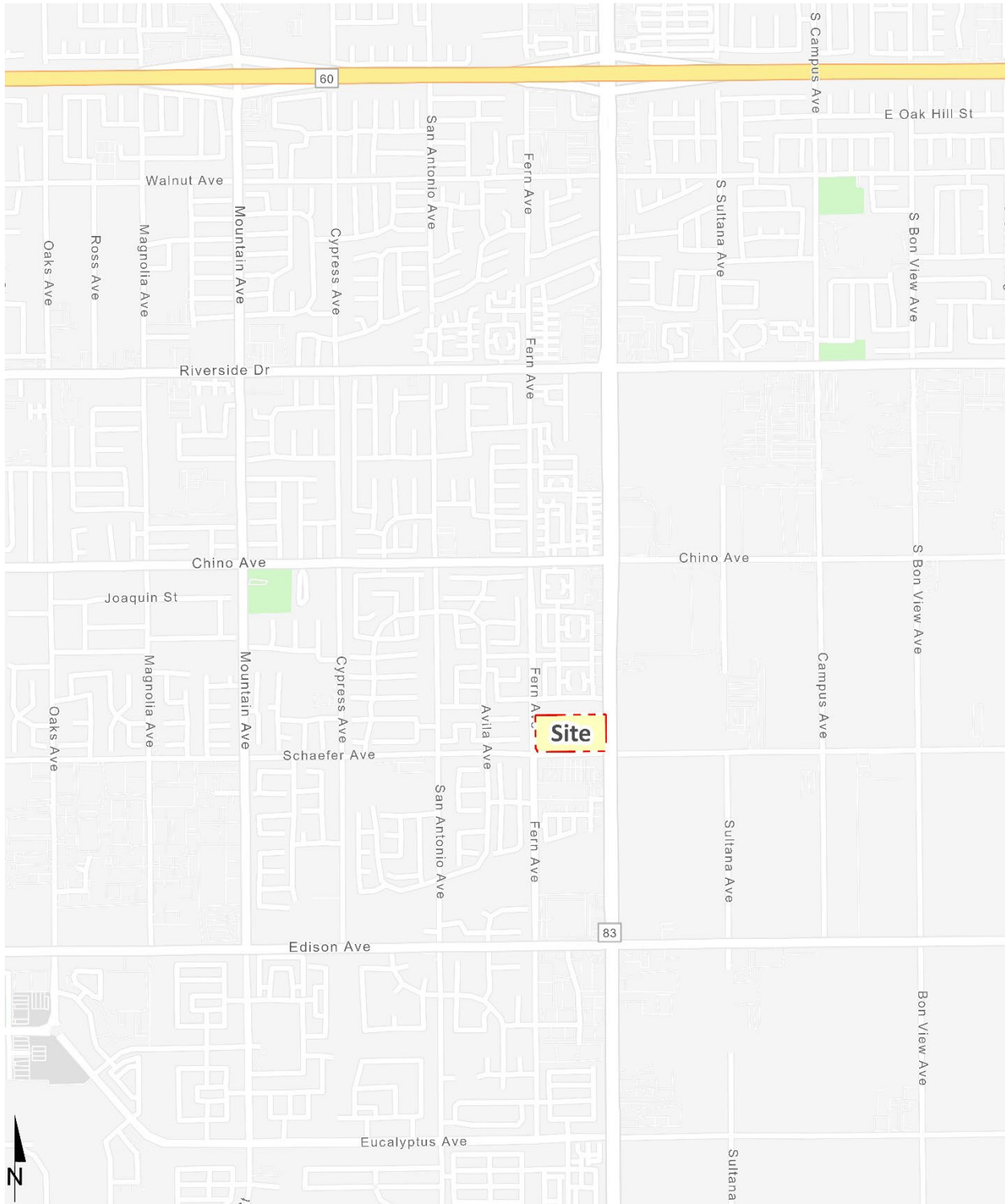
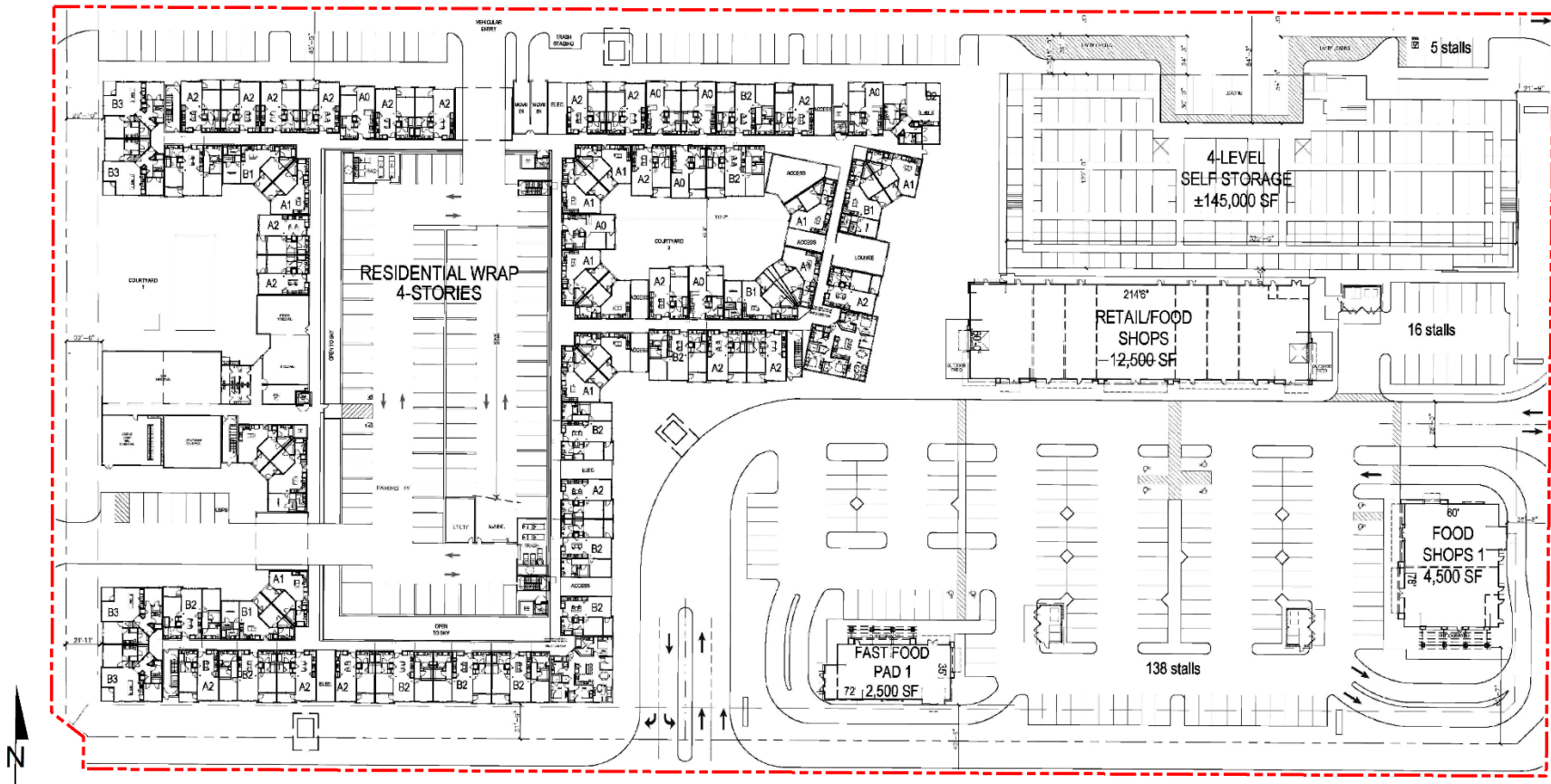


EXHIBIT 1-B: PRELIMINARY SITE PLAN



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2 AIR QUALITY SETTING

This section provides an overview of the existing air quality conditions in the Project area and region.

2.1 SOUTH COAST AIR BASIN

The Project site is located in the South Coast Air Basin (SCAB) within the jurisdiction of SCAQMD (5). The SCAQMD was created by the 1977 Lewis-Presley Air Quality Management Act, which merged four county air pollution control bodies into one regional district. Under the Act, the SCAQMD is responsible for bringing air quality in areas under its jurisdiction into conformity with federal and state air quality standards. As previously stated, the Project site is located within the SCAB, a 6,745-square mile subregion of the SCAQMD, which includes the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County.

The SCAB is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east, and the San Diego Air Basin to the south.

2.2 REGIONAL CLIMATE

The regional climate has a substantial influence on air quality in the SCAB. In addition, the temperature, wind, humidity, precipitation, and amount of sunshine influence the air quality.

The annual average temperatures throughout the SCAB vary from the low to middle 60s degrees Fahrenheit (°F). Due to a decreased marine influence, the eastern portion of the SCAB shows greater variability in average annual minimum and maximum temperatures. January is the coldest month throughout the SCAB, with average minimum temperatures of 47°F in downtown Los Angeles and 36°F in San Bernardino. All portions of the SCAB have recorded maximum temperatures above 100°F.

Although the climate of the SCAB can be characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of SCAB climate. Humidity restricts visibility in the SCAB, and the conversion of sulfur dioxide (SO₂) to sulfates (SO₄) is heightened in air with high relative humidity. The marine layer provides an environment for that conversion process, especially during the spring and summer months. The annual average relative humidity within the SCAB is 71% along the coast and 59% inland. Since the ocean effect is dominant, periods of heavy early morning fog are frequent and low stratus clouds are a characteristic feature. These effects decrease with distance from the coast.

More than 90% of the SCAB's rainfall occurs from November through April. The annual average rainfall varies from approximately nine inches in Riverside to fourteen inches in downtown Los Angeles. Monthly and yearly rainfall totals are extremely variable. Summer rainfall usually consists of widely scattered thunderstorms near the coast and slightly heavier shower activity in the eastern portion of the SCAB with frequency being higher near the coast.

Due to its generally clear weather, about three-quarters of available sunshine is received in the SCAB. The remaining one-quarter is absorbed by clouds. The ultraviolet portion of this abundant radiation is a key factor in photochemical reactions. On the shortest day of the year, there are approximately 10 hours of possible sunshine, and on the longest day of the year, there are approximately 14½ hours of possible sunshine.

The importance of wind to air pollution is considerable. The direction and speed of the wind determines the horizontal dispersion and transport of the air pollutants. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed “Santa Anas” each year. During the dry season, which coincides with the months of maximum photochemical smog concentrations, the wind flow is bimodal, typified by a daytime onshore sea breeze and a nighttime offshore drainage wind. Summer wind flows are created by the pressure differences between the relatively cold ocean and the unevenly heated and cooled land surfaces that modify the general northwesterly wind circulation over southern California. Nighttime drainage begins with the radiational cooling of the mountain slopes. Heavy, cool air descends the slopes and flows through the mountain passes and canyons as it follows the lowering terrain toward the ocean. Another characteristic wind regime in the SCAB is the “Catalina Eddy,” a low level cyclonic (counterclockwise) flow centered over Santa Catalina Island which results in an offshore flow to the southwest. On most spring and summer days, some indication of an eddy is apparent in coastal sections.

In the SCAB, there are two distinct temperature inversion structures that control vertical mixing of air pollution. During the summer, warm high-pressure descending (subsiding) air is undercut by a shallow layer of cool marine air. The boundary between these two layers of air is a persistent marine subsidence/inversion. This boundary prevents vertical mixing which effectively acts as an impervious lid to pollutants over the entire SCAB. The mixing height for the inversion structure is normally situated 1,000 to 1,500 feet above mean sea level.

A second inversion-type forms in conjunction with the drainage of cool air off the surrounding mountains at night followed by the seaward drift of this pool of cool air. The top of this layer forms a sharp boundary with the warmer air aloft and creates nocturnal radiation inversions. These inversions occur primarily in the winter, when nights are longer and onshore flow is weakest. They are typically only a few hundred feet above mean sea level. These inversions effectively trap pollutants, such as nitrogen oxides (NO_x) and carbon monoxide (CO) from vehicles, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants along the coastline.

2.3 WIND PATTERNS AND PROJECT LOCATION

The distinctive climate of the Project area and the SCAB is determined by its terrain and geographical location. The SCAB is located in a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean in the southwest quadrant with high mountains forming the remainder of the perimeter.

Wind patterns across the south coastal region are characterized by westerly and southwesterly onshore winds during the day and easterly or northeasterly breezes at night. Winds are characteristically light although the speed is somewhat greater during the dry summer months than during the rainy winter season.

2.4 CRITERIA POLLUTANTS

Criteria pollutants are pollutants that are regulated through the development of human health based and/or environmentally based criteria for setting permissible levels. Criteria pollutants, their typical sources, and health effects are identified below (6):

TABLE 2-1: CRITERIA POLLUTANTS

Criteria Pollutant	Description	Sources	Health Effects
CO	CO is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest during the winter morning, when little to no wind and surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone (O ₃), motor vehicles operating at slow speeds are the primary source of CO in the SCAB. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections.	Any source that burns fuel such as automobiles, trucks, heavy construction equipment, farming equipment and residential heating.	Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of decreased oxygen (O ₂) supply to the heart. Inhaled CO has no direct toxic effect on the lungs but exerts its effect on tissues by interfering with O ₂ transport and competing with O ₂ to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for O ₂ supply can be adversely affected by exposure to CO. Individuals most at risk include fetuses, patients with diseases involving heart and blood vessels, and patients with chronic hypoxemia (O ₂ deficiency) as seen at high altitudes.
SO ₂	SO ₂ is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant	Coal or oil burning power plants and industries,	A few minutes of exposure to low levels of SO ₂ can result in airway constriction in some

Criteria Pollutant	Description	Sources	Health Effects
	<p>mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO₂ oxidizes in the atmosphere, it forms SO₄. Collectively, these pollutants are referred to as sulfur oxides (SO_x).</p>	<p>refineries, diesel engines</p>	<p>asthmatics, all of whom are sensitive to its effects. In asthmatics, increase in resistance to air flow, as well as reduction in breathing capacity leading to severe breathing difficulties, are observed after acute exposure to SO₂. In contrast, healthy individuals do not exhibit similar acute responses even after exposure to higher concentrations of SO₂.</p> <p>Animal studies suggest that despite SO₂ being a respiratory irritant, it does not cause substantial lung injury at ambient concentrations. However, very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract.</p> <p>Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient SO₂ levels. In these studies, efforts to separate the effects of SO₂ from those of fine particles have not been successful. It is not clear whether the two pollutants act synergistically, or one pollutant alone is the predominant factor.</p>
NO _x	<p>NO_x consist of nitric oxide (NO), nitrogen dioxide (NO₂) and nitrous oxide (N₂O) and are formed when nitrogen (N₂) combines with O₂. Their lifespan in the atmosphere ranges from</p>	<p>Any source that burns fuel such as automobiles, trucks, heavy construction equipment, farming</p>	<p>Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is</p>

Criteria Pollutant	Description	Sources	Health Effects
	<p>one to seven days for nitric oxide and nitrogen dioxide, to 170 years for nitrous oxide. NO_x is typically created during combustion processes and are major contributors to smog formation and acid deposition. NO₂ is a criteria air pollutant and may result in numerous adverse health effects; it absorbs blue light, resulting in a brownish-red cast to the atmosphere and reduced visibility. Of the seven types of nitrogen oxide compounds, NO₂ is the most abundant in the atmosphere. As ambient concentrations of NO₂ are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO₂ than those indicated by regional monitoring station.</p>	<p>equipment and residential heating.</p>	<p>associated with long-term exposure to NO₂ at levels found in homes with gas stoves, which are higher than ambient levels found in Southern California. Increase in resistance to air flow and airway contraction is observed after short-term exposure to NO₂ in healthy subjects. Larger decreases in lung functions are observed in individuals with asthma or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups.</p> <p>In animals, exposure to levels of NO₂ considerably higher than ambient concentrations result in increased susceptibility to infections, possibly due to the observed changes in cells involved in maintaining immune functions. The severity of lung tissue damage associated with high levels of O₃ exposure increases when animals are exposed to a combination of O₃ and NO₂.</p>
O ₃	<p>O₃ is a highly reactive and unstable gas that is formed when VOCs and NO_x, both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. O₃ concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.</p>	<p>Formed when reactive organic gases (ROG) and NO_x react in the presence of sunlight. ROG sources include any source that burns fuels, (e.g., gasoline, natural gas, wood, oil) solvents, petroleum processing and</p>	<p>Individuals exercising outdoors, children, and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible sub-groups for O₃ effects. Short-term exposure (lasting for a few hours) to O₃ at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased</p>

Criteria Pollutant	Description	Sources	Health Effects
		storage and pesticides.	<p>susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Elevated O₃ levels are associated with increased school absences. In recent years, a correlation between elevated ambient O₃ levels and increases in daily hospital admission rates, as well as mortality, has also been reported. An increased risk for asthma has been found in children who participate in multiple outdoor sports and live in communities with high O₃ levels.</p> <p>O₃ exposure under exercising conditions is known to increase the severity of the responses described above. Animal studies suggest that exposure to a combination of pollutants that includes O₃ may be more toxic than exposure to O₃ alone. Although lung volume and resistance changes observed after a single exposure diminish with repeated exposures, biochemical and cellular changes appear to persist, which can lead to subsequent lung structural changes.</p>
Particulate Matter	PM ₁₀ : A major air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols. Particulate matter pollution is a major cause of reduce visibility (haze) which is caused by the scattering of light and consequently the significant reduction air clarity. The size of the particles (10 microns or smaller, about 0.0004 inches or less) allows them to easily enter the lungs where they may be	Sources of PM ₁₀ include road dust, windblown dust and construction. Also formed from other pollutants (acid rain, NO _x , SO _x , organics). Incomplete combustion of any fuel. PM _{2.5} comes from	A consistent correlation between elevated ambient fine particulate matter (PM ₁₀ and PM _{2.5}) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. In

Criteria Pollutant	Description	Sources	Health Effects
	<p>deposited, resulting in adverse health effects. Additionally, it should be noted that PM₁₀ is considered a criteria air pollutant.</p> <p>PM_{2.5}: A similar air pollutant to PM₁₀ consisting of tiny solid or liquid particles which are 2.5 microns or smaller (which is often referred to as fine particles). These particles are formed in the atmosphere from primary gaseous emissions that include SO₄ formed from SO₂ release from power plants and industrial facilities and nitrates that are formed from NO_x release from power plants, automobiles, and other types of combustion sources. The chemical composition of fine particles highly depends on location, time of year, and weather conditions. PM_{2.5} is a criteria air pollutant.</p>	<p>fuel combustion in motor vehicles, equipment, and industrial sources, residential and agricultural burning. Also formed from reaction of other pollutants (acid rain, NO_x, SO_x, organics).</p>	<p>recent years, some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in lifespan, and an increased mortality from lung cancer.</p> <p>Daily fluctuations in PM_{2.5} concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to school and kindergarten absences, to a decrease in respiratory lung volumes in normal children, and to increased medication use in children and adults with asthma. Recent studies show lung function growth in children is reduced with long term exposure to particulate matter.</p> <p>The elderly, people with pre-existing respiratory or cardiovascular disease, and children appear to be more susceptible to the effects of high levels of PM₁₀ and PM_{2.5}.</p>
VOC	<p>VOCs are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not form O₃ to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the</p>	<p>Organic chemicals are widely used as ingredients in household products. Paints, varnishes, and wax all contain organic solvents, as do many cleaning, disinfecting, cosmetic, degreasing and hobby products. Fuels are made up of organic chemicals. All of these products can release organic</p>	<p>Breathing VOCs can irritate the eyes, nose, and throat, can cause difficulty breathing and nausea, and can damage the central nervous system as well as other organs. Some VOCs can cause cancer. Not all VOCs have all these health effects, though many have several.</p>

Criteria Pollutant	Description	Sources	Health Effects
	solvents used in paints. Exceptions to the VOC designation include CO, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. VOCs are a criteria pollutant since they are a precursor to O ₃ , which is a criteria pollutant. The terms VOC and ROG (see below) interchangeably.	compounds while you are using them, and, to some degree, when they are stored.	
ROG	Similar to VOC, ROGs are also precursors in forming O ₃ and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROG and NO _x react in the presence of sunlight. ROGs are a criteria pollutant since they are a precursor to O ₃ , which is a criteria pollutant. The terms ROG and VOC (see previous) interchangeably.	Sources similar to VOCs.	Health effects similar to VOCs.
Lead (Pb)	Pb is a heavy metal that is highly persistent in the environment and is considered a criteria pollutant. In the past, the primary source of Pb in the air was emissions from vehicles burning leaded gasoline. The major sources of Pb emissions are ore and metals processing, particularly Pb smelters, and piston-engine aircraft operating on leaded aviation gasoline. Other stationary sources include waste incinerators, utilities, and lead-acid battery manufacturers. It should be noted that the Project does not include operational activities such as metal processing or Pb acid battery manufacturing. As such, the Project is not anticipated to	Metal smelters, resource recovery, leaded gasoline, deterioration of Pb paint.	Fetuses, infants, and children are more sensitive than others to the adverse effects of Pb exposure. Exposure to low levels of Pb can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased Pb levels are associated with increased blood pressure. Pb poisoning can cause anemia, lethargy, seizures, and death; although it appears that there are no direct effects of Pb on the respiratory system. Pb can be

Criteria Pollutant	Description	Sources	Health Effects
	generate a quantifiable amount of Pb emissions.		stored in the bone from early age environmental exposure, and elevated blood Pb levels can occur due to breakdown of bone tissue during pregnancy, hyperthyroidism (increased secretion of hormones from the thyroid gland) and osteoporosis (breakdown of bony tissue). Fetuses and breast-fed babies can be exposed to higher levels of Pb because of previous environmental Pb exposure of their mothers.
Odor	Odor means the perception experienced by a person when one or more chemical substances in the air come into contact with the human olfactory nerves (7).	Odors can come from many sources including animals, human activities, industry, natures, and vehicles.	Offensive odors can potentially affect human health in several ways. First, odorant compounds can irritate the eye, nose, and throat, which can reduce respiratory volume. Second, studies have shown that the VOCs that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system. Finally, unpleasant odors can trigger memories or attitudes linked to unpleasant odors, causing cognitive and emotional effects such as stress.

2.5 EXISTING AIR QUALITY

Existing air quality is measured at established SCAQMD air quality monitoring stations. Monitored air quality is evaluated in the context of ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect are shown in Table 2-2 (8).

The determination of whether a region's air quality is healthful or unhealthful is determined by comparing contaminant levels in ambient air samples to the state and federal standards. At the time of this AQIA, the most recent state and federal standards were updated by CARB on May 4, 2016 and are presented in Table 2-2. The air quality in a region is considered to be in attainment by the state if the measured ambient air pollutant levels for O₃, CO (except 8-hour Lake Tahoe), SO₂ (1 and 24 hour), NO₂, PM₁₀, and PM_{2.5} are not to be exceeded. All others are not to be equaled or exceeded. It should be noted that the three-year period is presented for informational purposes and is not the basis for how the State assigns attainment status. Attainment status for a pollutant means that the SCAQMD meets the standards set by the EPA or the California EPA (CalEPA). Conversely, nonattainment means that an area has monitored air quality that does not meet the NAAQS or CAAQS standards. In order to improve air quality in nonattainment areas, a State Implementation Plan (SIP) is drafted by CARB. The SIP outlines the measures that the state will take to improve air quality. Once nonattainment areas meet the standards and additional redesignation requirements, the EPA will designate the area as a maintenance area (9).

TABLE 2-2: AMBIENT AIR QUALITY STANDARDS (1 OF 2)

Ambient Air Quality Standards						
Pollutant	Averaging Time	California Standards ¹		National Standards ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
Ozone (O ₃) ⁸	1 Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m ³)		0.070 ppm (137 µg/m ³)		
Respirable Particulate Matter (PM10) ⁹	24 Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m ³		—		
Fine Particulate Matter (PM2.5) ⁹	24 Hour	—	—	35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	12.0 µg/m ³		
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m ³)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m ³)		9 ppm (10 mg/m ³)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		—	—	
Nitrogen Dioxide (NO ₂) ¹⁰	1 Hour	0.18 ppm (339 µg/m ³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m ³)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)		0.053 ppm (100 µg/m ³)	Same as Primary Standard	
Sulfur Dioxide (SO ₂) ¹¹	1 Hour	0.25 ppm (655 µg/m ³)	Ultraviolet Fluorescence	75 ppb (196 µg/m ³)	—	Ultraviolet Fluorescence; Spectrophotometry (Parosanine Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m ³)	
	24 Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (for certain areas) ¹¹	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas) ¹¹	—	
Lead ^{12,13}	30 Day Average	1.5 µg/m ³	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m ³ (for certain areas) ¹²	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m ³		
Visibility Reducing Particles ¹⁴	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m ³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence			
Vinyl Chloride ¹²	24 Hour	0.01 ppm (26 µg/m ³)	Gas Chromatography			

See footnotes on next page ...

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TABLE 2-2: AMBIENT AIR QUALITY STANDARDS (2 OF 2)

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above $150 \mu\text{g}/\text{m}^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.
8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from $15 \mu\text{g}/\text{m}^3$ to $12.0 \mu\text{g}/\text{m}^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at $35 \mu\text{g}/\text{m}^3$, as was the annual secondary standard of $15 \mu\text{g}/\text{m}^3$. The existing 24-hour PM10 standards (primary and secondary) of $150 \mu\text{g}/\text{m}^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
11. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard ($1.5 \mu\text{g}/\text{m}^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

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2.6 REGIONAL AIR QUALITY

Air pollution contributes to a wide variety of adverse health effects. The EPA has established NAAQS for six of the most common air pollutants: CO, Pb, O₃, particulate matter (PM₁₀ and PM_{2.5}), NO₂, and SO₂ which are known as criteria pollutants. The SCAQMD monitors levels of various criteria pollutants at 37 permanent monitoring stations and 5 single-pollutant source Pb air monitoring sites throughout the air district (10). On December 28, 2021, CARB posted the proposed 2021 amendments to the state and national area designations. See Table 2-3 for attainment designations for the SCAB (11). Appendix 2.1 provides geographic representation of the state and federal attainment status for applicable criteria pollutants within the SCAB.

TABLE 2-3: ATTAINMENT STATUS OF CRITERIA POLLUTANTS IN THE SCAB

Criteria Pollutant	State Designation	Federal Designation
O ₃ – 1-hour standard	Nonattainment	--
O ₃ – 8-hour standard	Nonattainment	Nonattainment
PM ₁₀	Nonattainment	Attainment
PM _{2.5}	Nonattainment	Nonattainment
CO	Attainment	Unclassifiable/Attainment
NO ₂	Attainment	Unclassifiable/Attainment
SO ₂	Attainment	Unclassifiable/Attainment
Pb ¹	Attainment	Unclassifiable/Attainment

Note: See Appendix 2.1 for a detailed map of State/National Area Designations within the SCAB
 "--" = The national 1-hour O₃ standard was revoked effective June 15, 2005.

2.7 LOCAL AIR QUALITY

The SCAQMD has designated general forecast areas and air monitoring areas (referred to as Source Receptor Areas [SRA]) throughout the district in order to provide Southern California residents about the air quality conditions. The Project site is located within SRA 33. Within SRA 33, the CA-60 Near Road and I-10 Near Road monitoring stations, located approximately 2.7 miles and 8.5 miles northeast, respectively of the Project site, reports air quality statistics for CO, NO₂, and PM_{2.5}. It should be noted that these monitoring stations do not provide data for O₃ or PM₁₀. As such, the next nearest monitoring stations will be utilized. Data for O₃ was obtained from the Pomona/Walnut Valley monitoring station, located in SRA 10, approximately 6.9 miles northwest of the Project site. Data for PM₁₀ was obtained from the Corona/Norco Area monitoring station, located in SRA 22 approximately 7.4 miles southeast, for 2020 has been reported in Table 2-4. PM₁₀ air quality conditions were not reported in SRA 22 for the 2021 and 2022 years. As such, data from the Metropolitan Riverside County 1 monitoring station, located in SRA 23 approximately 13.4 miles east from the Project site, has been used. It should be noted that data from Pomona/Walnut Valley, Corona/Norco Area, and Metropolitan Riverside County 1

¹ The Federal nonattainment designation for lead is only applicable towards the Los Angeles County portion of the SCAB.

monitoring stations were utilized in lieu of the CA-60 Near Road and I-10 Near Road monitoring stations only in instances where data was not available.

The most recent three (3) years of data available is shown on Table 2-4 and identifies the number of days ambient air quality standards were exceeded for the study area, which is considered to be representative of the local air quality at the Project site. Data for O₃, CO, NO₂, PM₁₀, and PM_{2.5} for 2020 through 2022 was obtained from the SCAQMD Air Quality Data Tables (12). Additionally, data for SO₂ has been omitted as attainment is regularly met in the SCAB and few monitoring stations measure SO₂ concentrations.

TABLE 2-4: PROJECT AREA AIR QUALITY MONITORING SUMMARY 2020-2022

Pollutant	Standard	Year		
		2020	2021	2022
O ₃				
Maximum Federal 1-Hour Concentration (ppm)		0.180	0.120	0.131
Maximum Federal 8-Hour Concentration (ppm)		0.124	0.092	0.096
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	51	27	28
Number of Days Exceeding State/Federal 8-Hour Standard	> 0.070 ppm	84	43	49
CO				
Maximum Federal 1-Hour Concentration	> 35 ppm	1.5	2.8	1.3
Maximum Federal 8-Hour Concentration	> 20 ppm	1.2	1.4	1.0
NO ₂				
Maximum Federal 1-Hour Concentration	> 0.100 ppm	0.102	0.080	0.085
Annual Federal Standard Design Value		0.029	0.030	0.029
PM ₁₀				
Maximum Federal 24-Hour Concentration (µg/m ³)	> 150 µg/m ³	100	76	153
Annual Federal Arithmetic Mean (µg/m ³)		39.1	34.2	37.0
Number of Days Exceeding Federal 24-Hour Standard	> 150 µg/m ³	0	0	0
Number of Days Exceeding State 24-Hour Standard	> 50 µg/m ³	10	16	55
PM _{2.5}				
Maximum Federal 24-Hour Concentration (µg/m ³)	> 35 µg/m ³	53.10	65.40	41.8
Annual Federal Arithmetic Mean (µg/m ³)	> 12 µg/m ³	14.36	14.48	12.20
Number of Days Exceeding Federal 24-Hour Standard	> 35 µg/m ³	4	13	1

ppm = Parts Per Million

µg/m³ = Microgram per Cubic Meter

Source: Data for O₃, CO, NO₂, PM₁₀, and PM_{2.5} was obtained from SCAQMD Air Quality Data Tables.

2.8 REGULATORY BACKGROUND

2.8.1 FEDERAL REGULATIONS

The EPA is responsible for setting and enforcing the NAAQS for O₃, CO, NO_x, SO₂, PM₁₀, and Pb (13). The EPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources outside state waters (Outer Continental Shelf). The EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of CARB.

The Federal Clean Air Act (CAA) was first enacted in 1955 and has been amended numerous times in subsequent years (1963, 1965, 1967, 1970, 1977, and 1990). The CAA establishes the federal air quality standards, the NAAQS, and specifies future dates for achieving compliance (14). The CAA also mandates that states submit and implement SIPs for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met.

The 1990 amendments to the CAA that identify specific emission reduction goals for areas not meeting the NAAQS require a demonstration of reasonable further progress toward attainment and incorporate additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA most directly applicable to the development of the Project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions) (15) (16). Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants O₃, NO₂, SO₂, PM₁₀, CO, PM_{2.5}, and Pb. The NAAQS were amended in July 1997 to include an additional standard for O₃ and to adopt a NAAQS for PM_{2.5}. Table 2-3 (previously presented) provides the NAAQS within the SCAB.

Mobile source emissions are regulated in accordance with Title II provisions. These provisions require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. Automobile manufacturers are also required to reduce tailpipe emissions of hydrocarbons and NO_x. NO_x is a collective term that includes all forms of NO_x which are emitted as byproducts of the combustion process.

2.8.2 CALIFORNIA REGULATIONS

CARB

CARB, which became part of CalEPA in 1991, is responsible for ensuring implementation of the California Clean Air Act (AB 2595), responding to the federal CAA, and for regulating emissions from consumer products and motor vehicles. AB 2595 mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the state ambient air quality standards by the earliest practical date. CARB established the CAAQS for all pollutants for which the federal government has NAAQS and, in addition, establishes standards for SO₄, visibility, hydrogen sulfide (H₂S), and vinyl chloride (C₂H₃Cl). However, at this time, H₂S and C₂H₃Cl are not measured at any monitoring stations in the SCAB

because they are not considered to be a regional air quality problem. Generally, the CAAQS are more stringent than the NAAQS (17) (13).

Local air quality management districts, such as the SCAQMD, regulate air emissions from stationary sources such as commercial and industrial facilities. All air pollution control districts have been formally designated as attainment or non-attainment for each CAAQS.

Serious non-attainment areas are required to prepare Air Quality Management Plans (AQMP) that include specified emission reduction strategies in an effort to meet clean air goals. These plans are required to include:

- Application of Best Available Retrofit Control Technology to existing sources;
- Developing control programs for area sources (e.g., architectural coatings and solvents) and indirect sources (e.g. motor vehicle use generated by residential and commercial development);
- A District permitting system designed to allow no net increase in emissions from any new or modified permitted sources of emissions;
- Implementing reasonably available transportation control measures and assuring a substantial reduction in growth rate of vehicle trips and miles traveled;
- Significant use of low emissions vehicles by fleet operators;
- Sufficient control strategies to achieve a 5% or more annual reduction in emissions or 15% or more in a period of three years for ROG_s, NO_x, CO and PM₁₀. However, air basins may use alternative emission reduction strategy that achieves a reduction of less than 5% per year under certain circumstances.

TITLE 24 ENERGY EFFICIENCY STANDARDS AND CALIFORNIA GREEN BUILDING STANDARDS

California Code of Regulations (CCR) Title 24 Part 6: The California Energy Code was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption.

The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. CCR, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on August 1, 2009, and is administered by the California Building Standards Commission.

CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Code Standards that became effective on January 1, 2023. The CEC anticipates that the 2022 energy code will provide \$1.5 billion in consumer benefits and reduce GHG emissions by 10 million metric tons (18). The Project would be required to comply with the applicable standards in place at the time plan check submittals are made. These require, among other items (19):

NONRESIDENTIAL MANDATORY MEASURES

- Short-term bicycle parking. If the new project or an additional alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (5.106.4.1.1).
- Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5% of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility (5.106.4.1.2).
- Designated parking for clean air vehicles. In new projects or additions to alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2 (5.106.5.2).
- EV charging stations. New construction shall facilitate the future installation of EV supply equipment. The compliance requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load. The number of spaces to be provided for is contained in Table 5.106.5.3.3 (5.106.5.3). Additionally, Table 5.106.5.4.1 specifies requirements for the installation of raceway conduit and panel power requirements for medium- and heavy-duty EV supply equipment for warehouses, grocery stores, and retail stores.
- Outdoor light pollution reduction. Outdoor lighting systems shall be designed to meet the backlight, upright and glare ratings per Table 5.106.8 (5.106.8).
- Construction waste management. Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1, 5.405.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent (5.408.1).
- Excavated soil and land clearing debris. 100% of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reuse or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed (5.408.3).
- Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive (5.410.1).
- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:
 - Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush (5.303.3.1)
 - Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush (5.303.3.2.1). The effective flush volume of floor-mounted or other urinals shall not exceed 0.5 gallons per flush (5.303.3.2.2).

- Showerheads. Single showerheads shall have a minimum flow rate of not more than 1.8 gallons per minute and 80 psi (5.303.3.3.1). When a shower is served by more than one showerhead, the combine flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi (5.303.3.3.2).
- Faucets and fountains. Nonresidential lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi (5.303.3.4.1). Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute of 60 psi (5.303.3.4.2). Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute (5.303.3.4.3). Metering faucets shall not deliver more than 0.20 gallons per cycle (5.303.3.4.4). Metering faucets for wash fountains shall have a maximum flow rate not more than 0.20 gallons per cycle (5.303.3.4.5).
- Outdoor potable water uses in landscaped areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent (5.304.1).
- Water meters. Separate submeters or metering devices shall be installed for new buildings or additions in excess of 50,000 sf or for excess consumption where any tenant within a new building or within an addition that is project to consume more than 1,000 gallons per day (GPD) (5.303.1.1 and 5.303.1.2).
- Outdoor water uses in rehabilitated landscape projects equal or greater than 2,500 sf. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 sf requiring a building or landscape permit (5.304.3).
- Commissioning. For new buildings 10,000 sf and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements (5.410.2).

2.8.3 AQMP

Currently, the NAAQS and CAAQS are exceeded in most parts of the SCAB. In response, the SCAQMD has adopted a series of AQMP to meet the state and federal ambient air quality standards (20). AQMPs are updated regularly to ensure an effective reduction in emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy. A detailed discussion on the AQMP and Project consistency with the AQMP is provided in Section 3.10.

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3 PROJECT AIR QUALITY IMPACT

3.1 INTRODUCTION

This study quantifies air quality emissions generated by construction and operation of the Project and addresses whether the Project conflicts with implementation of the SCAQMD's AQMP and Lead Agency planning regulations. The analysis of Project-generated air emissions determines whether the Project would result in a cumulatively considerable net increase of any criteria pollutant for which the SCAB is in non-attainment under an applicable NAAQS and CAAQS. Additionally, the Project has been evaluated to determine whether the Project would expose sensitive receptors to substantial pollutant concentrations and the impacts of odors. The significance of these potential impacts is described in the following sections.

3.2 STANDARDS OF SIGNIFICANCE

The criteria used to determine the significance of potential Project-related air quality impacts are taken from the *CEQA Guidelines* (14 CCR §§15000, et seq.). Based on these thresholds, a project would result in a significant impact related to air quality if it would (2):

- Conflict with or obstruct implementation of the applicable air quality plan.
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard.
- Expose sensitive receptors to substantial pollutant concentrations.
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The SCAQMD has also developed regional significance thresholds for other regulated pollutants, as summarized at Table 3-1 (21). The SCAQMD's *CEQA Air Quality Significance Thresholds* (March 2023) indicate that any projects in the SCAB with daily emissions that exceed any of the indicated thresholds should be considered as having an individually and cumulatively significant air quality impact.

TABLE 3-1: MAXIMUM DAILY REGIONAL EMISSIONS THRESHOLDS

Pollutant	Regional Construction Threshold	Regional Operational Thresholds
NO _x	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM ₁₀	150 lbs/day	150 lbs/day
PM _{2.5}	55 lbs/day	55 lbs/day
SO _x	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Pb	3 lbs/day	3 lbs/day

lbs/day = Pounds Per Day

3.3 MODELS EMPLOYED TO ANALYZE AIR QUALITY

3.3.1 CALFEEMOD

Land uses such as the Project affect air quality through construction-source and operational-source emissions.

In May 2023 the California Air Pollution Control Officers Association (CAPCOA) in conjunction with other California air districts, including SCAQMD, released the latest version of CalFEEMod version 2022.1.1.12. The purpose of this model is to calculate construction-source and operational-source criteria pollutant (VOCs, NO_x, SO_x, CO, PM₁₀, and PM_{2.5}) and GHG emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures (22). Accordingly, the latest version of CalFEEMod has been used for this Project to determine construction and operational air quality emissions. Output from the model runs for both construction and operational activity are provided in Appendices 3.1 through 3.2.

3.4 CONSTRUCTION EMISSIONS

3.4.1 CONSTRUCTION ACTIVITIES

Construction activities associated with the Project would result in emissions of VOCs, NO_x, SO_x, CO, PM₁₀, and PM_{2.5}. Construction related emissions are expected from the following construction activities:

- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating

GRADING ACTIVITIES

Dust is typically a major concern during grading activities. Because such emissions are not amenable to collection and discharge through a controlled source, they are called “fugitive emissions”. Fugitive dust emissions rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). CalFEEMod was utilized to calculate fugitive dust emissions resulting from this phase of activity. The Project is anticipated to balance. As such, the Project would not require import/export.

ON-ROAD TRIPS

Construction generates on-road vehicle emissions from vehicle usage for workers, vendors, and haul trucks commuting to and from the site. The number of worker, vendor, and hauling trips are presented below in Table 3-2. Worker trips are based on CalFEEMod defaults. It should be noted that for vendor trips, specifically, CalFEEMod only assigns vendor trips to the Building Construction

phase. Vendor trips would likely occur during all phases of construction. As such, the CalEEMod defaults for vendor trips have been adjusted based on a ratio of the total vendor trips to the number of days of each subphase of activity.

TABLE 3-2: CONSTRUCTION TRIP ASSUMPTIONS

Construction Activity	Worker Trips Per Day	Vendor Trips Per Day	Hauling Trips Per Day
Site Preparation	18	3	0
Grading	20	9	0
Building Construction	272	45	0
Paving	15	0	0
Architectural Coating	54	0	0

3.4.2 CONSTRUCTION DURATION

For purposes of analysis, construction of Project is expected to commence in April 2024 and would last through December 2024. The construction schedule utilized in the analysis, shown in Table 3-3, represents a “worst-case” analysis scenario should construction occur any time after the respective dates since emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent². The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per *CEQA Guidelines* (2).

TABLE 3-3: CONSTRUCTION DURATION

Construction Activity	Start Date	End Date	Working Days
Site Preparation	04/02/2024	04/15/2024	10
Grading	04/16/2024	05/27/2024	30
Building Construction	05/28/2024	12/23/2024	150
Paving	11/26/2024	12/23/2024	20
Architectural Coating	10/29/2024	12/23/2024	40

² As shown in the CalEEMod User’s Guide Version 2022.1, Section 4.3 “Off-Road Equipment” as the analysis year increases, emission factors for the same equipment pieces decrease due to the natural turnover of older equipment being replaced by newer less polluting equipment and new regulatory requirements.

3.4.3 CONSTRUCTION EQUIPMENT

Consistent with industry standards and typical construction practices, each piece of equipment listed in Table 3-4 will operate up to a total of eight (8) hours per day, or more than two-thirds of the period during which construction activities are allowed pursuant to the code.

TABLE 3-4: CONSTRUCTION EQUIPMENT ASSUMPTIONS

Construction Activity	Equipment ¹	Amount	Hours Per Day
Site Preparation	Rubber Tired Dozers	3	8
	Crawler Tractors	4	8
Grading	Excavators	2	8
	Graders	1	8
	Rubber Tired Dozers	1	8
	Scrapers	2	8
	Crawler Tractors	2	8
Building Construction	Cranes	2	8
	Forklifts	5	8
	Generator Sets	2	8
	Tractors/Loaders/Backhoes	5	8
	Welders	2	8
Paving	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coating	Air Compressors	1	8

¹ In order to account for fugitive dust emissions, Crawler Tractors were used in lieu of Tractors/Loaders/Backhoes during the site preparation and grading phases of Project construction.

3.4.4 CONSTRUCTION EMISSIONS SUMMARY

IMPACTS WITHOUT MITIGATION

The estimated maximum daily construction emissions without mitigation are summarized on Table 3-5. Detailed construction model outputs are presented in Appendix 3.1. Under the assumed scenarios, emissions resulting from the Project construction will not exceed the thresholds established by the SCAQMD for emissions of any criteria pollutant.

TABLE 3-5: OVERALL CONSTRUCTION EMISSIONS SUMMARY

Year	Emissions (lbs/day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Summer						
2024	4.59	42.71	49.37	0.06	8.18	4.82
Winter						
2024	68.75	35.00	59.73	0.07	6.27	2.47
Maximum Daily Emissions	68.75	42.71	59.73	0.07	8.18	4.82
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	NO	NO	NO	NO	NO	NO

Source: CalEEMod construction-source (unmitigated) emissions are presented in Appendix 3.1.

3.5 OPERATIONAL EMISSIONS

Operational activities associated with the Project would result in emissions of VOCs, NO_x, SO_x, CO, PM₁₀, and PM_{2.5}. Operational emissions are expected from the following primary sources:

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions

3.5.1 AREA SOURCE EMISSIONS

ARCHITECTURAL COATINGS

Over a period of time the buildings that are part of this Project would require maintenance and would therefore produce emissions resulting from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings. The emissions associated with architectural coatings were calculated using CalEEMod.

CONSUMER PRODUCTS

Consumer products include, but are not limited to detergents, cleaning compounds, polishes, personal care products, and lawn and garden products. Many of these products contain organic compounds which when released in the atmosphere can react to form ozone and other photochemically reactive pollutants. The emissions associated with use of consumer products were calculated based on defaults provided within CalEEMod.

LANDSCAPE MAINTENANCE EQUIPMENT

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. It should be noted that as October 9, 2021, Governor Gavin Newsom

signed AB 1346. The bill aims to ban the sale of new gasoline-powered equipment under 25 gross hp (known as small off-road engines [SOREs]) by 2024. For purposes of analysis, the emissions associated with landscape maintenance equipment were calculated based on assumptions provided in CalEEMod.

3.5.2 ENERGY SOURCE EMISSIONS

COMBUSTION EMISSIONS ASSOCIATED WITH ELECTRICITY

Criteria pollutant emissions are emitted through the generation of electricity. However, because electrical generating facilities for the Project area are located either outside the region (state) or offset through the use of pollution credits (RECLAIM) for generation within the SCAB, criteria pollutant emissions from offsite generation of electricity are excluded from the evaluation of significance. Based on information provided by the Project applicant, the site is also not expected to utilize natural gas for the building envelope, and therefore would not generate any emissions from direct energy consumption.

3.5.3 MOBILE SOURCE EMISSIONS

The Project related operational air quality emissions derive primarily from vehicle trips generated by the Project, including employee trips to and from the site and truck trips associated with the proposed uses. Trip characteristics available from the *Eden Mixed-Use (PL23-0111) Traffic Analysis* were utilized in this analysis (23).

FUGITIVE DUST RELATED TO VEHICULAR TRAVEL

Vehicles traveling on paved roads would be a source of fugitive emissions due to the generation of road dust inclusive of brake and tire wear particulates. The emissions estimate for travel on paved roads were calculated using CalEEMod.

3.5.4 OPERATIONAL EMISSIONS SUMMARY

As previously stated, CalEEMod utilizes summer and winter EMFAC2021 emission factors in order to derive vehicle emissions associated with Project operational activities, which vary by season. The estimated operational-source emissions are summarized on Table 3-6. Detailed operation model outputs for the Project are presented in Appendix 3.2. As shown on Table 3-6, the Project's daily regional emissions from on-going operations would not exceed the thresholds of significance for emissions of any criteria pollutant.

TABLE 3-6: SUMMARY OF PEAK OPERATIONAL EMISSIONS

Source	Emissions (lbs/day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Summer						
Mobile Source	25.90	24.30	228.00	0.52	43.70	11.30
Area Source	13.10	4.90	25.10	0.03	0.40	0.39
Energy Source	0.11	2.03	1.38	0.01	0.16	0.16
Project Maximum Daily Emissions	39.11	31.23	254.48	0.56	44.26	11.85
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	NO	NO	NO	NO	NO	NO
Winter						
Mobile Source	23.90	26.20	190.00	0.49	43.70	11.30
Area Source	10.50	4.68	1.99	0.03	0.38	0.38
Energy Source	0.11	2.03	1.38	0.01	0.16	0.16
Project Maximum Daily Emissions	34.51	32.91	193.37	0.53	44.24	11.84
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	NO	NO	NO	NO	NO	NO

Source: CalEEMod operational-source emissions are presented in Appendix 3.2.

3.6 LOCALIZED SIGNIFICANCE

BACKGROUND ON LST DEVELOPMENT

The analysis makes use of methodology included in the SCAQMD *Final Localized Significance Threshold Methodology* (LST Methodology). The SCAQMD has established that impacts to air quality are significant if there is a potential to contribute or cause localized exceedances of the federal and/or state ambient air quality standards (NAAQS/CAAQS). Collectively, these are referred to as Localized Significance Thresholds (LSTs).

The SCAQMD established LSTs in response to the SCAQMD Governing Board's Environmental Justice Initiative I-4³. LSTs represent the maximum emissions from a project that would not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest residence or sensitive receptor. The SCAQMD states that lead agencies can use the LSTs as another indicator of significance in its air quality impact analyses.

³ The purpose of SCAQMD's Environmental Justice program is to ensure that everyone has the right to equal protection from air pollution and fair access to the decision-making process that works to improve the quality of air within their communities. Further, the SCAQMD defines Environmental Justice as "...equitable environmental policymaking and enforcement to protect the health of all residents, regardless of age, culture, ethnicity, gender, race, socioeconomic status, or geographic location, from the health effects of air pollution."

LSTs were developed in response to environmental justice and health concerns raised by the public regarding exposure of individuals to criteria pollutants in local communities. To address the issue of localized significance, the SCAQMD adopted LSTs that show whether a project would cause or contribute to localized air quality impacts and thereby cause or contribute to potential localized adverse health effects. The analysis makes use of methodology included in the *LST Methodology* (24).

APPLICABILITY OF LSTs FOR THE PROJECT

For this Project, the appropriate SRA for the LST analysis is the SCAQMD Southwest San Bernardino Valley 1 (SRA 33). LSTs apply to CO, NO₂, PM₁₀, and PM_{2.5}. The SCAQMD produced look-up tables for projects less than or equal to 5 acres in size.

In order to determine the appropriate methodology for determining localized impacts that could occur as a result of Project-related construction, the following process is undertaken:

- Identify the maximum daily on-site emissions that would occur during construction activity:
 - The maximum daily on-site emissions could be based on information provided by the Project Applicant; or
 - The SCAQMD's *Fact Sheet for Applying CalEEMod to Localized Significance Thresholds* and *CalEEMod User's Guide Appendix A: Calculation Details for CalEEMod* can be used to determine the maximum site acreage that is actively disturbed based on the construction equipment fleet and equipment hours as estimated in CalEEMod (25) (26).
- If the total acreage disturbed is less than or equal to 5 acres per day, then the SCAQMD's screening look-up tables are utilized to determine if a Project has the potential to result in a significant impact. The look-up tables establish a maximum daily emissions threshold in lbs/day that can be compared to CalEEMod outputs.
- If the total acreage disturbed is greater than 5 acres per day, then LST impacts may still be conservatively evaluated using the LST look-up tables for a 5-acre disturbance area. Use of the 5-acre disturbance area thresholds can be used to show that even if the daily emissions from all construction activity were emitted within a 5-acre area, and therefore concentrated over a smaller area which would result in greater site adjacent concentrations, the impacts would still be less than significant if the applicable 5-acre thresholds are utilized.
- The *LST Methodology* presents mass emission rates for each SRA, project sizes of 1, 2, and 5 acres, and nearest receptor distances of 25, 50, 100, 200, and 500 meters. For project sizes between the values given, or with receptors at distances between the given receptors, the methodology uses linear interpolation to determine the thresholds.

EMISSIONS CONSIDERED

Based on SCAQMD's *LST Methodology*, emissions for concern during construction activities are on-site NO_x, CO, PM_{2.5}, and PM₁₀. The *LST Methodology* clearly states that "off-site mobile emissions from the Project should not be included in the emissions compared to LSTs (27)." As such, for purposes of the construction LST analysis, only emissions included in the CalEEMod "on-site" emissions outputs were considered.

MAXIMUM DAILY DISTURBED-ACREAGE

The “acres disturbed” for analytical purposes are based on specific equipment type for each subcategory of construction activity and the estimated maximum area a given piece of equipment can pass over in an 8-hour workday (as shown on Table 3-7). The equipment-specific grading rates are summarized in the SCAQMD’s *Fact Sheet for Applying CalEEMod to Localized Significance Thresholds* and *CalEEMod User’s Guide Appendix C: Emission Calculation Details for CalEEMod (25) (28)*. The disturbed area per day is representative of a piece of equipment making multiple passes over the same land area. In other words, one Rubber Tired Dozer can make multiple passes over the same land area totaling 0.5 acres in a given 8-hour day. Based on Table 3-7, the Project’s construction activities could actively disturb approximately 3.5 acres per day during site preparation and 4.0 acres per day during grading activities.

TABLE 3-7: MAXIMUM DAILY DISTURBED-ACREAGE

Construction Activity	Equipment Type	Equipment Quantity	Acres graded per 8-hour day	Operating Hours per Day	Acres graded per day
Site Preparation	Crawler Tractors	4	0.5	8	2.0
	Rubber Tired Dozers	3	0.5	8	1.5
Total acres disturbed per day during Site Preparation					3.5
Grading	Crawler Tractors	2	0.5	8	1.0
	Graders	1	0.5	8	0.5
	Rubber Tired Dozers	1	0.5	8	0.5
	Scrapers	2	1.0	8	2.0
Total acres disturbed per day during Grading					4.0

Source: Maximum daily disturbed acreage based on equipment list presented in Appendix 3.1.

RECEPTORS

As previously stated, LSTs represent the maximum emissions from a project that would not cause or contribute to an exceedance of the most stringent applicable NAAQS and CAAQS at the nearest residence or sensitive receptor. Receptor locations are off-site locations where individuals may be exposed to emissions from Project activities.

Some people are especially sensitive to air pollution and are given special consideration when evaluating air quality impacts from projects. These groups of people include children, the elderly, and individuals with pre-existing respiratory or cardiovascular illness. Structures that house these persons or places where they gather are defined as “sensitive receptors”. These structures typically include uses such as residences, hotels, and hospitals where an individual can remain for 24 hours. Consistent with the LST Methodology, the nearest land use where an individual could remain for 24 hours to the Project site has been used to determine construction and operational air quality impacts for emissions of PM₁₀ and PM_{2.5}, since PM₁₀ and PM_{2.5} thresholds are based on a 24-hour averaging time.

LSTs apply, even for non-sensitive land uses, consistent with *LST Methodology* and SCAQMD guidance. Per the *LST Methodology*, commercial and industrial facilities are not included in the definition of sensitive receptor because employees and patrons do not typically remain onsite for a full 24 hours but are typically onsite for 8 hours or less. However, *LST Methodology* explicitly states that “LSTs based on shorter averaging periods, such as the NO₂ and CO LSTs, could also be applied to receptors such as industrial or commercial facilities since it is reasonable to assume that a worker at these sites could be present for periods of one to eight hours (27).” Therefore, any adjacent land use where an individual could remain for 1 or 8-hours, that is located at a closer distance to the Project site than the receptor used for PM₁₀ and PM_{2.5} analysis, must be considered to determine construction and operational LST air impacts for emissions of NO₂ and CO since these pollutants have an averaging time of 1 and 8-hours.

PROJECT-RELATED RECEPTORS

Receptors in the Project study area are described below and shown on Exhibit 3-A. Localized air quality impacts were evaluated at sensitive receptor land uses nearest the Project site. All distances are measured from the Project site boundary to the outdoor living areas (e.g., backyards) or at the building façade, whichever is closer to the Project site.

- R1: Location R1 represents the existing residence at 6911 Joy Street, approximately 153 feet northwest of the Project site. Receptor R1 is placed in the private outdoor living areas (backyards) facing the Project site.
- R2: Location R2 represents the existing residence at 13585 Euclid Avenue, approximately 166 feet northeast of the Project site. Receptor R2 is placed in the private outdoor living areas (backyards) facing the Project site.
- R3: Location R3 represents the existing residence at 13815 Farmhouse Avenue, approximately 737 feet south of the Project site. Receptor R3 is placed in the private outdoor living areas (backyards) facing the Project site.
- R4: Location R4 represents the existing residence at 6916 Old Mill Avenue, approximately 700 feet south of the Project site. Receptor R4 is placed in the private outdoor living areas (backyards) facing the Project site.
- R5: Location R5 represents the existing residence at 13723 Cherry Court, approximately 173 feet southwest of the Project site. Receptor R5 is placed in the private outdoor living areas (backyards) facing the Project site.
- R6: Location R6 represents the existing residence at 6852 Homan Court, approximately 116 feet west of the Project site. Receptor R6 is placed in the private outdoor living areas (backyards) facing the Project site.
- R7: Location R7 represents the Chino Smiles Dentistry and Orthodontics office at 6961 Schaefer Avenue, located approximately 115 feet south of the Project site.

EXHIBIT 3-A: RECEPTOR LOCATIONS



LEGEND:
N [Red dashed box] Site Boundary [Blue 'X' symbol] Receptor Locations —• Distance from receptor to Project site boundary (in feet)

The SCAQMD recommends that the nearest sensitive receptor be considered when determining the Project's potential to cause an individual a cumulatively significant impact. The nearest land use where an individual could remain for 24 hours to the Project site has been used to determine localized construction and operational air quality impacts for emissions of PM₁₀ and PM_{2.5} (since PM₁₀ and PM_{2.5} thresholds are based on a 24-hour averaging time). The nearest receptor used for evaluation of localized impacts of PM₁₀ and PM_{2.5} is represented by location R6 which represents the existing residence at 6852 Homan Court, approximately 116 feet (35 meters) west of the Project site.

As previously stated, and consistent with *LST Methodology*, the nearest industrial/commercial use to the Project site is used to determine construction and operational LST air impacts for emissions of NO_x and CO as the averaging periods for these pollutants are shorter (8 hours or less) and it is reasonable to assumed that an individual could be present at these sites for periods of one to 8 hours. The nearest receptor used for evaluation of localized impacts of NO_x and CO is represented by location R7 which represents the Chino Smiles Dentistry and Orthodontics office at 6961 Schaefer Avenue, located approximately 115 feet (35 meters) south of the Project site.

3.7 CONSTRUCTION-SOURCE EMISSIONS LST ANALYSIS

3.7.1 LOCALIZED THRESHOLDS FOR CONSTRUCTION ACTIVITY

Since the total acreage disturbed is less than five acres per day for site preparation and grading activities, the SCAQMD's screening look-up tables are utilized in determining impacts. Consistent with SCAQMD guidance, the thresholds presented in Table 3-8 were calculated by interpolating the threshold values for the Project's disturbed acreage.

TABLE 3-8: MAXIMUM DAILY LOCALIZED CONSTRUCTION EMISSIONS THRESHOLDS

Construction Activity	Construction Localized Thresholds			
	NO _x	CO	PM ₁₀	PM _{2.5}
Site Preparation	233 lbs/day	1,999 lbs/day	20 lbs/day	8 lbs/day
Grading	249 lbs/day	2,168 lbs/day	23 lbs/day	9 lbs/day

Source: Localized Thresholds presented in this table are based on the SCAQMD Final LST Methodology, July 2008

3.7.2 CONSTRUCTION-SOURCE LOCALIZED EMISSIONS

IMPACTS WITHOUT MITIGATION

Table 3-9 identifies the localized impacts during construction activity. Without mitigation, localized construction emissions would not exceed the applicable SCAQMD LSTs for emissions of any critical pollutant. Outputs from the model runs for unmitigated construction LSTs are provided in Appendix 3.1.

TABLE 3-9: LOCALIZED CONSTRUCTION-SOURCE EMISSIONS – WITHOUT MITIGATION

Construction Activity	Year	Scenario	Emissions (lbs/day)			
			NO _x	CO	PM ₁₀	PM _{2.5}
Site Preparation	2024	Summer	42.51	35.31	7.91	4.76
		Winter	n/a	n/a	n/a	n/a
		Maximum Daily Emissions	42.51	35.31	7.91	4.76
		SCAQMD Localized Threshold	233	1,999	20	8
		Threshold Exceeded?	NO	NO	NO	NO
Grading	2024	Summer	37.57	31.37	4.44	2.61
		Winter	n/a	n/a	n/a	n/a
		Maximum Daily Emissions	37.57	31.37	4.44	2.61
		SCAQMD Localized Threshold	249	2,168	23	9
		Threshold Exceeded?	NO	NO	NO	NO

Source: CalEEMod unmitigated localized construction-source emissions are presented in Appendix 3.1.

3.8 OPERATIONAL-SOURCE EMISSIONS LST ANALYSIS

As previously stated, the Project is to consist of the development of a four-story residential component with 282 multifamily (mid-rise) residential dwelling units, a four-story self-storage component with 145,000 square feet of self-storage use, and a retail component that consists of 2 fast-food restaurants with drive-through window pads totaling 7,000 square feet and a 12,500 square foot retail pad (assuming 9,400 square feet of fast-food restaurant without drive-through window use and 3,100 square feet of retail use).

According to SCAQMD LST methodology, LSTs would apply to the operational phase of a proposed project, if the project includes stationary sources, or attracts mobile sources that may spend long periods queuing and idling at the site (e.g., transfer facilities and warehouse buildings). The proposed Project does not include such uses, and thus, due to the lack of significant stationary source emissions, no long-term localized significance threshold analysis is needed.

3.9 CO “HOT SPOT” ANALYSIS

As discussed below, the Project would not result in potentially adverse CO concentrations or “hot spots.” Further, detailed modeling of Project-specific CO “hot spots” is not needed to reach this conclusion. An adverse CO concentration, known as a “hot spot”, would occur if an exceedance of the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur.

It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. In response, vehicle emissions standards have become increasingly stringent in the last twenty years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain

vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the SCAB is now designated as attainment. To establish a more accurate record of baseline CO concentrations affecting the SCAB, a CO “hot spot” analysis was conducted in 2003 for four busy intersections in Los Angeles at the peak morning and afternoon time periods. This “hot spot” analysis did not predict any violation of CO standards, as shown on Table 3-10.

TABLE 3-10: CO MODEL RESULTS

Intersection Location	CO Concentrations (ppm)		
	Morning 1-hour	Afternoon 1-hour	8-hour
Wilshire Boulevard/Veteran Avenue	4.6	3.5	3.7
Sunset Boulevard/Highland Avenue	4	4.5	3.5
La Cienega Boulevard/Century Boulevard	3.7	3.1	5.2
Long Beach Boulevard/Imperial Highway	3	3.1	8.4

Source: 2003 AQMP, Appendix V: Modeling and Attainment Demonstrations

Notes: Federal 1-hour standard is 35 ppm and the deferral 8-hour standard is 9.0 ppm.

Based on the SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (*1992 CO Plan*), peak carbon monoxide concentrations in the SCAB were a result of unusual meteorological and topographical conditions and not a result of traffic volumes and congestion at a particular intersection. As evidence of this, for example, 8.4 ppm 8-hr CO concentration measured at the Long Beach Blvd. and Imperial Hwy. intersection (highest CO generating intersection within the “hot spot” analysis), only 0.7 ppm was attributable to the traffic volumes and congestion at this intersection; the remaining 7.7 ppm were due to the ambient air measurements at the time the 2003 AQMP was prepared (29). In contrast, an adverse CO concentration, known as a “hot spot”, would occur if an exceedance of the state one-hour standard of 20 parts per million (ppm) or the eight-hour standard of 9 ppm were to occur.

The ambient 1-hr and 8-hr CO concentration within the Project study area is estimated to be 1.3 ppm and 1.0 ppm, respectively (data from the I-10 Near Road monitoring station for 2022). Therefore, even if the traffic volumes for the proposed Project were double or even triple of the traffic volumes generated at the Long Beach Blvd. and Imperial Hwy. intersection, coupled with the on-going improvements in ambient air quality, the Project would not be capable of resulting in a CO “hot spot” at any study area intersections.

Similar considerations are also employed by other Air Districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District (BAAQMD) concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour (vph)—or 24,000 vph where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (30). Traffic volumes generating the CO concentrations for the “hot spot” analysis is shown on Table 3-11. The busiest intersection evaluated was that at Wilshire

Boulevard and Veteran Avenue, which has a daily traffic volume of approximately 100,000 vph and AM/PM traffic volumes of 8,062 vph and 7,719 vph respectively (29). The 2003 AQMP estimated that the 1-hour concentration for this intersection was 4.6 ppm; this indicates that, should the daily traffic volume increase four times to 400,000 vehicles per day, CO concentrations (4.6 ppm x 4= 18.4 ppm) would still not likely exceed the most stringent 1-hour CO standard (20.0 ppm)⁴.

TABLE 3-11: TRAFFIC VOLUMES

Intersection Location	Peak Traffic Volumes (vph)				
	Eastbound (AM/PM)	Westbound (AM/PM)	Southbound (AM/PM)	Northbound (AM/PM)	Total (AM/PM)
Wilshire Boulevard/Veteran Avenue	4,954/2,069	1,830/3,317	721/1,400	560/933	8,062/7,719
Sunset Boulevard/Highland Avenue	1,417/1,764	1,342/1,540	2,304/1,832	1,551/2,238	6,614/5,374
La Cienega Boulevard/Century Boulevard	2,540/2,243	1,890/2,728	1,384/2,029	821/1,674	6,634/8,674
Long Beach Boulevard/Imperial Highway	1,217/2,020	1,760/1,400	479/944	756/1,150	4,212/5,514

Source: 2003 AQMP

As summarized on Table 3-12 below, the intersection of Euclid Avenue (State Route [SR] 83) and ST-60 Eastbound (EB) Ramps would have the highest AM/PM traffic volumes of 4,232 vph and 4,470 vph respectively. As such, Total traffic volumes at the intersections considered are less than the traffic volumes identified in the 2003 AQMP. As such, the Project considered herein along with background and cumulative development would not produce the volume of traffic required to generate a CO “hot spot” either in the context of the 2003 Los Angeles hot spot study or based on representative BAAQMD CO threshold considerations. Therefore, CO “hot spots” are not an environmental impact of concern for the Project. Localized air quality impacts related to mobile-source emissions would therefore be less than significant.

TABLE 3-12: PEAK HOUR TRAFFIC VOLUMES

Intersection Location	Peak Traffic Volumes (vph)				
	Northbound (AM/PM)	Southbound (AM/PM)	Eastbound (AM/PM)	Westbound (AM/PM)	Total (AM/PM)
Euclid Avenue (SR-83)/SR-60 EB Ramps	1,487/1,969	1,398/1,245	1,166/739	0/0	4,051/3,953
Euclid Avenue (SR-83)/Walnut Avenue	1,342/1,817	1,858/1,474	482/686	551/493	4,232/4,470
Euclid Avenue (SR-83)/Riverside Drive	1,253/1,953	1,680/1,303	568/620	749/694	4,251/4,570
Euclid Avenue (SR-83)/Schaefer Avenue	1,160/1,970	1,715/1,230	549/861	227/174	3,650/4,235
Euclid Avenue (SR-83)/Edison Avenue	1,202/1,814	1,621/1,288	604/716	563/746	3,990/4,564

Source: Eden Mixed-Use (PL23-0111) Traffic Analysis (Urban Crossroads, Inc., 2023)

⁴ Based on the ratio of the CO standard (20.0 ppm) and the modeled value (4.6 ppm)

3.10 AQMP

The Project site is located within the SCAB, which is characterized by relatively poor air quality. The SCAQMD has jurisdiction over an approximately 10,743 square-mile area consisting of the four-county Basin and the Los Angeles County and Riverside County portions of what use to be referred to as the Southeast Desert Air Basin. In these areas, the SCAQMD is principally responsible for air pollution control, and works directly with the SCAG, county transportation commissions, local governments, as well as state and federal agencies to reduce emissions from stationary, mobile, and indirect sources to meet state and federal ambient air quality standards.

Currently, these state and federal air quality standards are exceeded in most parts of the SCAB. In response, the SCAQMD has adopted a series of AQMPs to meet the state and federal ambient air quality standards. AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy.

In December 2022, the SCAQMD released the *Final 2022 AQMP (2022 AQMP)*. The *2022 AQMP* continues to evaluate current integrated strategies and control measures to meet the CAAQS, as well as explore new and innovative methods to reach its goals. Some of these approaches include utilizing incentive programs, recognizing existing co-benefit programs from other sectors, and developing a strategy with fair-share reductions at the federal, state, and local levels (31). Similar to the 2016 AQMP, the *2022 AQMP* incorporates scientific and technological information and planning assumptions, including the *2020-2045 RTP/SCS*, a planning document that supports the integration of land use and transportation to help the region meet the federal CAA requirements (32). The Project's consistency with the AQMP will be determined using the *2022 AQMP* as discussed below.

Criteria for determining consistency with the AQMP are defined in Chapter 12, Section 12.2 and Section 12.3 of the *1993 CEQA Handbook* (33). These indicators are discussed below:

3.10.1 CONSISTENCY CRITERION NO. 1

The proposed Project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.

The violations that Consistency Criterion No. 1 refer to are the CAAQS and NAAQS. CAAQS and NAAQS violations would occur if regional or localized significance thresholds were exceeded.

Construction Impacts – Consistency Criterion 1

Consistency Criterion No. 1 refers to violations of the CAAQS and NAAQS. CAAQS and NAAQS violations would occur if localized or regional significance thresholds were exceeded. As evaluated, the Project's localized and regional construction-source emissions would not exceed applicable regional significance threshold and LST thresholds. As such, a less than significant impact is expected.

Operational Impacts – Consistency Criterion 1

As evaluated, the Project’s localized and regional operation-source emissions would not exceed applicable regional significance threshold and LST thresholds. As such, a less than significant impact is expected.

On the basis of the preceding discussion, the Project is determined to be consistent with the first criterion.

3.10.2 CONSISTENCY CRITERION No. 2***The Project will not exceed the assumptions in the AQMP based on the years of Project build-out phase.***

The AQMP demonstrates that the applicable ambient air quality standards can be achieved within the timeframes required under federal law. Growth projections from local general plans adopted by cities in the district are provided to the SCAG, which develops regional growth forecasts, which are then used to develop future air quality forecasts for the AQMP. Development consistent with the growth projections in City of Chino General Plan is considered to be consistent with the AQMP.

Construction Impacts – Consistency Criterion 2

Peak day emissions generated by construction activities are largely independent of land use assignments, but rather are a function of development scope and maximum area of disturbance. Irrespective of the site’s land use designation, development of the site to its maximum potential would likely occur, with disturbance of the entire site occurring during construction activities. As such, when considering that no emissions thresholds will be exceeded, a less than significant impact would result.

Operational Impacts – Consistency Criterion 2

The Project site is designated as General Commercial (GC) under the City’s East Chino Specific Plan. The GC designation allows for a wide variety of permitted and conditionally permitted commercial uses, including the proposed commercial retail and drive-through uses. The Site is also subject to a recently approved Mixed Use Overlay that would allow for high density housing at the Site (30 units per acre) and self-storage uses on sites greater than five acres.

The Project will require Site Approval through the design review process and Conditional Use Permits for the drive-through and self-storage uses. Additionally, a Tentative Parcel Map will be required to configure the property lines consistent with the Project. The Project will also be subject to environmental review in compliance with the CEQA, based on conversations with City Staff, we anticipate that the City will require preparation of an Addendum to the EIR that was previously approved and certified for the East Chino Specific Plan. Accordingly, the Applicant is currently in the process of preparing the Addendum and supporting environmental studies for the Project.

The Project is to consist of the development of a four-story residential component with 282 multifamily (mid-rise) residential dwelling units, a four-story self-storage component with 145,000

square feet of self-storage use, and a retail component that consists of 2 fast-food restaurants with drive-through window pads totaling 7,000 square feet and a 12,500 square foot retail pad (assuming 9,400 square feet of fast-food restaurant without drive-through window use and 3,100 square feet of retail use). It is important to note that the *FEIR* does not quantify emissions for specific land use projects. It should be noted that the *FEIR* identified a significant and unavoidable impact with respect to AQMP consistency. As such, the Project would not result in any new or more severe impact with respect to this threshold that was not previously disclosed.

On the basis of the preceding discussion, the Project is determined to be consistent with the second criterion.

AQMP CONSISTENCY CONCLUSION

The Project would not have the potential to result in or cause NAAQS or CAAQS violations. The Project's proposed uses are consistent with the General Plan land use designation, and the Project would not exceed the regional or localized construction and operational thresholds. Additionally, the *FEIR* identified a significant and unavoidable impact with respect to AQMP consistency. As such, the Project would not result in any new or more severe impact with respect to this threshold that was not previously disclosed.

3.11 POTENTIAL IMPACTS TO SENSITIVE RECEPTORS

The potential impact of Project-generated air pollutant emissions at sensitive receptors has also been considered. Results of the LST analysis indicate that the Project would not exceed the SCAQMD localized significance thresholds during construction. Therefore, sensitive receptors would not be exposed to substantial pollutant concentrations during Project construction.

Additionally, the Project would not exceed the SCAQMD localized significance thresholds during operational activity. Further Project traffic would not create or result in a CO "hotspot." Therefore, sensitive receptors would not be exposed to substantial pollutant concentrations as the result of Project operations.

3.11.1 FRIANT RANCH CASE

In December 2018, in the case of *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, the California Supreme Court held that an Environmental Impact Report's (EIR) air quality analysis must meaningfully connect the identified air quality impacts to the human health consequences of those impacts, or meaningfully explain why that analysis cannot be provided.

Most local agencies, including the City of Chino, lack the data to do their own assessment of potential health impacts from criteria air pollutant emissions, as would be required to establish customized, locally-specific thresholds of significance based on potential health impacts from an individual development project. The use of national or "generic" data to fill the gap of missing local data would not yield accurate results because such data does not capture local air patterns, local background conditions, or local population characteristics, all of which play a role in how a population experiences air pollution. Because it is impracticable to accurately isolate the exact cause of a human disease (for example, the role a particular air pollutant plays compared to the

role of other allergens and genetics in causing asthma), existing scientific tools cannot accurately estimate health impacts of the Project's air emissions without undue speculation. Instead, readers are directed to the Project's air quality impact analysis above, which provides extensive information concerning the quantifiable and non-quantifiable health risks related to the Project's construction and long-term operation.

Notwithstanding, this AQIA does evaluate the proposed Project's localized impact to air quality for emissions of CO, NO_x, PM₁₀, and PM_{2.5} by comparing the proposed project's on-site emissions to the SCAQMD's applicable LST thresholds. The LST analysis above determined that the Project would not result in emissions exceeding SCAQMD's LSTs. Therefore, the proposed Project would not be expected to exceed the most stringent applicable federal or state ambient air quality standards for emissions of CO, NO_x, PM₁₀, and PM_{2.5}.

As the Project's emissions would comply with federal, state, and local air quality standards, the proposed Project's emissions are not sufficiently high enough to use a regional modeling program to correlate health effects on a basin-wide level and would not provide a reliable indicator of health effects if modeled.

3.12 ODORS

The potential for the Project to generate objectionable odors has also been considered. Land uses generally associated with odor complaints include:

- Agricultural uses (livestock and farming)
- Wastewater treatment plants
- Food processing plants
- Chemical plants
- Composting operations
- Refineries
- Landfills
- Dairies
- Fiberglass molding facilities

The Project does not contain land uses typically associated with emitting objectionable odors. Potential odor sources associated with the proposed Project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities and the temporary storage of typical solid waste (refuse) associated with the proposed Project's (long-term operational) uses. Standard construction requirements would minimize odor impacts from construction. The construction odor emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction and is thus considered less than significant. It is expected that Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with current solid waste regulations. The proposed Project would also be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances. Therefore, odors and other

emissions (such as those leading to odors) associated with construction and operations activities of the proposed Project would be less than significant and no mitigation is required (34).

3.13 CUMULATIVE IMPACTS

As previously shown in Table 2-3, the CAAQS designate the Project site as nonattainment for O₃, PM₁₀, and PM_{2.5} while the NAAQS designates the Project site as nonattainment for O₃ and PM_{2.5}.

The SCAQMD has published a report on how to address cumulative impacts from air pollution: *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution* (35). In this report the SCAQMD clearly states (Page D-3):

“...the SCAQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for TAC emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility-wide) is HI > 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.

Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.”

Therefore, this analysis assumes that individual projects that do not generate operational or construction emissions that exceed the SCAQMD’s recommended daily thresholds for project-specific impacts would also not cause a cumulatively considerable increase in emissions for those pollutants for which SCAB is in nonattainment, and, therefore, would not be considered to have a significant, adverse air quality impact. Alternatively, individual project-related construction and operational emissions that exceed SCAQMD thresholds for project-specific impacts would be considered cumulatively considerable.

CONSTRUCTION IMPACTS

The Project-specific evaluation of emissions presented in the preceding analysis demonstrates that proposed Project construction-source air pollutant emissions would not result in exceedances of regional thresholds. Therefore, proposed Project construction-source emissions would be considered less than significant on a Project-specific and cumulative basis.

OPERATIONAL IMPACTS

The Project-specific evaluation of emissions presented in the preceding analysis demonstrates that proposed Project operation-source air pollutant emissions would not result in exceedances of regional thresholds. Therefore, proposed Project operation-source emissions would be considered less than significant on a project-specific and cumulative basis.

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5 CERTIFICATIONS

The contents of this air study report represent an accurate depiction of the environmental impacts associated with the proposed Eden Mixed-Use (PL23-0111). The information contained in this air quality impact assessment report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at hqureshi@urbanxroads.com

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Master of Science in Environmental Studies
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University of California, Irvine • June, 2006

PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Professionals
AWMA – Air and Waste Management Association
ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Planned Communities and Urban Infill – Urban Land Institute • June 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April 2008
Principles of Ambient Air Monitoring – CARB • August 2007
AB2588 Regulatory Standards – Trinity Consultants • November 2006
Air Dispersion Modeling – Lakes Environmental • June 2006

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APPENDIX 2.1:

STATE/FEDERAL ATTAINMENT STATUS OF CRITERIA POLLUTANTS

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APPENDIX 3.1:

CALEEMOD PROJECT CONSTRUCTION EMISSIONS MODEL OUTPUTS

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APPENDIX 3.2:

CALEEMOD PROJECT REGIONAL OPERATIONAL EMISSIONS MODEL OUTPUTS

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