

IV. Environmental Impact Analysis

B. Air Quality

1. Introduction

This section of the Draft EIR assesses the Project's air quality impacts generated during construction and operation. The analysis also assesses the consistency of the Project with the air quality policies set forth within the South Coast Air Quality Management District's (SCAQMD) Air Quality Management Plan (AQMP) and the City of Los Angeles General Plan. The analysis of Project-generated air pollutant emissions focuses on whether the Project would cause an exceedance of an ambient air pollutant standard or SCAQMD significance threshold. This section relies on the information, data, and assumptions provided in the following technical modeling (refer to Appendix C).

- *Air Quality and Greenhouse Gas Emissions Technical Modeling*, PlaceWorks, February 17, 2020.

In addition, the potential cumulative air quality impacts of the Project, in combination with all known related projects, are evaluated in this section.

2. Environmental Setting

a. Air Pollution and Potential Health Effects

Criteria air pollutants are defined as pollutants for which the federal and State governments have established ambient air quality standards for outdoor concentrations. The federal and State standards have been set at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. Pollutants of concern include carbon monoxide (CO), ozone (O₃), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulate matter 2.5 microns or less in diameter (PM_{2.5}), particulate matter ten microns or less in diameter (PM₁₀), and lead (Pb). These pollutants are discussed below.

(1) Criteria Pollutants

Carbon Monoxide (CO) is a colorless and odorless gas formed by the incomplete combustion of fossil fuels. It is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas, automobile exhaust accounts for the majority of emissions. CO is a non-reactive air pollutant that dissipates relatively quickly, so ambient concentrations generally follow the spatial and temporal distributions of vehicular traffic. Concentrations are influenced by local meteorological conditions, primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally

concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, a typical situation at dusk in urban areas between November and February. The highest concentrations occur during the colder months of the year when inversion conditions are more frequent. CO is a health concern because it competes with oxygen, often replacing it in the blood and reducing the blood's ability to transport oxygen to vital organs. Even short-term excess CO exposure can lead to dizziness, fatigue, and impair central nervous system functions, such as voluntary movement (e.g., speech, walking) and involuntary movement (e.g., blinking, breathing).

Ozone (O₃) is a colorless gas that is formed in the atmosphere when volatile organic compounds (VOC) and nitrogen oxides (NO_x) react in the presence of ultraviolet sunlight. O₃ is not a primary pollutant; rather, it is a secondary pollutant formed by complex interactions of two pollutants directly emitted into the atmosphere. The primary sources of VOC and NO_x, the components of O₃, are automobile exhaust and industrial sources. Meteorology and terrain play major roles in O₃ formation. Ideal conditions occur during summer and early autumn, on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. The greatest source of VOC and NO_x emissions is the automobile. 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 susceptibility to infections, inflammation of the lung tissue, and some immunological changes.

Nitrogen Dioxide (NO₂), like O₃, is not directly emitted into the atmosphere but is formed by an atmospheric chemical reaction between nitric oxide (NO) and atmospheric oxygen. NO and NO₂ are collectively referred to as NO_x and are major contributors to O₃ formation. NO₂ also contributes to the formation of PM₁₀. High concentrations of NO₂ can cause breathing difficulties and result in a brownish-red cast to the atmosphere with reduced visibility. There is some indication of a relationship between NO₂ and chronic pulmonary fibrosis.¹ Some increase of bronchitis in children (2-3 years old) has been observed at concentrations below 0.3 ppm.²

Sulfur Dioxide (SO₂) is a colorless, pungent gas formed primarily by the combustion of sulfur-containing fossil fuels. Main sources of SO₂ are coal and oil used in power plants and industries. Generally, the highest levels of SO₂ are found near large industrial complexes. In recent years, SO₂ concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO₂ and limits on the sulfur content of fuels. SO₂ is an irritant gas that attacks the throat and lungs.³ It can cause acute respiratory symptoms and diminished breathing function in children. SO₂ can also cause yellowing in plant leaves and erode iron and steel.

Particulate Matter (PM₁₀ and PM_{2.5}) consists of small liquid and solid particles floating in the air, including smoke, soot, dust, salts, acids, and metals and can form when gases emitted from

¹ Conti, Harari, Caminati et al, "The Association Between Air Pollution and the Incidence of Idiopathic Pulmonary Fibrosis." 2018.

² Conti, Harari, Caminati et al, "The Association Between Air Pollution and the Incidence of Idiopathic Pulmonary Fibrosis." 2018.

³ U.S. National Park Service, "Sulfur Dioxide Effects on Health," Accessed on August 5, 2021 at <https://www.nps.gov/subjects/air/humanhealth-sulfur.htm>.

industries and motor vehicles undergo chemical reactions in the atmosphere. Fine particulate matter, or $PM_{2.5}$, is roughly 1/28 the diameter of a human hair and results from fuel combustion (e.g., motor vehicles, power generation, industrial facilities), residential fireplaces, and wood stoves. In addition, $PM_{2.5}$ can be formed in the atmosphere from gases, such as SO_2 , NO_x , and VOC. Inhalable particulate matter, or PM_{10} , is about 1/7 the thickness of a human hair. Major sources of PM_{10} include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions. $PM_{2.5}$ and PM_{10} pose a greater health risk than larger-size particles. When inhaled, they can penetrate the human respiratory system's natural defenses and damage the respiratory tract. Based on a substantial body of over 20 studies, $PM_{2.5}$ and PM_{10} can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances, such as lead, sulfates, and nitrates, can cause lung damage directly. These substances can be absorbed into the blood stream and cause damage elsewhere in the body. These substances can transport absorbed gases, such as chlorides or ammonium, into the lungs and cause injury. Whereas respirable particulate matter, or PM_{10} , tends to collect in the upper portion of the respiratory system, $PM_{2.5}$ is so tiny that it can penetrate deeper into the lungs and damage lung tissues. Suspended particulates also damage and discolor surfaces on which they settle, as well as produce haze and reduce regional visibility.

Lead (Pb) in the atmosphere occurs as particulate matter. Sources of lead include leaded gasoline; the manufacturers of batteries, paint, ink, ceramics, and ammunition; and secondary lead smelters. Prior to 1978, mobile emissions were the primary source of atmospheric lead. Between 1978 and 1987, the phase-out of leaded gasoline reduced the overall inventory of airborne lead by nearly 95 percent. With the phase-out of leaded gasoline, secondary lead smelters, battery recycling, and manufacturing facilities have become the lead-emission sources of greater concern. Lead-based paints are a health concern for those exposed to lead-based paint dust or chips from structures built before 1978 and the phase-out of these paints. Prolonged exposure to atmospheric lead poses a serious threat to human health. Health effects associated with exposure to lead include gastrointestinal disturbances, anemia, kidney disease, and in severe cases, neuromuscular and neurological dysfunction. Of particular concern are low-level lead exposures during infancy and childhood. Such exposures are associated with decreases in neurobehavioral performance, including intelligence quotient performance, psychomotor performance, reaction time, and growth.

Sulfates are a family of chemicals that occur primarily from combustion of petroleum-based fuels that contain sulfur. They can be a significant portion of fine particulate matter and can induce a wide range of adverse health effects, including reduced lung function and aggravated asthmatic symptoms.

Hydrogen Sulfide is a colorless gas generated by natural gas extraction and processing and is also formed during bacterial decomposition of organic wastes. These odors are generally strong

and foul and can induce tearing of eyes, headaches, nausea, or vomiting. As such, they are regulated as a nuisance because of its odors.

(2) Volatile Organic Compounds

VOCs are organic chemicals with a high vapor pressure that are precursors to the formation of ozone. They are generated by a number of anthropogenic sources, including paints, coatings, and combustion of fossil fuels. These also include benzene, a human carcinogen.

(3) Toxic Air Contaminants

Toxic Air Contaminants (TACs) are airborne pollutants that may increase a person's risk of developing cancer or other serious health effects. TACs include over 700 chemical compounds that are identified by State and federal agencies based on a review of available scientific evidence. In California, TACs are identified through a two-step process established in 1983 that includes risk identification and risk management. In 1998, CARB identified diesel particulate matter (DPM) as a toxic air contaminant.

DPM refers to a complex mixture of particles and gases produced when an engine burns diesel fuel. DPM is a concern because it increases risk of lung cancer, as many compounds found in diesel exhaust are carcinogenic. Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and diesel exhaust can cause coughs, headaches, light-headedness, and nausea. DPM poses the greatest health risk among the TACs to sensitive receptors near freeways or other locations where diesel-fueled equipment or vehicles operate. These health risks are associated with a lifetime of chronic exposure, generally considered 70 years by the State's Office of Environmental Health Hazard Assessment (OEHHA).

b. Regulatory Framework

There are several plans, regulations, and programs that include policies, requirements, and guidelines regarding Air Quality at the federal, state, regional, and local levels. As described below, these plans, guidelines, and laws include the following:

- Federal Clean Air Act (CCA)
 - National Ambient Air Quality Standards (NAAQS)
- California Clean Air Act (CCAA)
 - California Ambient Air Quality Standards (CAAQS)
- California Code of Regulations (CCR)
- State Programs for Toxic Air Contaminants
- Diesel Risk Reduction Program

- South Coast Air Quality Management District (SCAQMD)'s Air Quality Management Plan (AQMP) and Southern California Association of Governments' (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)
- SCAQMD's Air Quality Guidance Documents
- SCAQMD's Rules and Regulations
- City of Los Angeles Air Quality Element
- City of Los Angeles Plan for a Healthy LA

(1) Federal

The United States Environmental Protection Agency (USEPA) is responsible for enforcing the Federal Clean Air Act (CAA), the legislation that governs air quality in the United States. USEPA is also responsible for establishing the National Ambient Air Quality Standards (NAAQS). NAAQS are required under the 1977 CAA and subsequent amendments. USEPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. It has jurisdiction over emission sources outside State waters (e.g., beyond the outer continental shelf) and establishes emission standards, including those for vehicles sold in States other than California, where automobiles must meet stricter emission standards than those set by the State.

As required by the CAA, NAAQS have been established for seven major air pollutants: CO, NO₂, O₃, PM_{2.5}, PM₁₀, SO₂, and Pb. The CAA requires USEPA to designate areas as attainment, nonattainment, or maintenance for each criteria pollutant based on whether the NAAQS have been achieved. The federal standards are summarized in Table IV.B-1, *State and National Ambient Air Quality Standards*, below. Areas are classified as attainment or nonattainment areas for particular pollutants depending on whether they meet the ambient air quality standards. Severity classifications for ozone nonattainment range in magnitude from marginal, moderate, and serious to severe and extreme.

- **Unclassified.** A pollutant is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.
- **Attainment.** A pollutant is in attainment if the AAQS for that pollutant was not violated at any site in the area during a three-year period.
- **Nonattainment.** A pollutant is in nonattainment if there was at least one violation of an AAQS for that pollutant in the area.
- **Nonattainment/Transitional.** A subcategory of the nonattainment designation. An area is designated nonattainment/transitional to signify that the area is close to attaining the AAQS for that pollutant.

The USEPA has classified the Los Angeles County portion of the South Coast Air Basin (SCAB) as nonattainment for O₃, Pb, and PM_{2.5}, attainment for PM₁₀, and attainment/unclassified for CO and NO₂. SO₂ is considered an attainment pollutant.

(2) State

a. Clean Air Act (CAA)

In addition to being subject to the requirements of the Federal Clean Air Act, air quality in California is also governed by more stringent regulations under the California Clean Air Act (CCAA). The California Air Resources Board (CARB), which became part of the California Environmental Protection Agency (CalEPA) in 1991, is responsible for administering the CCAA and establishing the California Ambient Air Quality Standards (CAAQS). CARB has broad authority to regulate mobile air pollution sources, such as motor vehicles. It is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. CARB established passenger vehicle fuel specifications, which became effective in March 1996. CARB oversees the functions of local air pollution control districts and air quality management districts, which, in turn, administer air quality activities at the regional and county levels.

The CCAA, as amended in 1992, requires all air districts in the State to achieve and maintain the CAAQS, which are generally more stringent than the federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. The State standards are summarized in Table IV.B-1, below.

Table IV.B-1
State and National Ambient Air Quality Standards

Pollutant	Averaging Period	California Standards	Federal Standards
Ozone (O ₃)	1-hour	0.09 ppm (180 µg/m ³)	--
	8-hour	0.07 ppm (137 µg/m ³)	0.070 ppm (137 µg/m ³)
Respirable Particulate Matter (PM ₁₀)	24-hour	50 µg/m ³	150 µg/m ³
	Annual Arithmetic Mean	20 µg/m ³	--
Fine Particulate Matter (PM _{2.5})	24-hour	--	35 µg/m ³
	Annual Arithmetic Mean	12 µg/m ³	12 µg/m ³
Carbon Monoxide (CO)	8-hour	9.0 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)
	1-hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)
Nitrogen Dioxide (NO ₂)	Annual Arithmetic Mean	0.03 ppm (57 µg/m ³)	0.053 ppm (100 µg/m ³)
	1-hour	0.18 ppm (339 µg/m ³)	100 ppb (188 µg/m ³)
Sulfur Dioxide (SO ₂)	24-hour	0.04 ppm (105 µg/m ³)	--

Table IV.B-1
State and National Ambient Air Quality Standards

Pollutant	Averaging Period	California Standards	Federal Standards
	1-hour	0.25 ppm (655 µg/m ³)	75 ppb (196 µg/m ³)
	30-day average	1.5 µg/m ³	--
Lead (Pb)	Calendar Quarter	--	1.5 µg/m ³ (for certain areas) ¹

Source: CARB, Ambient Air Quality Standards

Notes: N/A = CARB has not determined 8-hour O₃ attainment status

¹ The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m³ 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.

The CCAA requires CARB to designate areas within California as either attainment or non-attainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as non-attainment for a pollutant if air quality data shows that a state standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a State standard and are not used as a basis for designating areas as non-attainment.

b. Other State Regulations

California has also adopted a host of other regulations that are applicable to the Project that reduce criteria pollutant emissions as described below.

AB 1493: Pavley Fuel Efficiency Standards. Pavley I is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016. In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025.

Heavy-Duty (Tractor-Trailer) GHG Regulation. The tractors and trailers subject to this regulation must either use USEPA SmartWay certified tractors and trailers or retrofit their existing fleet with SmartWay verified technologies.⁴ The regulation applies primarily to owners of 53-foot or longer box-type trailers, including both dry-van and refrigerated-van trailers, and owners of the heavy-duty tractors that pull them on California highways. These owners are responsible for replacing or retrofitting their affected vehicles with compliant aerodynamic technologies and low rolling resistance tires. Sleeper cab tractors model year 2011 and later must be SmartWay

⁴ Smartway certified trailers are trailers that have verified low rolling resistances tires and one or more aerodynamic devices (e.g., trailer under fairing) that achieve a total fuel savings of at least 6 percent. For more information, please refer to <https://www.epa.gov/verified-diesel-tech/smartway-designated-tractors-and-trailers>.

certified. All other tractors must use SmartWay verified low rolling resistance tires. There are also requirements for trailers to have low rolling resistance tires and aerodynamic devices.

Advanced Clean Truck Rule. This rule requires truck manufacturers to sell an increasing percentage of zero-emission trucks by 2030 (up to 15 percent or 50 percent, depending on truck type). Also, this rule requires one-time fleet reporting for large businesses.

California Code of Regulations (CCR), Title 20: Appliance Energy Efficiency Standards. The 2006 Appliance Efficiency Regulations (20 CCR §§ 1601–1608) were adopted by the CEC on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non-federally regulated appliances.

24 CCR, Part 6: Building and Energy Efficiency Standards. Energy conservation standards for new residential and non-residential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977. The latest adopted standards are the 2019 Building Energy Efficiency Standards, which went into effect on January 1, 2020. The 2022 Building Energy Efficiency Standards will be the next triennial update, to be effective January 1, 2023.

24 CCR, Part 11: Green Building Standards (CALGreen) Code. The **CALGreen Code** establishes planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.⁵

In addition to the above regulations, CARB has adopted the following plans and strategies to reduce emissions from vehicles and medium-duty and heavy-duty trucks.

Mobile Source Strategy. This strategy provides a comprehensive framework for the State in meeting air quality standards, achieving greenhouse gas (GHG) emissions reduction targets, decreasing health risk from transportation emissions, and reducing petroleum consumption between now to year 2030.⁶ Emphasis is placed on reducing emissions through the transition to zero and low emission technologies through the mobile sector, which includes on-road vehicles and medium-duty and heavy-duty trucks.⁷

Sustainable Freight Action Plan. This plan establishes a goal to improve freight efficiency by 25 percent by 2030, deploy over 100,000 freight vehicles and equipment capable of zero emission operation, and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030.⁸

⁵ *The green building standards became mandatory in the 2010 edition of the code.*

⁶ *California Air Resources Board. 2016, May. Mobile Source Strategy.*

⁷ *California Air Resources Board. 2017, November. California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target.*

⁸ *California Air Resources Board. 2017, November. California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target.*

Emissions Reduction Plan for Ports and Goods Movement (Goods Movement Plan) in California. This plan focuses on reducing heavy-duty truck-related emissions focus on establishment of emissions standards for trucks, fleet turnover, truck retrofits, and restriction on truck idling.⁹ While the focus of Goods Movement Plan is to reduce criteria air pollutant and air toxic emissions, the strategies to reduce these pollutants would also generally have a beneficial effect in reducing GHG emissions.

In addition, the USEPA and CARB are currently in the rule development processes for the following:

USEPA Cleaner Truck Initiative – In response to a petition from SCAQMD, the USEPA has committed to updating its truck engine standard to reduce NO_x emissions.

CARB's Zero-Emission Fleet Rule – This rule would require some fleets to transition to zero-emissions.

CARB's Heavy-Duty Low NO_x Program – This program would set new statewide engine standards, test cycles, and warranty and durability requirements to reduce NO_x from trucks.

CARB's Heavy-Duty Inspection/Maintenance Program – Senate Bill (SB) 210 was signed into law by Governor Newsom on September 20, 2019, and directs CARB to develop and implement a comprehensive heavy-duty vehicle inspection and maintenance program in consultation with the Department of Motor Vehicles and the Bureau of Automotive Repair. The program would set new inspection and maintenance requirements to ensure emissions controls are functioning properly.

c. Tanner Air Toxics Act and Air Toxics Hot Information and Assessment Act

Public exposure to TACs is a significant environmental health issue in California. In 1983, the California legislature enacted a program to identify the health effects of TACs and reduce exposure to them. The California Health and Safety Code defines a TAC as “an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health”¹⁰. A substance that is listed as a hazardous air pollutant pursuant to Section 112(b) of the federal Clean Air Act¹¹ is a toxic air contaminant. Under State law, the CalEPA, acting through CARB, is authorized to identify a substance as a TAC if it is an air pollutant that may cause or contribute to an increase in mortality or serious illness, or may pose a present or potential hazard to human health.

California regulates TACs primarily through AB 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics “Hot Spot” Information and Assessment Act of 1987). The Tanner Air Toxics Act set up a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB

⁹ California Air Resources Board. 2006, April 20. *Emission Reduction Plan for Ports and Goods Movement in California*.

¹⁰ 17 CCR Section 93000.

¹¹ 42 US Code Section 7412(b).

adopts an “airborne toxics control measure” for sources that emit that TAC. If there is a safe threshold for a substance (i.e., a point below which there is no toxic effect), the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate “toxics best available control technology” to minimize emissions. To date, CARB has established formal control measures for 11 TACs that are identified as having no safe threshold.

Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority facilities are required to perform a health risk assessment, and if specific thresholds are exceeded, are required to communicate the results to the public through notices and public meetings.

CARB identified particulate emissions from diesel-fueled engines as TACs in August 1998. Following the identification process, CARB was required by law to determine if there is a need for further control, which moved us into the risk management phase of the program. CARB developed the *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines* and the *Vehicles and the Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines*. The Diesel Advisory Committee approved these documents on September 28, 2000, paving the way for the next step in the regulatory process: the control measure phase. During the control measure phase, specific statewide regulations designed to further reduce DPM emissions from diesel-fueled engines and vehicles have and continue to be evaluated and developed. The goal of each regulation is to make diesel engines as clean as possible by establishing state-of-the-art technology requirements or emission standards to reduce DPM emissions.

CARB has promulgated the following specific rule to limit TAC emissions:

- **13 CCR Chapter 10 Section 2485: Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling.** This rule generally restricts on-road diesel-powered commercial motor vehicles with a gross vehicle weight rating of greater than 10,000 pounds from idling more than five minutes at any location. In addition, Section 93115 in Title 17 of the CCR states that operations of any stationary, diesel-fueled, compression-ignition engines shall meet specified fuel and fuel additive requirements and emissions standards.

(3) Regional

a. *Air Quality Management Plan*

The 1977 Lewis Air Quality Management Act merged four air pollution control districts creating the SCAQMD to coordinate air quality planning efforts throughout Southern California. It is responsible for monitoring air quality, as well as planning, implementing, and enforcing programs designed to attain and maintain state and federal ambient air quality standards. Programs include air quality rules and regulations that regulate stationary sources, area sources, point sources, and certain mobile source emissions. The SCAQMD is also responsible for establishing stationary

source permitting requirements and for ensuring that new, modified, or relocated stationary sources do not create net emission increases.

The SCAQMD monitors air quality over its jurisdiction of 10,743 square miles, including the SCAB, which covers an area of 6,745 square miles and is bounded by the Pacific Ocean to the west; the San Gabriel, San Bernardino and San Jacinto mountains to the north and east; and the San Diego County line to the south. The SCAB includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The SCAQMD also regulates the Riverside County portion of the Salton Sea Air Basin and Mojave Desert Air Basin. In its role as the local air quality regulatory agency, the SCAQMD also provides guidance on how environmental analyses should be prepared. This includes recommended thresholds of significance for evaluating air quality impacts in CEQA documents.

All areas designated as nonattainment under the CCAA are required to prepare plans showing how they will meet the air quality standards. The SCAQMD prepares the Air Quality Management Plan (AQMP) to address CAA and CCAA requirements by identifying policies and control measures. On March 3, 2017, SCAQMD adopted the 2016 AQMP, which serves as an update to the 2012 AQMP.

The 2016 AQMP is composed of stationary and mobile-source emission reductions from regulatory control measures, incentive-based programs, co-benefits from climate programs, mobile-source strategies, and reductions from federal sources such as aircrafts, locomotives, and ocean-going vessels. The 2016 AQMP presents 15 measures to reduce mobile source emissions, including identifying actions to mitigate and reduce emissions associated with new development and redevelopment projects, to reduce facility-based (i.e., commercial marine ports, rail yards and intermodal facilities, warehouse and distribution centers, and commercial airports in addition to new and redevelopment projects), on-road, and off-road mobile sources of emissions, and also to identify the benefits of incentive programs in reducing emissions. The SCAQMD has established working groups to plan and implement the facility-based mobile source measures. Currently, the SCAQMD is reviewing the feasibility of implementation of an indirect source review program to reduce emissions from new development of commercial, residential, and industrial projects that do not fall within the other facility-based mobile source measures.¹² Additionally, the SCAQMD is also reviewing a program to facilitate local and regional emission reductions through actions and investments at warehouses.¹³ Overall, strategies outlined in the 2016 AQMP would be implemented in collaboration between CARB and the USEPA.¹⁴

b. SCAQMD Rules and Regulations

All projects are subject to SCAQMD rules and regulations in effect at the time of activity, including:

¹² *South Coast Air Quality Management District. 2019, March 29. Working Group Meeting – EGM-01: New Development and Redevelopment Projects..*

¹³ *South Coast Air Quality Management District. 2019, August 23. Warehouse ISR Working Group.*

¹⁴ *South Coast Air Quality Management District. 2017, March 4. Final 2016 Air Quality Management Plan.*

- **Rule 401, Visible Emissions.** This rule is intended to prevent the discharge of pollutant emissions from an emissions source that results in visible emissions. Specifically, the rule prohibits the discharge of any air contaminant into the atmosphere by a person from any single source of emission for a period or periods aggregating more than three minutes in any one hour that is as dark as or darker than designated No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines.
- **Rule 402, Nuisance.** This rule is intended to prevent the discharge of pollutant emissions from an emissions source that results in a public nuisance. Specifically, this rule prohibits any person from discharging quantities of air contaminants or other material from any source such that it would result in an injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public. Additionally, the discharge of air contaminants would also be prohibited where it would endanger the comfort, repose, health, or safety of any number of persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property.
- **Rule 403, Fugitive Dust.** 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, reduce, or mitigate 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.
- **Rule 1113, Architectural Coatings.** 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 in the SCAQMD must comply with the current VOC standards set in this rule.
- **Rule 2305 and 316.** On May 8, 2021, SCAQMD adopted Warehouse Indirect Source Rule 2305, which includes the Warehouse Actions and Investments to Reduce Emissions Program (WAIRE), and Rule 316. Rule 2305 establishes for the first time a regulatory program designed to reduce harmful air pollution caused by warehouse-related activities and is focused on emissions from vehicles that service large warehouses. Rule 316 establishes a fee system to support the Rule 2305 program on an ongoing basis. Rules 2305 and 316 apply to operators and owners of existing and new warehouses with floor space greater than or equal to 100,000 square feet within a single building (i.e., large warehouses). Rules 2305 and 316 require such operators and owners to annually take actions with respect to their warehouses that either reduce emissions regionally and locally or facilitate emission reductions. Specifically, owners and operators must “earn” a specific

number of WAIRE points based on the intensity of operations at each of their warehouses every year by purchasing and/or using near-zero (NZE) and zero emission (ZE) equipment selected from a menu of options that will offset or reduce warehouse emissions. Owners and operators may also implement custom WAIRE plans for individual facilities, subject to SCAQMD approval; or pay mitigation fees. Owners and operators that over-comply may transfer excess WAIRE Points earned in one year to a subsequent year or may transfer WAIRE points to another site within their control. Rule 2305 also requires reporting information about facility operations and recordkeeping. Rule 316 is the companion rule to Rule 2305 and establishes the administrative fees that Rule 2305 warehouse owners and operators must pay to support South Coast AQMD compliance activities.

c. Southern California Association of Governments (SCAG)

SCAG assists by preparing the transportation portion of the AQMP through the adoption of its Regional Transportation Plan (RTP). The basis for these transportation plans are regional growth forecasts that forecast cumulative growth over the six-county region that ultimately are used to create air quality emissions budgets that help the region determine how to achieve clean air standards. This also includes the preparation of a Sustainable Communities Strategy (SCS) that responds to planning requirements of SB 375 and demonstrates the region's ability to attain greenhouse gas reduction targets set forth in State law. In April 2016, SCAG adopted its 2016-2040 RTP/SCS, a plan to invest \$556.5 billion in transportation systems over a six-county region. The current 2016 AQMP is based on SCAG's 2016–2040 RTP/SCS; the 2020–2045 RTP/SCS will be integrated into the planned 2022 AQMP, which has not yet been certified by CARB.

(4) Local

a. City of Los Angeles General Plan Air Quality Element

The City's General Plan includes an Air Quality Element that provides a policy framework that governs air quality planning within the City of Los Angeles. Adopted in November 1992, the Plan includes goals, objectives, and policies that help define how the City will achieve its clean air goals. The Air Quality Element's six goals are as follows:

- Good air quality in an environment of continued population growth and healthy economic structure;
- Less reliance on single-occupant vehicles with fewer commute and non- work trips;
- Efficient management of transportation facilities and system infrastructure using cost-effective system management and innovative demand- management techniques;

- Minimize impacts of existing land use patterns and future land use development on air quality by addressing the relationship between land use, transportation and air quality;
- Energy efficiency through land use and transportation planning, the use of renewable resources and less-polluting fuels and the implementation of conservation measures including passive measures such as site orientation and tree planting; and
- Citizen awareness of the linkages between personal behavior and air pollution and participation in efforts to reduce air pollution.

The Project's consistency with relevant Air Quality Element goals and policies are provided under the impacts section in Table IV.B-10.

b. Plan for a Healthy Los Angeles

The Plan for a Healthy Los Angeles, adopted by the City Council on March 31, 2015, lays the foundation to create healthier communities for all residents in the City. As an element of the General Plan, it provides high-level policy vision, along with measurable objectives and implementation programs, to elevate health as a priority for the City's future growth and development. With a focus on public health and safety, the Plan for a Healthy Los Angeles provides a roadmap for addressing the most basic and essential quality-of-life issues: safe neighborhoods, a clean environment (i.e., improved ambient and indoor air quality), the opportunity to thrive, and access to health services, affordable housing, and healthy and sustainably produced food.

c. Existing Conditions

(1) South Coast Air Basin

The Project Site is located within the Los Angeles County non-desert portion of the SCAB. The SCAB is in an area of high air pollution potential due to its climate and topography. The region lies in the semi-permanent high-pressure zone of the eastern Pacific, resulting in a mild climate tempered by cool sea breezes with light average wind speeds. The SCAB experiences warm summers, mild winters, infrequent rainfalls, light winds, and moderate humidity. This usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The SCAB is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the west and high mountains around the rest of its perimeter. The mountains and hills within the area contribute to the variation of rainfall, temperature, and winds throughout the region.

The SCAB experiences frequent temperature inversions that help to form smog. While temperature typically decreases with height, it actually increases under inversion conditions as altitude increases, thereby preventing air close to the ground from mixing with the air above. As

a result, air pollutants are trapped near the ground. During the summer, air quality problems are created due to the interaction between the ocean surface and the lower layer of the atmosphere. This interaction creates a moist marine layer. An upper layer of warm air mass forms over the cool marine layer, preventing air pollutants from dispersing upward. Additionally, hydrocarbons and NO₂ react under strong sunlight, creating smog. Light daytime winds, predominantly from the west, further aggravate the condition by driving air pollutants inland toward the mountains.

Air quality problems also occur during the fall and winter, when CO and NO₂ emissions tend to be higher. CO concentrations are generally worse in the morning and late evening (around 10:00 p.m.) when temperatures are cooler. High CO levels during the late evenings result from stagnant atmospheric conditions trapping CO. Since CO emissions are produced almost entirely from automobiles; the highest CO concentrations in the SCAB are associated with heavy traffic. NO₂ concentrations are also generally higher during fall and winter days.

(2) SCAB Attainment Status

The AQMP provides the framework for air quality basins to achieve attainment of the state and federal ambient air quality standards through the State Implementation Plan. The attainment status for the SCAB is shown in Table IV.B-2, *Attainment Status of Criteria Pollutants in the South Coast Air Basin*.

Table IV.B-2
Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State	Federal
Ozone – 1-hour	Extreme Nonattainment	No Federal Standard
Ozone – 8-hour	Nonattainment	Extreme Nonattainment
PM ₁₀	Nonattainment	Attainment
PM _{2.5}	Nonattainment	Serious Nonattainment
CO	Attainment	Attainment
NO ₂	Attainment	Attainment
SO ₂	Attainment	Attainment
Lead	Attainment	Nonattainment (Los Angeles County only)
All Others	Attainment/Unclassified	Attainment/Unclassified

Source: California Air Resources Board. 2017, December 19. Area Designations Maps/State and National. <http://www.arb.ca.gov/desig/desig.htm>.

(3) Multiple Air Toxics Exposure Study IV

The Multiple Air Toxics Exposure Study (MATES) is a monitoring and evaluation study on existing ambient concentrations of TACs and the potential health risks from air toxics in the SCAB. In 2008, SCAQMD conducted its third update, MATES III, based on the OEHHA 2003 Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments (2003 HRA Guidance Manual). The results showed that the overall risk for excess cancer from a lifetime

exposure to ambient levels of air toxics was about 1,200 in a million. The largest contributor to this risk was diesel exhaust, which accounted for 84 percent of the cancer risk.¹⁵

SCAQMD released the fourth update, MATES IV, which was also based on OEHHA's 2003 HRA Guidance Manual. The results showed that the overall monitored risk for excess cancer from a lifetime exposure to ambient levels of air toxics decreased to approximately 418 in one million. Compared to the 2008 MATES III, monitored excess cancer risks decreased by approximately 65 percent. Approximately 90 percent of the risk is attributed to mobile sources, and 10 percent is attributed to TACs from stationary sources, such as refineries, metal processing facilities, gas stations, and chrome plating facilities. The largest contributor to this risk was diesel exhaust, which accounted for approximately 68 percent of the air toxics risk. Compared to MATES III, MATES IV found substantial improvement in air quality and associated decrease in air toxics exposure. As a result, the estimated SCAB-wide population-weighted risk decreased by approximately 57 percent since MATES III.¹⁶

The guidelines for estimating cancer risks were updated by OEHHA updated on March 6, 2015.¹⁷ The new method uses higher estimates of cancer potency during early life exposures, which result in a higher calculation of risk. There are also differences in the assumptions on breathing rates and length of residential exposures. When combined, SCAQMD estimates that risks for a given inhalation exposure level will be about 2.7 times higher than the risk identified in MATES IV using the 2015 OEHHA guidance methodology (e.g., 2.7 times higher than 418 in one million overall excess cancer risk).¹⁸

(4) Existing Ambient Air Quality

The SCAQMD monitors air quality conditions at 38 locations throughout SCAB. The Project Site is within SCAQMD's Source Receptor Area 3 (SRA) (Southwest Coastal Los Angeles receptor area). Historical data from the Los Angeles – Westchester Parkway Monitoring Station (O₃, NO_x, and PM₁₀) and Compton – 700 North Bullis Road Monitoring Station (PM_{2.5}) were used to characterize existing conditions in the vicinity of the Project area. Table IV.B-3, *2016-2018 Ambient Air Quality Data in Project Vicinity*, below shows pollutant levels, State and federal standards, and the number of exceedances recorded in the area from 2016 through 2018. As shown in the table, the eight-hour federal and state standards for O₃ was exceeded two times and one time, respectively, during this three-year period. In addition, the daily federal standard for PM_{2.5} was exceeded eight times.

¹⁵ South Coast Air Quality Management District: 2008, September. *Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES III)*.

¹⁶ South Coast Air Quality Management District. 2015, October 3. *Final Report Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES IV)*.

¹⁷ Office of Environmental Health Hazard Assessment (OEHHA). 2015, February. *Air Toxics Hot Spots Program Risk Assessment Guidelines. Guidance Manual for Preparation of Health Risk Assessments*.

¹⁸ South Coast Air Quality Management District. 2015, October 3. *Final Report Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES IV)*.

**Table IV.B-3
2016-2018 Ambient Air Quality Data in Project Vicinity**

Pollutant	Pollutant Concentration & Standards	Central Los Angeles		
		2016	2017	2018
Ozone	Maximum 1-hour Concentration (ppm)	0.087	0.086	0.074
	Days > 0.09 ppm (State 1-hour standard)	0	0	0
	Maximum 8-hour Concentration (ppm)	0.080	0.070	0.065
	Days > 0.070 ppm (Federal 8-hour standard)	2	0	0
	Days > 0.070 ppm (State 8-hour standard)	1	0	0
Carbon Monoxide	Maximum 8-hour Concentration (ppm)	N/A	N/A	N/A
	Days > 9.0 ppm (Federal 8-hour standard)	N/A	N/A	N/A
	Days > 9.0 ppm (State 8-hour standard)	N/A	N/A	N/A
Nitrogen Dioxide	Maximum 1-hour Concentration (ppm)	0.0815	0.0722	0.0596
	Days > 0.18 ppm (State 1-hour standard)	0	0	0
PM ₁₀	Maximum 24-hour Concentration (µg/m ³)	43.0	46.5	45.3
	Days > 150 µg/m ³ (Federal 24-hour standard)	0	0	0
	Days > 50 µg/m ³ (State 24-hour standard)	0	0	0
PM _{2.5}	Maximum 24-hour Concentration (µg/m ³)	36.3	66.7	49.4
	Days > 35 µg/m ³ (Federal 24-hour standard)	1	5	2
Sulfur Dioxide	Maximum 24-hour Concentration (ppb)	N/A	N/A	N/A
	Days > 0.04 ppm (State 24-hour standard)	N/A	N/A	N/A

Source: California Air Resources Board. Accessed on September 5, 2019. Air Pollution Data Monitoring Cards (2016, 2017, and 2018). <http://www.arb.ca.gov/adam/topfour/topfour1.php>.

Notes: N/A: Not available at this monitoring station.

(5) Local Air Quality

The Attorney General's Office comment letter, dated September 5, 2018, which was submitted for the previously prepared Mitigated Negative Declaration (MND) for the Project, noted the Project Site is in the Harbor Gateway North neighborhood in the City of Los Angeles, which ranks in the top 5 percent for pollution burden and vulnerability combined according to the CalEPA's screening tool CalEnviroScreen. In July of 2017, Governor Brown signed Assembly Bill 617 to develop a new community focused program to more effectively reduce exposure to air pollution and preserve public health in environmental justice communities. The bill directs CARB and all local air districts to take measures to protect communities disproportionately impacted by air pollution through monitoring and implementing air pollution control strategies. In 2018, the SCAQMD designated the Wilmington/Carson/West Long Beach (WCWLB) community for Year 1 AB 617 implementation. SCAQMD is required to prepare a community emissions reduction plan (CERP) for the designated Year 1 AB 617 communities and implement enhanced and more robust community air monitoring, accelerated retrofitting of pollution controls on facilities, and increased fines. The WCWLB CERP was adopted by the SCAQMD on September 6, 2019. The Project Site is immediately north of the boundary of the WCWLB community.

a. Existing Project Site Emissions

The Project Site is currently vacant and does not generate any existing criteria air pollutant emissions.

b. Sensitive Receptor Locations

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. CARB has identified the following typical groups who are most likely to be affected by air pollution: children under 14; the elderly over 65 years of age; athletes; and people with cardiovascular and chronic respiratory diseases. According to the SCAQMD, sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes.

There are several existing sensitive receptors near the Project Site, including the following:

- The single-family residences approximately 130 feet to the north of the Project Site boundary across the railroad right-of-way and farther north beyond the Rosecrans Recreation Center.
- The multi-family and single-family residences approximately 100 feet and farther to the south of the Project Site boundary across West Redondo Beach Boulevard.
- The multi-family and single-family residences the west and northwest generally along Berendo Avenue.
- Amestoy Elementary School to the northwest.
- South Bay Keiro Nursing Home near the northwest corner of the Project Site across South Vermont Avenue.
- Gardena Convalescent Center to the north near the intersection of South Vermont Avenue and West 149th Street.
- Christian Aragon Daycare to the north beyond the Rosecrans Recreation Center.
- Baby Geniuses Early Learning Daycare to the south along South Vermont Avenue near the southwest corner of the Project Site.
- Twinkle Tots Preschool to the east beyond I-110 along West Redondo Beach Boulevard.

It should be noted that the Rosecrans Recreation Center and Park is located north of the Union Pacific railroad easement. The park uses include baseball fields, approximately 100 feet from the Project Site; a playground, 500 feet from the Project Site; and an indoor recreation space,

approximately 640 feet from the Project Site. As discussed in the Health Risk Assessment provided in Appendix C, while parks are defined as having sensitive receptors, the exposure duration and frequency are much less than that of a typical residential exposure scenario. For instance, residential exposures to Project emissions are assumed to occur 24 hours per day, 350 days per year, whereas park user exposures are typically determined over much lower exposure parameters. An example of a typical park user exposure frequency would be 2 hours per day, 100 days per year (or approximately 2 days per week). Since the Project Site is located approximately the same distance from nearby residences as the baseball fields at Rosecrans Recreation Center, and the exposure parameters for the residences are much greater than park users, the health risks from residential receptors will be higher than those from park uses. Therefore, the health risks at Rosecrans Recreation Center were not included in this evaluation.

3. Project Impacts

a. Thresholds of Significance

In accordance with Appendix G of the State CEQA Guidelines; the Project would have a significant impact related to air quality if it would:

Threshold (a): Conflict with or obstruct implementation of the applicable air quality plan; or

Threshold (b): Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard; or

Threshold (c): Expose sensitive receptors to substantial pollutant concentrations; or

Threshold (d): Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

For this analysis, the Appendix G Thresholds are relied upon. The analysis utilizes factors and considerations identified in the City's 2006 L.A. CEQA Thresholds Guide, as appropriate, to assist in answering the Appendix G Threshold questions. The factors to evaluate air quality impacts are listed below.

(1) Air Quality Construction Emissions

- Combustion Emissions from Construction Equipment
 - Type, number of pieces and usage for each type of construction equipment;
 - Estimated fuel usage and type of fuel (diesel, natural gas) for each type of equipment; and

- Emission factors for each type of equipment.
- Fugitive Dust: Grading, excavation, and hauling
 - Amount of soil to be disturbed on-site or moved off-site;
 - Emission factors for disturbed soil;
 - Duration of grading, excavation and hauling activities;
 - Type and number of pieces of equipment to be used; and
 - Projected haul route.
- Fugitive Dust: Heavy-Duty Equipment Travel on Unpaved Roads
 - Length and type of road;
 - Type, number of pieces, weight and usage of equipment; and
 - Type of soil.
- Other Mobile Source Emissions
 - Number and average length of construction worker trips to Project Site, per day; and
 - Duration of construction activities.

(2) Air Quality Operational Emissions

- Operational emissions exceed 10 tons per year of volatile organic gases or any of the daily thresholds presented below (as reprinted from the CEQA Air Quality Handbook):

Pollutant	Significance Threshold (lbs/day)
VOC	55
NO _x	55
CO	550
PM ₁₀	150
SO _x	150

- Either of the following conditions would occur at an intersection or roadway within one-quarter mile of a sensitive receptor:
 - The proposed Project causes or contributes to an exceedance of the California 1-hour or 8-hour CO standards of 20 or 9.0 parts per million (ppm), respectively; or

- The incremental increase due to the project is equal to or greater than 1.0 ppm for the California 1-hour CO standard, or 0.45 ppm for the 8-hour CO standard.
- The project creates an objectionable odor at the nearest sensitive receptor.

(3) Toxic Air Contaminants

The determination of significance shall be made on a case-by-case basis, considering the following factors:

- The regulatory framework for the toxic material(s) and process(es) involved;
- The proximity of the toxic air contaminants to sensitive receptors
- The quantity, volume and toxicity of the contaminants expected to be emitted;
- The likelihood and potential level of exposure; and
- The degree to which project design will reduce the risk of exposure.

In assessing impacts related to air quality in this section, the City will use Appendix G as the thresholds of significance. The criteria identified above from the Thresholds Guide will be used where applicable and relevant to assist in analyzing the Appendix G thresholds.

(4) SCAQMD's CEQA Air Quality Handbook

The City of Los Angeles utilizes the SCAQMD's CEQA Air Quality Handbook and the thresholds of significance in Tables IV.B-4 and IV.B-5 below as the guidance documents for the environmental review of development proposals within the SCAB.^{19,20}

a. Construction Emissions

Based on the criteria set forth in the SCAQMD's CEQA Air Quality Handbook, the Project may have a significant impact if any of the following would occur:

- Daily regional construction emissions exceed SCAQMD regional construction emissions thresholds for VOC, NO_x, CO, SO_x, PM_{2.5}, or PM₁₀, as presented in Table IV.B-4, *SCAQMD Daily Construction Emissions Thresholds*;
- Maximum on-site emissions during construction exceed the applicable localized

¹⁹ The SCAQMD is currently in the process developing an "Air Quality Analysis Guidance Handbook" to replace its CEQA Air Quality Handbook. While the new handbook is being prepared, SCAQMD has made available supplemental information and guidance including updated significance thresholds, of which this analysis utilizes. The SCAQMD's Air Quality Significance Thresholds are current as of March 2015.

²⁰ South Coast Air Quality Management District. 1993. *California Environmental Quality Act Air Quality Handbook*.

significance thresholds (LSTs) shown in Table IV.B-5, *SCAQMD Localized Significance Thresholds*, resulting in predicted ambient concentrations in the vicinity of the Project Site to trigger a violation of the AAQS when added to the local background concentrations. Localized emissions are those that are identified by SCAQMD as having the potential to have localized impacts on human health from direct emissions.

- To assist lead agencies, SCAQMD developed screening-level LSTs to back-calculate the mass amount (lbs. per day) of emissions generated on-site that would trigger the levels shown in Table IV.B-5 for projects under five acres. These “screening-level” LSTs tables are the localized significance thresholds for all projects of five acres and less; however, they can be used as screening criteria for larger projects to determine whether or not dispersion modeling may be required. Project-related daily on-site construction emissions that do not exceed SCAQMD screening-level construction localized significance thresholds for NO_x , CO, $\text{PM}_{2.5}$, or PM_{10} presented in Table IV.B-6, *SCAQMD Screening Level Construction Localize Significance Thresholds*, are considered to not result in exceeding the LSTs and would result in less than significant LST impacts. For purposes of this analysis, Project-related on-site construction emissions are compared to the screening-level LSTs based on the one acre or less acreage disturbed. In general, the screening-level LSTs are higher and less stringent as the amount of acreage disturbed increases. Because the Project construction activities could result in acreage disturbed up to five acres, use of the acre or less screening-level LSTs results in a conservative analysis.
- Project emissions of Toxic Air Contaminants increases maximum incremental cancer risk by 10 or more in a million, results in an 0.5 excess cancer cases in areas with background risk of 1 or more in a million or increases the chronic and acute hazard index by 1.0 or more.

Table IV.B-4
SCAQMD Daily Construction Emissions Thresholds

Criteria Pollutant	Pounds Per Day
Volatile Organic Compounds (VOC)	75
Nitrogen Oxides (NO_x)	100
Carbon Monoxide (CO)	550
Sulfur Oxides (SO_x)	150
Particulates (PM_{10})	150
Fine Particulates ($\text{PM}_{2.5}$)	55

Source: South Coast Air Quality Management District. 2019, April. SCAQMD Air Quality Significance Thresholds.

Table IV.B-5
SCAQMD Localized Significance Thresholds

Criteria Pollutant (Relevant AAQS)	Concentration
1-Hour CO Standard (CAAQS)	20 ppm
8-Hour CO Standard (CAAQS)	9.0 ppm
1-Hour NO ₂ Standard (CAAQS)	0.18 ppm
Annual NO ₂ Standard (CAAQS)	0.03 ppm
24-Hour PM ₁₀ Standard – Construction (SCAQMD) ¹	10.4 µg/m ³
24-Hour PM _{2.5} Standard – Construction (SCAQMD) ¹	10.4 µg/m ³
24-Hour PM ₁₀ Standard – Operation (SCAQMD) ¹	2.5 µg/m ³
Annual Average PM ₁₀ Standard (SCAQMD) ¹	1.0 µg/m ³

Source: South Coast Air Quality Management District. 2019, April. SCAQMD Air Quality Significance Thresholds.

Table IV.B-6
SCAQMD Screening Level Construction Localize Significance Thresholds

Acreage Disturbed Per Day	Localized Emissions (Pounds Per Day) ¹			
	NO _x	CO	PM ₁₀	PM _{2.5}
1.00 Acre or Less	91	664	5	3

Source: South Coast Air Quality Management District. 2008, July. Final Localized Significance Threshold Methodology; South Coast Air Quality Management District. 2011. Fact Sheet for Applying CalEEMod to Localized Significance Thresholds. <http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod-guidance.pdf?sfvrsn=2>.

Notes:

¹ Screening-level LSTs are based on receptors in SRA 3, a reference distance of 82 feet (25 meters).and an acreage disturbed of an acre or less.

b. Operational Emissions

(i) Regional and Localized Emissions

Based on the criteria set forth in the SCAQMD's CEQA Air Quality Handbook, the Project may have a significant impact with regard to operational emissions if any of the following would occur:

- Daily operational emissions exceed SCAQMD regional thresholds for VOC, NO_x, CO, SO_x, PM_{2.5}, or PM₁₀, as presented in Table IV.B-7, *SCAQMD Daily Operation-Related Regional Emissions Thresholds*;
- Maximum on-site operation-phase emissions exceed the applicable localized significance thresholds (LSTs) shown in Table IV.B-5, resulting in predicted ambient concentrations in the vicinity of the Project Site to trigger a violation of the AAQS when added to the local background concentrations. Localized emissions

are those that are identified by SCAQMD as having the potential to have localized impacts on human health from direct emissions.

- Project-related daily on-site operation emissions that do not exceed SCAQMD screening-level construction localized significance thresholds for NO_x, CO, PM_{2.5}, or PM₁₀ presented in Table IV.B-8, *SCAQMD Screening Level Operation-Related Localized Significance Thresholds*, are considered to not result in exceeding the LSTs and would result in less than significant LST impacts.
- The Project causes or contributes to an exceedance of the California 1-hour or 8-hour CO standards of 20 or 9.0 ppm, respectively, would result in a CO hotspot; or
- The Project creates an odor nuisance pursuant to SCAQMD Rule 402 (i.e., objectionable odor at the nearest sensitive receptor).

Table IV.B-7
SCAQMD Daily Operation-Related Regional Emissions Thresholds

Criteria Pollutant	Pounds Per Day
Volatile Organic Compounds (VOC)	55
Nitrogen Oxides (NO _x)	55
Carbon Monoxide (CO)	550
Sulfur Oxides (SO _x)	150
Fine Particulates (PM _{2.5})	55
Particulates (PM ₁₀)	150

Source: South Coast Air Quality Management District. 2019, April. *SCAQMD Air Quality Significance Thresholds*.

Table IV.B-8
**SCAQMD Screening Level Operation-Related
Localized Significance Thresholds**

Project Site Area	Localized Emissions (Pounds Per Day) ¹			
	NO _x	CO	PM ₁₀	PM _{2.5}
5.00 Acres	197	1,96	4.00	2.00

Source: South Coast Air Quality Management District. 2008, July. *Final Localized Significance Threshold Methodology*.

Notes:

¹ Based on a 5-acre project site in SRA 3 and the minimum reference distance of 82 feet (25 meters).

(ii) Toxic Air Contaminants (TACs)

Based on the criteria set forth in the SCAQMD's *CEQA Air Quality Handbook*, the Project may have a significant toxic air contaminant impact (including carcinogens and non-carcinogens), if

the Project emits carcinogenic or toxic air contaminants that exceed the maximum incremental cancer risk as follows:

- Maximum Incremental Cancer Risk ≥ 10 in 1 million
- Chronic & Acute Hazard Index ≥ 1.0 (project increment)

(iii) Consistency with Applicable Air Quality Plans

To evaluate the Project's consistency with applicable air quality plans, the following criteria are used to evaluate the Project's consistency with the SCAQMD and SCAG regional plans and policies, including the AQMP:

- Criterion 1: Will the Project result in any of the following:
 - An increase in the frequency or severity of existing air quality violations;
 - Cause or contribute to new air quality violations; or
 - Delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP?
- Criterion 2: Will the Project exceed the assumptions utilized in preparing the AQMP?
 - Is the Project consistent with the population and employment growth projections upon which AQMP forecasted emission levels are based;
 - Does the Project include air quality mitigation measures; or
 - To what extent is Project development consistent with the AQMP land use policies?

b. Methodology

The following provides a summary of the construction and operation emissions methodology utilized for the Project analysis.

(1) Construction Emissions Methodology

Construction of the Project is anticipated to commence October 2021 and last through June of 2022, for a duration of approximately 9 months. It is anticipated that construction activities would occur Monday through Friday from 7:00 AM to 4:00 PM. Construction would entail asphalt demolition, on-site processing of asphalt demolition debris, grading, construction of the proposed Project, trenching, paving of the surface parking lot and internal circulation, landscaping, and architectural coating. Approximately 1,000 tons of asphalt demolition would be hauled off-site to

the Ewles Material – Stanton Plant facility in the City of Stanton, while the majority of asphalt demolition debris would be reprocessed on-site. Export of the 1,000 tons of demolition debris would generate up to a total of 100 one-way truck trips (50 truckloads). Table IV.B-9, *Construction Activities, Phasing, and Equipment*, shows the anticipated construction activities, schedule, construction equipment, and construction workers based on information provided by the Applicant and CalEEMod defaults.

Table IV.B-9
Construction Activities, Phasing, and Equipment

Activities	Start/End Dates	Equipment	Workers
Asphalt Demolition	10/1/2021 to 10/29/2021	1 pulverizer & 1 skip loader	6
Asphalt Demolition Debris On-site Processing	10/1/2021 to 11/5/2021	1 crusher/processor & 1 skip loader	6
Rough Grading	11/8/2021 to 12/3/2021	7 scrapers, 1 loader, 1 blade, & 1 water truck	11
Building Construction	12/3/2021 to 6/28/2022	1 crane, 3 forklifts, 1 generator set, 3 loaders, & 1 welder	50
Utility Trenching	1/2/2022 to 1/23/2022	1 backhoe & 1 trencher	4
Fine Grading	4/15/2022 to 4/26/2022	2 skip loaders, 1 blade, 1 scraper, 1 smooth drum roller, & 1 water truck	6
Paving	4/27/2022 to 5/18/2022	1 blade, 2 rollers, & 1 water truck	6
Architectural Coating	5/2/2022 to 5/13/2022	Spray painter & Air Compressor	6
Finishing/Landscaping	5/19/2022 to 6/15/2022	1 backhoe, 1 trencher, & 1 skip loader	15

Note: Based on information provided by the Applicant. Building construction equipment mix based on CalEEMod defaults.

(2) Operational Emissions Methodology

- Transportation:** The annual VMT is based on the average daily trip (ADT) generation and average trip distance traveled for trucks and passenger vehicles provided by Linscott, Law, and Greenspan, Engineers (LLG; Appendix I1).²¹ Overall average daily vehicle trips (ADT) (passenger vehicles and trucks) are based on the City of Los Angeles Department of Transportation's Vehicle Miles Traveled Calculator Version 1.2. Overall, the Project would generate up to 1,977 ADTs (non-passenger equivalent) consisting of 1,209 passenger vehicle ADTs and 768 medium- and heavy-heavy duty truck ADTs, which represent goods service trips.²² Based on the City of Los Angeles Vehicle Miles Traveled Calculator, passenger vehicles are anticipated to average 10.6 miles per trip. Medium- (2 to 3 axle) and heavy-heavy duty trucks (4+-axle trucks) are anticipated

²¹ *Transportation Assessment Report: Prologis Vermont Avenue and Redondo Beach Boulevard Industrial Project (TIA)*, Linscott Law & Greenspan Engineers, July 2, 2020.

²² *Freight trips with the primary purpose of movement of goods.*

to average 39.9 miles per trip. For further details, refer to Appendix C of this DEIR. Project-related on-road criteria air pollutant emissions are based on calendar year 2022 emission rates. The default CalEEMod emissions rates for year 2022 were updated with emission rates derived from EMFAC2017 and CalEEMod methodology.

- **Area Sources:** Area source emissions from use of landscaping equipment are based on CalEEMod default values and the square footage of the proposed buildings and surface parking lot areas.
- **Off-Road Equipment:** It is anticipated the Project would utilize up to 15 electric forklifts and 1 diesel-powered yard truck for daily operations. The yard truck would operate for 4 hours per day and 365 days per year.²³ Diesel-powered yard truck emissions are based on calendar year 2022 OFFROAD2017 emission factors for a 175 horsepower railyard tractor.
- **Energy:** Emissions of criteria air pollutants from natural gas usage (e.g., heating) are based on the CalEEMod defaults for natural gas usage by a general light industrial use. The proposed building is modeled to comply with the 2019 Building Energy Efficiency Standards, which are 30 percent more energy efficient for non-residential buildings than the 2016 Building Energy Efficiency Standards.

(3) Emissions Methodology for Health Risk Assessment

- **Construction:** Construction-related on-road and off-road exhaust PM₁₀ emissions quantified using CalEEMod and based on the assumptions and methodology outlined in Section IV.B.3.b.(3) above, are used as a proxy for construction-related average daily DPM emissions. The average daily emission rates from construction equipment used during the proposed Project were determined by dividing the annual average emissions for each construction year by the number of construction days per year for each calendar year of construction (i.e., 2021 and 2022). The off-site hauling emission rates were adjusted to evaluate localized emissions from the 0.73-mile section of the truck haul route within 1,000 feet of the Project Site.
- **Operation:** The calendar year 2022 EMFAC2017 PM₁₀ emission factor for diesel-fueled vehicles is used as a proxy for DPM. On-site truck travel emissions are based on a lot speed of 5 miles per hour (mph), whereas off-site truck travel

²³ Based on 3.6 yard trucks per million square feet of building space (South Coast Air Quality Management District. 2014, June. SCAQMD High Cube Warehouse Truck Trip Study White Paper Summary of Business Survey Results. <http://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/business-survey-summary.pdf>).

emissions are based on a speed of 25 mph for Orchard Avenue, Vermont Avenue, and freeway on- and off-ramps, and 40 mph for Redondo Beach Boulevard. Idling emission rates for trucks idling at the Project truck bays are based on an idling time of 15 minutes per truck. As stated, diesel-powered yard truck emissions are based on calendar year 2022 OFFROAD2017 emission factors for a 175 horsepower railyard tractor.

c. Project Design Features

The Project would include several project design features that could contribute in minimizing air quality emissions as follows:

- AQ-PDF-1:** The Project will install a minimum of 20 electric vehicle charging stations for electric passenger vehicles with an additional 38 stalls capable of supporting future electric vehicle chargers.
- AQ-PDF-2:** The Project will include at least six tractor trailer parking stalls capable of supporting future electric vehicle supply equipment.
- AQ-PDF-3:** The Project will install a solar photovoltaic (PV) system that would generate a minimum of 460,000 kilowatt-hours per year (kWh/yr) of renewable electricity.
- AQ-PDF-4:** The proposed building will be designed and built to meet the standard for LEED Silver Certification under either the 1) LEED v.4 Building Design and Construction Standards for Core and Shell Development set forth by the U.S. Green Building Council or 2) LEED pre-certified Prologis program.
- AQ-PDF-5:** All forklifts used on-site will be electric-powered.
- AQ-PDF-6:** The project will install a roof with a Solar Reflectance Index (SRI) of 25 or better to reduce surface temperature, heat island effect, and heat transfer to the interior of the structure.

d. Analysis of Project Impacts

Threshold (a): *Would the project conflict with or obstruct implementation of the applicable air quality plan?*

The following describes potential air quality impacts and consistency with the AQMP and City of Los Angeles General Plan Air Quality Element from the implementation of the Project.

(1) Impact Analysis

a. SCAQMD AQMP

A consistency determination with the AQMP plays an important role in local agency project review by linking local planning and individual projects to the AQMP. It fulfills the CEQA goal of informing

decision makers of the environmental efforts of the project under consideration early enough to ensure that air quality concerns are fully addressed. It also provides the local agency with ongoing information as to whether they are contributing to the clean air goals in the AQMP.

The two principal criteria for conformance with an AQMP are:

1. Whether the project would result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timeline attainment of air quality standards.
2. Whether the project would exceed the assumptions in the AQMP.

SCAG is SCAQMD's partner in the preparation of the AQMP, providing the latest economic and demographic forecasts and developing transportation measures. Regional population, housing, and employment projects developed by SCAG are based, in part, on a City's General Plan land use designations. These projections form the foundation for the emissions inventory of the AQMP and are incorporated into the RTP/SCS prepared by SCAG to determine priority transportation projects and vehicle miles traveled in the SCAG region. Because the AQMP strategy is based on projections from local general plans, projects that are consistent with the local general plan are considered consistent with the air quality-related regional plan. Additionally, only large projects have the potential to substantially affect the demographic forecasts in the AQMP.

(i) Criterion 1

With respect to the first criterion, the analyses in the response to Threshold (b) shows that the Project would generate long-term emissions of criteria air pollutants that would exceed SCAQMD's regional operation-phase significance thresholds for NO_x (see Table IV.B-12), which were established to determine whether a project has the potential to cumulatively contribute to the SCAB's nonattainment designations. Thus, implementation of the Project would result in an increase in the frequency or severity of existing air quality violations; cause or contribute to new violations; or delay timely attainment of the AAQS. Therefore, overall, the Project would be considered inconsistent with the AQMP under the first criterion. However, the Project would not exceed SCAQMD's regional operation-phase significance thresholds for VOC, CO, SO₂, PM₁₀, or PM_{2.5}.

(ii) Criterion 2

Is the Project consistent with the population and employment growth projections upon which AQMP forecasted emission levels are based?

The proposed use under the Project would be consistent with the underlying zoning and land use designations for the Project Site and an amendment to the General Plan would not be required. As discussed in Chapter VI (subsection Impacts Found not to be Significant) of this Draft EIR, and in the Initial Study (Appendix A of this Draft EIR), the Project would generate up to 250 employees. This number of anticipated employees would be within the anticipated SCAG employment projections for the City, which is anticipated to increase from 1,696,400 employees

in 2012 to 2,169,100 in 2040, for total net increase of 472,700 employees. In addition, due to the nature of the Project, its development would not result in an increase in population and would not increase the population in the SCAB. Thus, implementation of the Project would not have the potential to substantially affect demographic projections beyond what is accounted for in the current 2016 AQMP. Therefore, the Project would be considered consistent with the AQMP under the first criterion.

Does the Project include air quality mitigation measures?

The analyses in the response to Threshold (b) shows that the Project would generate long-term emissions of criteria air pollutants that would exceed SCAQMD's regional operation-phase significance thresholds for NO_x (see Table IV.B-12), which were established to determine whether a project has the potential to cumulatively contribute to the SCAB's nonattainment designations. Due to the exceedance of the regional significance threshold for NO_x, Mitigation Measures AQ-MM-3 through AQ-MM-6 are prescribed to reduce operation-related impacts. Implementation of Mitigation Measures AQ-MM-3 and AQ-MM-5 would limit off-road equipment used in daily operations and landscaping equipment to be electric-powered only. In addition, Mitigation Measure AQ-MM-6 would require transport trucks to be installed with engines that meet CARB's 2010 emissions standards. Implementation of Mitigation Measures AQ-MM-3 through AQ-MM-6 would reduce emissions to the extent possible. However, the Project would still result in emissions that exceed the regional significance threshold for NO_x (see Table IV.B-14 below). Therefore, while the Project would incorporate mitigation measures, because emissions of NO_x would still exceed its respective regional significance threshold, the Project would be inconsistent with this component of Criterion 2.

To what extent is Project development consistent with the AQMP control measures?

Pursuant to California Health and Safety Code Section 40460, SCAG has the responsibility of preparing and approving the portions of the AQMP relating to the integration of regional land use programs, measures, and strategies. The SCAQMD combines portions of the AQMP with those prepared by SCAG. The Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and Transportation Control Measures (TCM), included as Appendix IV-C of the 2016 AQMP for SCAB, are based on SCAG's 2016-2040 RTP/SCS.²⁴

With regard to land use developments, such as the Project, the RTP/SCS land use control measures focus on locating future growth within HQTAs and the reduction of vehicle trips and VMT. The overarching strategy is to allow the southern California region to grow in more compact communities in existing urban areas and provide neighborhoods with efficient and plentiful public transit and abundant and safe opportunities to walk, bike, and pursue other forms of active

²⁴ South Coast Air Quality Management District. 2017, March. *Appendix IV-C: Regional Transportation Strategy and Control Measures. 2016 Air Quality Management Plan.*
<https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/appendix-iv-c.pdf?sfvrsn=4>.

transportation.²⁵ This strategy would generally reduce VMT from passenger vehicles, which would reduce per capita passenger vehicular-travel-related GHG emissions and achieve the GHG reduction per capita target for the SCAG region established under Senate Bill 375. However, while the RTP/SCS focuses on reducing VMT from passenger vehicles, VMT associated with heavy duty trucks involved in goods movement is generally outside of its realm. In general, the State strategy for the transportation sector for medium and heavy-duty trucks is focused on making trucks more efficient and expediting truck turnover to cleaner and zero-emission trucks rather than reducing VMT from trucks.

The Project would be built in a high-quality transit area (HQTa), which would increase the development intensities in the HQTa in addition to providing 250 jobs to the area. Therefore, the Project would be consistent with the land use control measures, because it focuses employment growth and development within HQTa. Furthermore, the Project would provide improvements to the pedestrian network by installing new or upgraded paved sidewalks along the three roadways that front the Project Site (i.e., Orchard Avenue, Redondo Beach Boulevard, and Vermont Avenue). The Project would also provide public transit improvements by installing a bus turnout and bus shelter for the existing bus stop adjacent to the Project Site on Vermont Avenue. Moreover, 32 bicycle parking spaces would be installed on-site. Improvement of active and public transit infrastructure could contribute to reducing passenger vehicle trips and VMT. Additionally, the Project would provide 20 electric vehicle charging stalls on-site for electric passenger vehicles with an additional 38 stalls capable of supporting future electric vehicle chargers, which would contribute to and support the use of more EVs. Overall, these components of the Project would be consistent with the goal of reducing passenger vehicle VMT per capita. Therefore, the Project would support SCAG's and SCAQMD's objectives of reducing VMT and related vehicular air emissions, the Project is consistent with the control measures of the AQMP.

As mentioned, emissions associated with heavy duty trucks involved in goods movements are generally controlled on the technology side and through fleet turnover of older trucks and engines to newer and cleaner trucks and engines. The first battery-electric heavy-duty trucks are being tested and SCAQMD is looking to integrate this new technology into large-scale truck operations.²⁶ The following State strategies reduce criteria air pollutants and GHG emissions from medium and heavy-duty trucks:

- CARB's Mobile Source Strategy²⁷

²⁵ Southern California Association of Governments. 2016, April 7. *Final 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS): A Plan for Mobility, Accessibility, Sustainability, and a High Quality of Life*.

²⁶ Daimler Trucks: North America. 2019, August 12. *First Freightliner eCascadia Battery Electric Trucks Headed to Customers*, accessed August 12, 2021. <https://daimler-trucksnorthamerica.com/company/newsroom/PressDetail/first-freightliner-ecascadia-battery-electric-trucks-2019-08-12>.

²⁷ California Air Resources Board. 2017, November. *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target*.

- CARB's Sustainable Freight Action Plan²⁸
- CARB's Emissions Reduction Plan for Ports and Goods Movement (Goods Movement Plan).

Additionally, trucks on-site are required to comply with CARB's Heavy-Duty (Tractor-Trailer) GHG Regulation, which requires SmartWay tractor trailers that include idle-reduction technologies, aerodynamic technologies, and low-rolling resistant tires that would reduce fuel consumption and associated emissions.

b. Summary

The Project would represent a substantial increase in emissions compared to existing conditions. The estimated long-term emissions generated under full buildout of the Project would exceed the SCAQMD's regional operational significance threshold for NO_x (see Table IV.B-12) and would cumulatively contribute to the ozone (O₃) and particulate matter (PM₁₀ and PM_{2.5}) nonattainment designations of the SCAB. **Therefore, the Project would be considered inconsistent with the AQMP, resulting in a significant impact in this regard.**

c. City of Los Angeles General Plan Air Quality Element

As stated previously, the City of Los Angeles General Plan Air Quality Element was adopted on November 24, 1992 and sets forth the goals, objectives, and policies, which guide the City in the implementation of its air quality improvement programs and strategies.

In addition, the Air Quality Element identifies 30 policies that identify specific strategies for advancing the City's clean air goals. Project consistency with policies applicable to the Project is illustrated in Table IV.B-10, *Project Consistency with the General Plan Air Quality Element*.

Table IV.B-10
Project Consistency with the General Plan Air Quality Element

Policy	Analysis
Policy 1.3.1 Minimize particulate emissions from construction sites.	Consistent. The Project would minimize particulate emissions during construction through best practices required by SCAQMD Rule 403 (Fugitive Dust).
Policy 1.3.2 Minimize particulate emissions from unpaved roads and parking lots, which are associated with vehicular traffic.	Consistent. The Project would not include development of any unpaved roads or unpaved parking lots. Project-related construction activities could result in vehicles and equipment traveling over unpaved surfaces. However, compliance with SCAQMD Rule 403 Rule, which includes watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, and replacing ground cover quickly, would

²⁸ California Air Resources Board. 2017, November. *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target.*

Table IV.B-10
Project Consistency with the General Plan Air Quality Element

Policy	Analysis
	minimize particulate emissions from construction activities.
<p>Policy 2.1.1. Utilize compressed work weeks and flextime, telecommuting, carpooling, vanpooling, public transit and improve walking/bicycling related facilities in order to reduce vehicle Trips or VMT as an employer and encourage the private sector to do the same to reduce work trips and traffic congestion.</p>	<p>Consistent. The Project is required to comply with the City's Traffic Demand Management Ordinance. The proposed Project's TDM program promotes communication and informed choices on transportation alternatives for its employees, including but not limited to providing TDM information and promotional materials and a transit welcome package. The TDM program also encourages alternatives to driving (e.g. carpool program for employees, convenient bicycle parking, and flexible/alternative work schedules), which would be communicated to future employees.</p> <p>Additionally, the proposed Project would improve the existing bus stop at Vermont Avenue and Redondo Beach Boulevard, including providing transit information.</p>
<p>Policy 4.1.2. Ensure that project level review and approval of land use development remains at the local level.</p>	<p>Consistent. The Project would be entitled and environmentally cleared at the local level.</p>
<p>Policy 4.2.3 Ensure that new development is compatible with pedestrians, bicycles, transit, and alternative fuel vehicles.</p>	<p>Consistent. The Project would provide improvements to the pedestrian network by installing new or upgraded paved sidewalks along the three roadways that front the Project Site (i.e., Orchard Avenue, Redondo Beach Boulevard, and Vermont Avenue). In addition, the Project would also provide public transit improvements by installing a bus turnout and bus shelter for the existing bus stop adjacent to the Project Site on Vermont Avenue. Moreover, 32 bicycle parking spaces would be installed on-site. Furthermore, The Project would provide 20 electric vehicle charging stalls for electric passenger vehicles with an additional 38 stalls capable of supporting future electric vehicle chargers. These proposed improvements of the Project could contribute to increasing active and public transit use in addition to supporting use of alternative fueled vehicles. Thus, these Project components are compatible with the goal of Policy 4.2.3.</p>
<p>Policy 4.2.4 Require that air quality impacts be a consideration in the review and approval of all discretionary projects.</p>	<p>Consistent. The Project's air quality impacts are analyzed in this section. The air quality analyses will be considered by the local decision-maker in the Project review and approval process.</p>

Table IV.B-10
Project Consistency with the General Plan Air Quality Element

Policy	Analysis
Policy 4.2.5. Emphasize trip reduction, alternative transit, and congestion management measures for discretionary projects.	Consistent. As stated above, the Project would provide improvements to the pedestrian network by installing new or upgraded paved sidewalks along the three roadways that front the Project Site. In addition, the Project would also provide public transit improvements by installing a bus turnout and bus shelter for the existing bus stop adjacent to the Project Site on Vermont Avenue. Moreover, 32 bicycle parking spaces would be installed on-site. Furthermore, The Project would provide 20 electric vehicle charging stalls for electric passenger vehicles with an additional 38 stalls capable of supporting future electric vehicle chargers. These components of the Project would be consistent with the emphasis of reducing passenger vehicle trips and increasing alternative transit use.

Source: City of Los Angeles. 1992. City of Los Angeles General Plan Air Quality Element.

As illustrated in the table above, the Project is consistent with the applicable policies in the General Plan Air Quality Element. **Therefore, Project impacts related to General Plan consistency would be less than significant.**

(2) Mitigation Measures

Mitigation Measures AQ-MM-3 through AQ-MM-6, identified under Threshold (b) would reduce impacts related to inconsistency with the AQMP.

(3) Level of Significance After Mitigation

Incorporation of Mitigation Measures AQ-MM-3 through AQ-MM-6 would contribute to minimizing criteria air pollutant emissions from operation of the Project. However, as discussed below in Section IV.B.3.b.(3), even with incorporation of mitigation, Project-related operation-phase activities would still result in NO_x emissions exceeding the SCAQMD regional significance threshold (see Table IV.B-14 below). Thus, the Project would continue to be inconsistent with the AQMP. Therefore, this impact would remain significant and unavoidable.

Threshold (b): Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

(1) Impact Analysis

The following evaluates the potential construction- and operation-related regional air quality impacts from development of the Project.

a. Construction

Construction activities would temporarily increase PM₁₀, PM_{2.5}, VOC, NO_x, SO_x, and CO regional emissions in the SCAB. The primary source of NO_x, CO, and SO_x emissions is the operation of construction equipment. The primary sources of particulate matter (PM₁₀ and PM_{2.5}) emissions are activities that disturb the soil, such as grading and excavation, road construction, and building demolition and construction. The primary source of VOC emissions is the application of architectural coating and off-gas emissions associated with asphalt paving. A discussion of health impacts associated with air pollutant emissions generated by construction activities is included in Section IV.B.2.a, *Air Pollution and Potential Health Effects*.

The Project is anticipated to be constructed over an approximately 9-month period from October 2021 through June 2022. Construction air pollutant emissions are based on the preliminary information provided by the Applicant and CalEEMod defaults and are subject to changes during final design and as dictated by field conditions. Construction would entail asphalt demolition, on-site processing of asphalt demolition debris, grading, construction of the proposed land use, trenching, paving of the surface parking lot and internal circulation, landscaping, and architectural coating. An estimate of maximum daily construction emissions for the Project is provided in Table IV.B-11, *Maximum Daily Regional Construction Emissions*.

Table IV.B-11
Maximum Daily Regional Construction Emissions

Construction Year	Pollutants (Pounds Per Day) ^{1,2}					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Year 2021	4	37	29	<1	7	2
Year 2022	142	44	38	<1	4	2
Maximum Daily	142	44	38	<1	7	2
SCAQMD Regional Significance Thresholds	75	100	550	150	150	55
Significant?	Yes	No	No	No	No	No

Source: CalEEMod Version 2016.3.2

Notes: Emissions totals may not equal 100 percent due to rounding. Bold = Exceedance

¹ Based on the preliminary information provided by the Applicant. Where specific information regarding project-related construction activities was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by SCAQMD of construction equipment.

² Includes implementation of fugitive dust control measures required by SCAQMD under Rule 403 (PPP AIR-4), including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186-compliant sweepers.

As shown in the table, construction activities associated with development of the project could potentially exceed the SCAQMD regional threshold for VOC. The maximum daily emission of 142 lbs/day of VOC would occur during the overlap of the building construction, architectural coating, and asphalt paving activities. The primary source of VOC, which is a precursor to the formation of O₃, would be from paints used for architectural coating and parking lot surface striping. Project-related emissions of VOC would contribute to the O₃ nonattainment designations of the SCAB. Therefore, Project-related construction activities would result in potentially significant regional air quality impacts.

b. Operation

Buildout of the Project would result in direct and indirect criteria air pollutant emissions from transportation, energy (e.g., natural gas use), and area sources (e.g., aerosols and landscaping equipment). Long-term air pollutant emissions generated by a warehousing development are typically associated with the burning of fossil fuels in cars and trucks (mobile sources); energy use for cooling, heating, and manufacturing (energy); and area sources, such as architectural coatings, landscape equipment, and off-road equipment used for daily operations (e.g., yard trucks). Table IV.B-12, *Maximum Daily Regional Operational Phase Emissions*, identifies the maximum daily criteria air pollutant emissions that would result from implementation of the Project.

Table IV.B-12
Maximum Daily Regional Operational Phase Emissions

Source	Pollutants (Pounds Per Day)					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Area	8	<1	<1	0	<1	<1
Energy ¹	<1	2	2	<1	<1	<1
Mobile – Passenger ²	3	3	35	<1	10	3
Mobile – Trucks ²	6	178	43	1	30	10
Off-Road Equipment ³	<1	<1	2	<1	<1	<1
Maximum Daily	17	183	81	1	40	13
SCAQMD Regional Significance Thresholds	55	55	550	150	150	55
Significant?	No	Yes	No	No	No	No

Notes:

¹ Buildings constructed after January 1, 2020 are required to meet the 2019 Building Energy Efficiency Standards. Modeling also includes applicable water efficiency improvements required under CALGreen.

² Based on calendar year 2022 aggregated emission rates derived EMFAC2017 Version 1.0.2 and CalEEMod methodology.

³ Based on a diesel-powered yard truck at the facility operating for four hours per day and on calendar year 2022 OFFROAD2017 Version 1.0.1 emission rates for a 175-horsepower diesel-powered rail yard tractor.

As shown in the table, Project-related air pollutant emissions from daily operations would exceed the SCAQMD's regional emissions threshold for NO_x. The primary sources of long-term criteria air pollutant emissions would be Project-generated vehicle trips. The Project would generate up to 1,977 weekday ADTs (non-passenger car equivalent) consisting of 1,209 passenger vehicle ADTs and 768 medium- and heavy-heavy duty truck ADTs. Emissions of NO_x that exceed the SCAQMD regional threshold would cumulatively contribute to the O₃ and particulate matter (PM₁₀ and PM_{2.5}) nonattainment designations of the SCAB. **Therefore, the project would result in a potentially significant impact because it would significantly contribute to the nonattainment designations of the SCAB.**

(2) Mitigation Measures

a. Regional Construction Impacts

AQ-MM-1 During construction, the construction contractor shall, at minimum, use paints with a volatile organic compound (VOC) content of 25 grams per liter or less for all interior and exterior building coatings. This mitigation measure shall be noted on all construction management plans verified by the City of Los Angeles prior to issuance of any construction permits and during coating activities.

AQ-MM-2 During construction, the construction contractor shall, at minimum, use paints with a volatile organic compound (VOC) content of 50 grams per liter or less for all surface parking lot striping. This mitigation measure shall be noted on all construction management plans verified by the City of Los Angeles prior to issuance of any construction permits and during parking lot coating activities.

b. Regional Operation Impacts

AQ-MM-3 Only electric-powered off-road equipment (e.g., yard trucks/hostlers) shall be utilized on-site for daily warehouse and business operations. The Project developer/facility owner shall disclose this mitigation measure to all tenants/business entities prior to the signing of any lease agreement. In addition, the limitation to use only electric-powered off-road equipment shall be included all leasing agreements.

Prior to issuance of a Business License for a new tenant/business entity, the Project developer/facility owner and tenant/business entity shall provide to the City of Los Angeles Department of City Planning and Office of Finance a signed document (verification document) noting that the Project development/facility owner has disclosed to the tenant/business entity the requirement to use only electric-powered equipment for daily operations. This verification document shall be signed by authorized agents for the Project developer/facility owner and tenant/business entities. In addition, if applicable, the tenant/business entity shall provide documentation (e.g., purchase or rental agreement) to the City of Los Angeles Department of City Planning and Office of Finance to verify, to the City's satisfaction, that any off-road equipment utilized will be electric-powered.

AQ-MM-4 To reduce idling emissions from transport trucks, signage shall be placed at truck access gates, loading docks, and truck parking areas that identify applicable California Air Resources Board (CARB) anti-idling regulations (e.g., Rule 2485). At minimum, each sign shall include (1) instructions for truck drivers to shut off engines when not in use; (2) instructions for drivers of diesel trucks to restrict non-essential idling to no more than two consecutive minutes; and (3) telephone numbers of the building facilities manager and CARB to report violations. All signage shall be made of weather-proof materials. All site and architectural plans submitted to the City of Los Angeles Department of City Planning shall note the

locations of these signs. Prior to issuance of the Certificate of Occupancy, the final construction monitoring report shall include verification that signage has been installed.

AQ-MM-5 All landscaping equipment (e.g., leaf blower) used for property management shall be electric-powered only. The property manager/facility owner shall provide documentation (e.g., purchase, rental, and/or services agreement) to the City of Los Angeles Department of City Planning to verify, to the City's satisfaction, that all landscaping equipment utilized will be electric-powered.

AQ-MM-6 All transport trucks utilized for daily operations shall have engines that meet the California Air Resources Board's 2010 engine emissions standards specified in California Code of Regulations, Title 13, Article 4.5, Chapter 1, Section 2025 (i.e., 0.01 gram per brake horsepower-hour (g/bhp-hr) of particulate matter and 0.20 g/bhp-hr of NO_x emissions). The Project developer/facility owner shall disclose this mitigation measure to all tenants/business entities prior to the signing of any lease agreement. In addition, the aforementioned truck/engine requirement shall be included all leasing agreements.

Prior to issuance of a Business License for a new tenant/business entity, the Project developer/facility owner and tenant/business entity shall provide to the City of Los Angeles Department of City Planning and Office of Finance a signed document (verification document) noting that the Project developer/facility owner has disclosed to the tenant/business entity the truck requirement for daily operations and tenant/business entity shall comply with the provisions of this mitigation measure. This verification document shall be signed by authorized agents for the Project developer/facility owner and tenant/business entities.

(3) Level of Significance After Mitigation

a. Regional Construction Impacts

Implementation of Mitigation Measures AQ-MM-1 and AQ-MM-2 would require use of low VOC content paints for the proposed building and for the surface parking lot. As shown in Table IV.B-13, *Maximum Daily Regional Construction Emissions With Mitigation*, incorporation of Mitigations Measures AQ-MM-1 and AQ-MM-2 would reduce Project-related construction emissions of VOC to below its regional significance threshold. Therefore, regional construction impacts would be reduced to less than significant.

Table IV.B-13
Maximum Daily Regional Construction Emissions With Mitigation

Construction Year	Pollutants (Pounds Per Day) ^{1,2}					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Year 2021	4	37	29	<1	7	2
Year 2022	73	44	38	<1	4	2
Maximum Daily	73	44	38	<1	7	2
SCAQMD Regional Significance Thresholds	75	100	550	150	150	55
Significant?	No	No	No	No	No	No

Source: CalEEMod Version 2016.3.2

Notes: Emissions totals may not equal 100 percent due to rounding.

¹ Based on the preliminary information provided by the Applicant. Where specific information regarding Project-related construction activities was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by SCAQMD of construction equipment.

² Includes implementation of fugitive dust control measures required by SCAQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186-compliant sweepers. Also incorporates Mitigation Measures AQ-MM-1 and AQ-MM-2.

b. Regional Operation Impacts

Implementation of Mitigation Measures AQ-MM-3 and AQ-MM-5 would limit off-road equipment used in daily operations and landscaping equipment to be electric-powered only. In addition, Mitigation Measure AQ-MM-6 would require transport trucks to be installed with engines that meet CARB's 2010 emissions standards. Implementation of Mitigation Measures AQ-MM-3 through AQ-MM-6 would reduce emissions to the extent possible. However, as shown in Table IV.B-14, *Maximum Daily Regional Operations Emissions With Mitigation*, Project-related operation phase emissions would still exceed the NO_x regional significance threshold. Therefore, regional operation impacts would remain significant and unavoidable, and the Project would cumulatively contribute to the nonattainment designations of the SCAB.

However, the Project will be subject to the SCAQMD's Warehouse Indirect Source Rule 2305 and Rule 316, which are programs focused on reducing emissions from vehicles that service large warehouses. Potential emission reductions from this program may further reduce the Project's estimated emissions.

Table IV.B-14
Maximum Daily Regional Operational Phase Emissions With Mitigation

Source	Pollutants (Pounds Per Day)					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Area ¹	7	0	0	0	0	0
Energy ²	<1	2	2	<1	<1	<1
Mobile – Passenger ³	3	3	35	<1	10	3
Mobile – Trucks ⁴	2	131	27	1	21	6
Off-Road Equipment ⁵	0	0	0	0	0	0
Maximum Daily	13	135	64	1	31	9
SCAQMD Regional Significance Thresholds	55	55	550	150	150	55
Significant?	No	Yes	No	No	No	No

Notes:

¹ Incorporates Mitigation Measure AQ-MM-5, which only allows use of electric-powered landscaping equipment.

² Buildings constructed after January 1, 2020 are required to meet the 2019 Building Energy Efficiency Standards. Modeling also includes applicable water efficiency improvements required under CALGreen.

³ Based on calendar year 2022 aggregated emission rates derived EMFAC2017 Version 1.0.2 and CalEEMod methodology.

⁴ Incorporates Mitigation Measure AQ-MM-6. Utilizes aggregated emission rates based on vehicle model years 2010 through 2022 derived from EMFAC2017 Version 1.0.2 and CalEEMod methodology.

⁵ Incorporates Mitigation Measure AQ-MM-3, which only allows use of electric-powered off-road equipment.

On December 24, 2018, in the case, *Sierra Club v. County of Fresno (Friant Ranch, L.P.)* (2018) 6 Cal.5th 502, Case No. S21978 (Friant Ranch), the California Supreme Court held that EIRs for projects must not only identify impacts to human health but also provide an “analysis of the correlation between the project’s emissions and human health impacts” related to each criteria air pollutant that exceeds the regional significance thresholds or explain why it could not make such a connection. In general, the ruling focuses on the correlation of emissions of toxic air contaminants and criteria air pollutants and their impact to human health. Per the *Friant Ranch* ruling, an EIR should make a reasonable effort to substantively connect a project’s criteria pollutant emissions to likely health consequences, or explain why it is not currently feasible to provide such an analysis.

To address the Friant Ranch ruling, the City of Los Angeles prepared the *Air Quality and Health Effects* guidance document.²⁹ This document provides an overview and discussion regarding health consequences associated with exposure to air pollutants and why direct correlation of a project’s pollutant emissions and anticipated health effects is not currently feasible. In general, due to the nature of the available regional model, the purpose of the AAQS, the AAQS being based on concentrations instead of mass emissions, and the complexity in correlating concentration levels with the amount of mass emissions generated, a large change in emissions would be needed to provide observable and meaningful results (see discussion below).³⁰

As discussed in the City’s guidance document, according to the SCAQMD, exceedance of the regional significance thresholds cannot be used to correlate a project to quantifiable health

²⁹ See Appendix C of this DEIR.

³⁰ The term, “AAQS”, refers to both the CAAQS and the NAAQS.

impacts, unless emissions are sufficiently high to use a regional model.³¹ Because the AAQS is applied at the regional level, a regional scale air quality model is necessary to determine the concentrations of the criteria air pollutants in the SCAB and whether they exceed the AAQS. In general, regional scale air quality modeling efforts are conducted by air districts as they are the agencies that oversee compliance of the air basins to the AAQS. Regional air quality models currently available to air districts typically attempt to account for all emissions sources within an air basin. As part of its preparation of the 2012 AQMP, SCAQMD showed that reducing NO_x by 432 tons per day (157,680 tons per year) and VOC by 187 tons per day (68,255 tons per year) would reduce ozone concentration levels by only 9 parts per billion (ppb). Additionally, as part of the environmental assessment for Rule 1315, the SCAQMD conducted pollutant modeling that accounted for essentially all of the increases in emissions due to new or modified sources in the SCAQMD between years 2010 and 2030. The estimated increases approximated to 6,620 pounds per day of NO_x and 89,947 pounds per day of VOC. Overall, the analysis for Rule 1315 showed that the increase in regional pollutant emissions would contribute to only a small increase in the SCAB-wide ozone concentrations in 2030 of 2.6 ppb and less than 1 ppb of NO₂.

As a comparison to a typical development project in the City of Los Angeles, operation of the Olympia Project (a project providing 1.8 million square feet of mixed-used development space) would generate 57 pounds per day of VOC and 67 pounds per day of NO_x, which are 0.06 and 1.0 percent, respectively, of the emissions estimated for Rule 1315. Furthermore, as a comparison to a community plan-level project in the City of Los Angeles, operation of the uses accommodated under the Hollywood Community Plan Update would generate a total of 4,669 pounds per day of VOC and 1,852 pounds per day of NO_x.³² Total daily emissions of VOC and NO_x associated with this plan-level project would represent 5.2 percent and 27 percent of the estimated emissions for Rule 1315, respectively. Thus, when considered in the context of the results determined for Rule 1315, these two projects illustrate that project- and plan-level projects in the City of Los Angeles would result in emissions at much lower rates than those necessary to be able to correlate project emissions with specific health effects.

For the Project, as shown in Table IV.B-14, its operation would generate a maximum daily emission of 135 pounds per day of NO_x (0.07 ton per day or 25 tons per year) and would exceed the regional significance threshold by 80 pounds per day. While it would generate higher emissions compared to the Olympia Project, it would generate much less emissions compared to the Hollywood Community Plan Update Project. Thus, in the regional model and when compared to the emissions estimated for the 2012 AQMP and Rule 1315, the changes in regional emissions generated by the Project are too small a resolution (size of the Project Site and emissions quantity) for the Project to substantially affect the concentrations predicted in the SCAQMD's regional model. Therefore, while Project-related NO_x emissions are conservatively assumed to cumulatively contribute to the O₃, PM₁₀, and PM_{2.5} nonattainment designations because they

³¹ See Attachment 2 of Appendix C.

³² These represent the total emissions associated with the Hollywood Community Plan Update and not the overall net emissions when accounting for the replacement of existing uses. Implementation of the Hollywood Community Plan Update would result in an overall net increase in VOC of 472 pounds per day and an overall decrease in NO_x by 2,763 pounds per day.

exceed the SCAQMD's regional significance threshold for NO_x, it would be speculative to determine the health consequences from the incremental increase in emissions because the Project is unlikely to be large enough (i.e., smaller than the smallest resolution of the regional model) to substantially affect the concentrations predicted in SCAQMD's regional model to provide meaningful results. However, LSTs are indicators of the potential health impacts. Based on the analysis provided under Threshold (c), Project impacts for both construction-related and operational LST risk impacts were determined to be less than significant.

Threshold (c): Would the Project expose sensitive receptors to substantial pollutant concentrations?

(1) Impact Analysis

The following evaluates the potential construction and operational phase localized air quality impacts associated with Project-related criteria air pollutant and TAC emissions.

a. Construction

Construction of the Project could generate new sources of criteria air pollutant and TAC emissions from construction equipment exhaust and fugitive dust (criteria air pollutants only). Implementation of the Project could expose sensitive receptors to elevated pollutant concentrations during construction activities if it would cause or contribute significantly to elevating those levels.

(i) LSTs

The screening-level LSTs are the amount of Project-related emissions at which localized concentrations (ppm or µg/m³) could exceed the CAAQS for criteria air pollutants for which the SCAB is designated nonattainment. They are based on the Project Site size and distance to the nearest sensitive receptor.

Table IV.B-15, *Maximum Daily On-site Construction Emissions*, shows the maximum daily construction emissions (pounds per day) generated during on-site construction activities compared with the SCAQMD's screening-level construction LSTs. As shown in the table, construction-related activities would not generate emissions that would exceed the screening-level LSTs. Thus, Project-related construction emissions would not exceed the CAAQS, and Project construction would not expose sensitive receptors to substantial pollutant concentrations. **Therefore, localized construction-related impacts would be less than significant.**

Table IV.B-15
Maximum Daily On-site Construction Emissions

Construction Phase	Pollutants (Pounds Per Day) ^{1,2}			
	NO _x	CO	PM ₁₀	PM _{2.5}
On-site Asphalt Demolition Debris Reprocessing	7	5	<1	<1
Asphalt Demolition & On-site Asphalt Demolition Debris Reprocessing Overlap	14	10	1	1
Building Construction (Year 2021)	17	17	1	1
Building Construction (Year 2022)	16	16	1	1
Building Construction & Asphalt Paving Overlap (Year 2022)	24	22	1	1
Building Construction, Asphalt Paving, & Architectural Coating Overlap (Year 2022)	26	25	1	1
Building Construction & Utility Trenching Overlap (Year 2022)	20	21	1	1
Building Construction & Finishing/Landscaping Overlap (Year 2022)	19	21	1	1
Building Construction & Fine Grading Overlap (Year 2022)	34	31	2	2
Rough Grading	9	5	4	1
1.00 Acre or Less Screening-Level LST	91	664	5	3
Exceeds Screening-Level LST?	No	No	No	No

Source: CalEEMod Version 2016.3.2; South Coast Air Quality Management District. 2008, July. Final Localized Significance Threshold Methodology; South Coast Air Quality Management District. 2011. Fact Sheet for Applying CalEEMod to Localized Significance Thresholds. <http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod-guidance.pdf?sfvrsn=2>.

Notes: Emissions totals may not equal 100 percent due to rounding. In accordance with SCAQMD methodology, only on-site stationary sources and mobile equipment occurring on the Project Site are included. Screening-level LSTs are based on receptors within 82 feet (25 meters) of the Project Site.

¹ Based on the information provided by the Applicant. Where specific information regarding Project-related construction activities was not available, construction assumptions were based on CalEEMod defaults, which are based on extensive construction surveys conducted by SCAQMD of construction equipment. The South Coast surveys are highly conservative.

² Includes implementation of fugitive dust control measures required by SCAQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186-compliant sweepers.

(ii) Health Risk

The Project would temporarily elevate concentrations of TACs and DPM in the vicinity of sensitive land uses during construction activities. SCAQMD currently does not require health risk assessments for short-term emissions from construction equipment, which primarily consist of DPM. However, this analysis has been included to conservatively gauge the potential health risk-related impacts of short-term construction activities on off-site sensitive receptors.

The Project includes on-site improvements that would occur over a period of nine months. The USEPA AERMOD, Version 9.7, dispersion modeling program was used to determine ground-level DPM concentrations, and the 2015 OEHHA guidance was used to estimate excess lifetime cancer risk and chronic non-cancer hazard index for non-carcinogenic risk at the nearest sensitive receptors. Results of the analysis are shown in Table IV.B-16, *Construction Risk Summary*.

Table IV.B-16
Construction Risk Summary

Receptor	Distance from Project (feet)	Cancer Risk (per million)	Chronic Hazards
Maximum Exposed Receptor – Residential ¹	90	2.61	0.01
Students at Amestoy Elementary School	500	0.06	0.003
Students at Baby Geniuses Early Learning	275	0.95	0.004
Students at Aragon Christian Daycare	640	0.28	0.001
Residents at Kei-Ai South Bay Healthcare Center	160	0.07	0.008
Residents at Gardena Convalescent Center	1,000	0.01	0.001
Significance Thresholds	–	10	1
Exceeds Threshold?	–	No	No

Source: Appendix C.

Note: Cancer risk calculated using 2015 OEHHA HRA guidance.

¹ The residential maximum exposed receptor (MER) is the Santorini Apartments south of the Project Site across Redondo Beach Boulevard.

According to the modeling results and as shown in Figure IV.B-1, *Project Site and Off-Site Receptor Locations for Construction Analysis*, the residential MER is the Santorini Apartments south of the Project Site across Redondo Beach Boulevard. As shown in Table IV.B-16, the maximum incremental cancer risk during the construction phase of the Project at the residential MER is 2.61 per million, which would not exceed the significance threshold of 10 per million. Additionally, the cancer risks for the other sensitive receptors would also not exceed 10 per million. For non-carcinogenic effects, the hazard index identified for each toxicological endpoint totaled less than one for the MER and the other nearby sensitive receptors. Thus, chronic non-carcinogenic hazards are within acceptable limits. **Therefore, off-site health risk impacts associated with Project-related construction activities would be less than significant.**

b. Operation

Operation of the Project could generate new sources of criteria air pollutants and TACs in the project area from area/stationary sources and mobile sources.

(i) LSTs

The screening-level LSTs are the amount of project-related stationary and area sources of emissions at which localized concentrations (ppm or $\mu\text{g}/\text{m}^3$) would exceed the ambient air quality standards for criteria air pollutants for which the SCAB is designated a nonattainment area. Land uses that have the potential to generate substantial stationary sources of emissions or would require a permit from SCAQMD include industrial land uses, such as chemical processing, and warehousing operations where substantial truck idling could occur on-site. On-site emissions include truck maneuvering and idling and a diesel-powered yard truck. Table IV.B-17, *Maximum Daily On-site Operations Emissions*, shows localized maximum daily operational emissions. As shown in the table, on-site Project-related operational emissions would not exceed the screening-level LSTs. Thus, Project-related operation emissions would not exceed the CAAQS, and Project operations would not expose sensitive receptors to substantial pollutant concentrations. **Therefore, localized operation-related impacts would be less than significant.**

Table IV.B-17
Maximum Daily On-site Operation Emissions

Source	Pollutants (Pounds Per Day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Area	<1	<1	<1	<1
Off-Road Equipment ¹	<1	<1	<1	<1
On-site Truck Operation ^{2,3}	1	<1	<1	<1
On-site Truck Idling ²	9	5	<1	<1
Maximum Daily On-site Operation Emissions	10	8	<1	<1
5.00-Acre Screening-Level LST	197	1,769	4.00	2.00
Exceeds Screening-Level LST?	No	No	No	No

Source: South Coast Air Quality Management District. 2008, July. *Final Localized Significance Threshold Methodology*

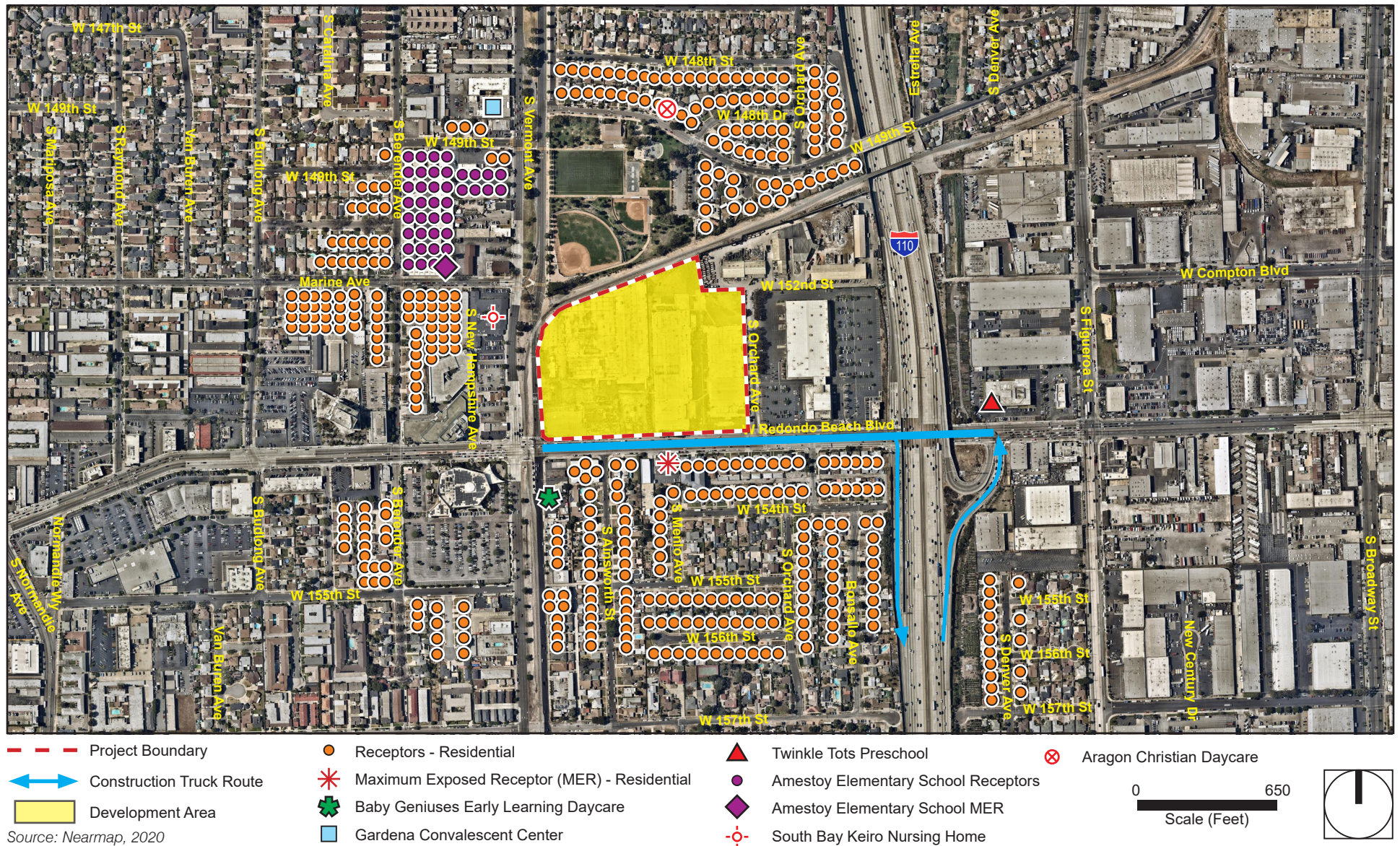
Notes: In accordance with SCAQMD methodology, only on-site stationary sources and mobile equipment occurring on the Project Site are included in the analysis. Operational LSTs are based on sensitive receptors within 82 feet (25 meters) of a 5.0-acre site in SRA 3.

¹ Based on a diesel-powered yard truck at the facility operating for four hours per day and on calendar year 2022 OFFROAD2017 Version 1.0.1 emission rates for a 175-horsepower diesel-powered rail yard tractor.

² Based on year 2022 emission rates derived EMFAC2017 Version 1.0.2 and CalEEMod methodology.

³ Based on the proportion of distance traveled on-site compared to the overall distance traveled. It is anticipated that each truck (768 truck trips) would travel approximately 0.29 mile on-site on average.

Figure IV.B-1 - Project Site and Off-Site Receptor Locations for Construction Analysis



(ii) *Health Risk (Offsite)*

The SCAQMD requires an analysis of toxic air contaminants when the project generates emissions proximate to sensitive receptors in order to ensure that the Project does not expose sensitive receptors to substantial pollutant concentrations. Land uses that generate more than 100 truck trips per day have the potential to substantially increase TAC concentrations and health risks at off-site sensitive land uses within 1,000 feet of the facility.

Operation of the Project would generate TACs emissions from diesel truck activity (truck maneuvering and idling) and from a diesel-powered yard truck in proximity to the same nearby sensitive receptors evaluated in the construction HRA (e.g., residents west, north, and south of the Project Site). The USEPA AERMOD air dispersion modeling program and CARB's Hotspots Analysis and Reporting Program (HARP2) Risk Assessment Standalone Tool were used to estimate excess lifetime cancer risks and chronic noncancer hazard indices at the nearest sensitive receptors.³³ The results of the unmitigated operational HRA are provided in Table IV.B-18, *Operation Risk Summary*.

Table IV.B-18
Operation Risk Summary

Maximum Exposed Receptor	Source	Cancer Risk (per million)	Chronic Hazards
Maximum Exposed Receptor – Resident ¹	All Sources	5.2	0.001
Student at Amestoy Elementary School	All Sources	0.02	<0.001
Student at Baby Geniuses Early Learning	All Sources	0.1	<0.001
Student at Aragon Christian Daycare	All Sources	0.05	<0.001
Twinkle Tots	All Sources	0.2	<0.001
Kei-Ai South Bay Healthcare Center	All Sources	0.5	0.001
Gardena Convalescent Center	All Sources	0.1	<0.001
Significance Thresholds		10	1
Exceed Threshold?		No	No

Source: Appendix C.

¹ The residential MER from Project operations is the multi-family residence at the corner of Redondo Beach Boulevard and the I-110 southbound on-ramp.

According to the modeling results and Figure IV.B-2, *Project Site and Off-Site Receptor Locations for Operational Analysis*, the residential MER from Project operations is the multi-family residence at the corner of Redondo Beach Boulevard and the I-110 southbound on-ramp. As shown in Table IV.B-18, the maximum incremental cancer risk operation of the Project at the residential MER is 5.2 per million, which would not exceed the significance threshold of 10 per million. Additionally, the cancer risks for the other sensitive receptors would also not exceed 10 per million. For non-carcinogenic effects, the hazard index identified for each toxicological endpoint totaled less than one for the MER and the other nearby sensitive receptors. Thus, chronic non-carcinogenic hazards are within acceptable limits. **Therefore, the Project would not expose off-site**

³³ California Air Resources Board. 2019. *Hotspots Analysis and Report Program (HARP2), Risk Assessment Standalone Tool (RAST), Version 19044*.

sensitive receptors to substantial concentrations of air pollutant emissions during project operation and impacts would be less than significant.

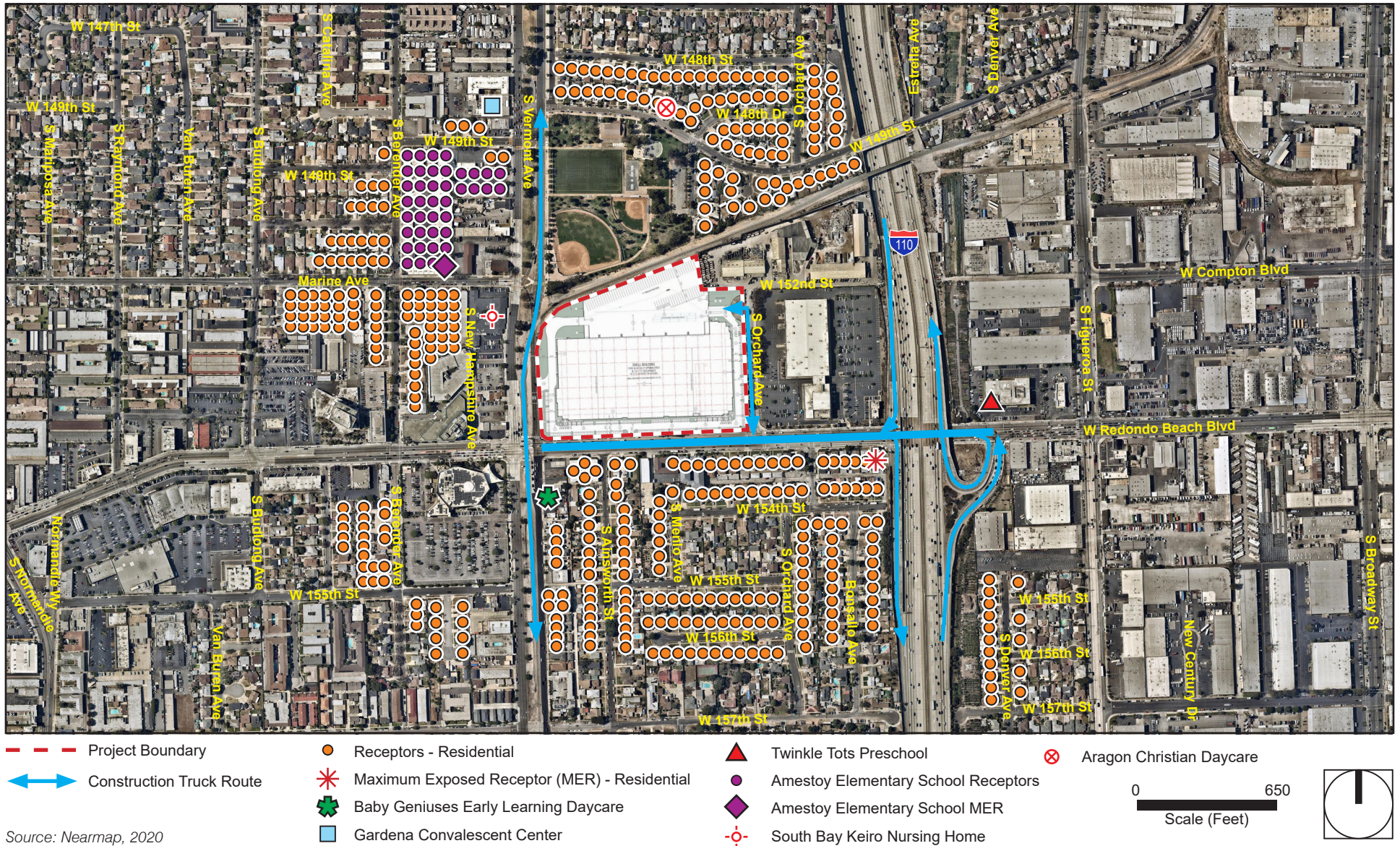
(i) CO Hotspot

Areas of vehicle congestion have the potential to create pockets of CO called hotspots. In 2007, the SCAB was designated in attainment for CO under both the CAAQS and NAAQS. The CO hotspot analysis conducted for the attainment by SCAQMD did not predict a violation of CO standards at the busiest intersections in Los Angeles during the peak morning and afternoon periods.³⁴ The four intersections were Long Beach Boulevard and Imperial Highway; Wilshire Boulevard and Veteran Avenue; Sunset Boulevard and Highland Avenue; and La Cienega Boulevard and Century Boulevard. The busiest intersection evaluated (Wilshire Boulevard and Veteran Avenue) had a daily traffic volume of approximately 100,000 vehicles per day with LOS E in the morning peak hour and LOS F in the evening peak hour. As identified in SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide, peak carbon monoxide concentrations in the SCAB in previous years, prior to redesignation, were a result of unusual meteorological and topographical conditions and not of congestion at a particular intersection.³⁵

³⁴ *The four intersections were: Long Beach Boulevard and Imperial Highway; Wilshire Boulevard and Veteran Avenue; Sunset Boulevard and Highland Avenue; and La Cienega Boulevard and Century Boulevard. The busiest intersection evaluated (Wilshire Boulevard and Veteran Avenue) had a daily traffic volume of approximately 100,000 vehicles per day with LOS E in the morning peak hour and LOS F in the evening peak hour.*

³⁵ *South Coast Air Quality Management District. 1992. Federal Attainment Plan for Carbon Monoxide; South Coast Air Quality Management District. 2003. Final 2003 Air Quality Management Plan. <http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/2003-aqmp>.*

Figure IV.B-2 - Project Site and Off-Site Receptor Locations for Operational Analysis



In addition, based on modeling prepared by the Bay Area Air Quality Management District (BAAQMD), under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact.^{36,37} Full buildout of the Project would result in up to 238 peak hour (AM) trips.³⁸ Thus, based on the findings of the SCAQMD and BAAQMD, implementation of the Project would not produce the volume of traffic required (i.e., 24,000 to 44,000 peak hour vehicle trips) to generate a CO hotspot. **Therefore, implementation of the Project would not have the potential to substantially increase CO hotspots at intersections in the vicinity of the Project area, and impacts would be less than significant.**

c. Combined Construction and Operation

The following evaluates the combined health risks from Project-related construction and operational activities for a 30-year residential scenario. The risks levels shown in Table IV.B-19, *Construction and Operation Risk Summary*, are based on nine months of exposure to construction emissions and 30 years of exposure to operational emissions. As shown in the table, total cancer risks from Project-related construction and operational activities would be 7.8 in a million, which is below the threshold value of 10 per million. For non-carcinogenic effects, the chronic hazard index identified for each toxicological endpoint totaled less than one for residents. Similarly, the combined construction and operational health risks would be below the SCAQMD thresholds for the senior living facilities, Amestoy Elementary School, and the nearby day cares since the determined health risk values for the other nearby sensitive receptors in Tables IV.B-17 and IV.B-18 are lesser than the residential risks for both the construction and operational analyses. **Therefore, the combined construction and operation of the Project would not expose off-site sensitive receptors to substantial concentrations of air pollutant emissions, and health risk impacts would be less than significant.**

³⁶ *The CO hotspot analysis refers to the modeling conducted by the Bay Area Air Quality Management District for its CEQA Guidelines because it is based on newer data and considers the improvement in mobile-source CO emissions. Although meteorological conditions in the Bay Area differ from those in the Southern California region, the modeling conducted by BAAQMD demonstrates that the net increase in peak hour traffic volumes at an intersection in a single hour would need to be substantial. This finding is consistent with the CO hotspot analysis SCAQMD prepared as part of its 2003 AQMP to provide support in seeking CO attainment for the SCAB. Based on the analysis prepared by SCAQMD, no CO hotspots were predicted for the SCAB. As noted in the discussion, the analysis included some of Los Angeles' busiest intersections, with daily traffic volumes of 100,000 or more peak hour vehicle trips operating at LOS E and F.*

³⁷ *Bay Area Air Quality Management District. 2017, May. California Environmental Quality Act Air Quality Guidelines.*

³⁸ *Non-passenger car equivalent.*

**Table IV.B-19
Construction and Operation Risk Summary**

Receptor	Cancer Risk – 30-Year Residential (per million)	Chronic Hazards
Construction Emissions –9-month duration	2.6	0.012
Operational Emissions – 30-year duration	5.2	0.001
Cumulative Total	7.8	0.013
Significance Thresholds	10	1
Exceeds Threshold?	No	No

Source: Appendix C.

(2) Mitigation Measures

The Project would not expose sensitive receptors to substantial pollutant concentrations of air pollutant emissions; impacts are less than significant and no mitigation measures are required.

(3) Level of Significance After Mitigation

The Project would not expose sensitive receptors to substantial pollutant concentrations and impacts were determined to be less than significant. Therefore, no mitigation measures were required or included, and impacts remain less than significant.

Threshold (d): Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

(1) Impact Analysis

Nuisance odors from land uses in the SCAB are regulated under SCAQMD Rule 402, Nuisance, which states:

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

a. Construction

During construction activities, construction equipment exhaust and application of asphalt and architectural coatings would temporarily generate odors. Any construction-related odor emissions would be temporary and intermittent. Additionally, noxious odors would be confined to the immediate vicinity of the construction equipment. Furthermore, short-term construction-related odors are expected to cease upon the drying or hardening of odor-producing materials.

Therefore, impacts associated with Project construction-generated odors are considered less than significant.

b. Operation

The type of facilities that are considered to have objectionable odors include wastewater treatment plants, compost facilities, landfills, solid waste transfer stations, fiberglass manufacturing facilities, paint/coating operations (e.g., auto body shops), dairy farms, petroleum refineries, asphalt batch plants, chemical manufacturing, and food manufacturing facilities. While not likely, the types of businesses accommodated under the Project could result in these types of uses. These types of land uses could generate odors from processes that occur on-site (e.g., decomposition of organic material that would occur at a compost facility, painting operations, etc.). Other potential sources of odors include trucks associated with daily operations and trash storage areas. It is anticipated that odors from trucks and the trash storage areas would be minimized due to the relatively small scale and amount of odors these sources can generate relative to the distance of the nearest off-site receptors in addition to compliance with SCAQMD Rule 402. However, while industrial land uses associated with the Project would be required to comply with SCAQMD Rule 402, additional measures may be necessary to prevent an odor nuisance associated with other sources that may be generated by the aforementioned land uses. **Therefore, industrial land uses associated with the Project have the potential to generate significant odor impacts.**

(2) Mitigation Measures

AQ-MM-7 Prior to issuance of a Business License for a use that has potential to generate nuisance odors beyond the property line (see list below or as determined by the City of Los Angeles Department of City Planning), an odor management plan shall be prepared by the Project developer/facility owner and tenant/business entity and submitted to City of Los Angeles Department of City Planning and Office of Finance for review and verification. Uses that have the potential to generate nuisance odors include, but are not limited to:

- Composting, green waste, or recycling facilities
- Fiberglass manufacturing facilities
- Painting/coating operations
- Large-capacity coffee roasters
- Chemical-processing facilities
- Food-processing facilities

The odor management plan shall show compliance with the South Coast Air Quality Management District's Rule 402 for nuisance odors. The odor management plan shall identify the best available control technologies for toxics (T-BACTs) that will be utilized to reduce potential odors to acceptable levels, including appropriate enforcement

mechanisms. T-BACTs may include, but are not limited to, scrubbers (i.e., air pollution control devices) at the industrial facility. T-BACTs identified in the odor management plan shall be incorporated into the site plan and submitted to the City of Los Angeles Department of City Planning and Office of Finance for verification.

(3) Level of Significance After Mitigation

Mitigation Measure AQ-MM-7 would ensure that odor impacts are minimized, and facilities would comply with SCAQMD Rule 402. Therefore, Project operation-related odor impacts would be reduced to less than significant.

e. Cumulative Impacts

(1) Impact Analysis

a. Regional

In accordance with SCAQMD's methodology, any project that produces a significant project-level regional air quality impact in an area that is in nonattainment contributes to the cumulative impact. Cumulative projects in the local area include new development and general growth in the project area. The greatest source of emissions in the SCAB is mobile sources. Due to the extent of the area potentially impacted from cumulative project emissions (i.e., the SCAB), SCAQMD considers a project cumulatively significant when project-related emissions exceed the SCAQMD regional emissions thresholds shown in Tables IV.B-4 and IV.B-7.

(i) Construction

The SCAB is designated nonattainment for O₃ and PM_{2.5} under the CAAQS and NAAQS and nonattainment for PM₁₀ and lead (Los Angeles County only) under the NAAQS. Ozone is created by chemical reactions between NO_x and VOCs; thus, NO_x and VOCs are precursor to O₃. Construction of cumulative projects would further degrade the regional and local air quality. The Project would not make a cumulative considerable contribution to PM_{2.5} or PM₁₀, but air quality from VOCs would be temporarily impacted during construction activities. However, implementation of mitigation measures would reduce Project-related construction VOC emissions to below the SCAQMD regional significance threshold on a Project-level and cumulative basis. **Therefore, the Project's contribution to cumulative air quality impacts would not be cumulatively considerable with incorporation of mitigation measures.**

(ii) Operation

For operational air quality emissions, any project that does not exceed or can be mitigated to less than the daily regional threshold values is not considered by SCAQMD to be a substantial source of air pollution and does not add significantly to a cumulative impact. Operation of the Project after incorporation of mitigation measures would still result in emissions in excess of the SCAQMD regional emissions thresholds for NO_x. **Therefore, the air pollutant emissions associated with the Project would be cumulatively considerable and, therefore, significant.**

b. Localized

(i) Construction and Operation LSTs

Similar to the regional impact analysis, SCAQMD considers a project cumulatively significant when project-related emissions exceed the SCAQMD LSTs (see Table IV.B-5). The Project would not result in generating onsite construction and operation emissions in exceedance of the screening-level LSTs for construction and operation. **Therefore, the Project would not be cumulatively considerable with regards to construction and operation LST impacts.**

(ii) CO Hotspots

No significant cumulative impacts were identified with regard to CO hotspots.

(iii) Health Risks

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*.³⁹ The SCAQMD report 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 toxic air contaminant (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.”

As described above, the Project-specific and cumulative significance thresholds are the same because the background risk in the SCAB is already high; thus, the threshold is based on the

³⁹ South Coast Air Quality Management District. 2003. *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution*. Authors: Goss, Tracy A and Kroeger, Amy. Accessed on July 17, 2019 at <http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper.pdf>.

potential for a project to cumulatively contribute to elevated levels of risk in the SCAB.⁴⁰ **Therefore, the Project would not result in cumulative impacts since neither the construction nor operational phase of the Project would exceed the Project-specific significance thresholds.**

(iv) *Environmental Justice*

For informational purposes and to address the concerns raised in the Attorney General's office comment letter on the previously prepared and adopted mitigated negative declaration document prepared for this Project, an evaluation of localized health risks is included from these existing emission sources to (1) illustrate the decreasing trends in TAC emissions over the course of the Project to the identified receptor locations and (2) show the Project's contribution to health risk in addition to the existing sources for sensitive receptors in a community that are disproportionately affected by poor air quality.⁴¹ The emission rate calculations, air dispersion modeling, and risk calculations are provided in Appendix C of this DEIR. Similar to the overall air quality and DPM trends in the SCAB, the emissions from these local/nearby sources are projected to greatly decrease over time.

The risks were determined for the existing year (2020), Project buildout (2022, existing sources plus Project) and future year 2050 (existing sources plus Project) and are provided in Table IV.B-20, *Project Plus Existing Off-Site Sources – Health Risks*. The results predict the localized incremental cancer risks from nearby off-site sources plus Project would decrease between 63 and 77 percent in 30 years, compared to existing 2020 emissions. Similarly, the chronic and acute hazards are predicted to decrease between 63 and 74 percent and by 55 percent from 2020 to 2050, respectively. As stated earlier, these values are provided for informational purposes to demonstrate that TAC emissions and health risks are predicted to decrease over time as discussed in Appendix C, Air Quality Trends, and in alignment with SCAQMD's *MATES IV* Study. Refer to the Friant Ranch discussion under Threshold (b), above.

⁴⁰ South Coast Air Quality Management District. 2003. *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution*. Authors: Goss, Tracy A and Kroeger, Amy. Accessed on July 17, 2019 at <http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper.pdf>.

⁴¹ The case number for the previously prepared and adopted mitigated negative declaration CEQA document is CPC-2017-1014-CU-ZAA-SPR. Accessed on July 17, 2019 at: <https://planning.lacity.org/pdiscaseinfo/search/encoded/MjEyOTU10>.

Table IV.B-20
Project Plus Existing Off-Site Sources – Health Risks

Scenario/Year	Cancer Risk		Chronic Index		Acute Hazard Index	
	Cancer Risk (Per Million)	Percent Change from Existing	Chronic Index	Percent Change from Existing	Acute Hazard Index	Percent Change from Existing
Maximum Exposed Receptor – Residential (30-Year) ¹						
2020 Existing	139	NA	0.050	NA	0.008	NA
2022 Existing + Project	78	44% decrease	0.030	40% decrease	0.006	21% decrease
2050 Existing + Project	38	73% decrease	0.014	71% decrease	0.004	55% decrease
Maximum Exposed – Senior Living Resident ²						
2020 Existing	3.3	NA	0.006	NA	0.001	NA
2022 Existing + Project	2.7	20% decrease	0.005	20% decrease	0.001	21% decrease
2050 Existing + Project	1.2	63% decrease	0.002	63% decrease	<0.001	55% decrease
Amestoy Elementary School						
2020 Existing	4.0	NA	0.009	NA	0.005	NA
2022 Existing + Project	2.4	41% decrease	0.006	38% decrease	0.004	21% decrease
2050 Existing + Project	0.9	77% decrease	0.002	74% decrease	0.002	55% decrease
Maximum Exposed – Daycare Receptor ³						
2020 Existing	92	NA	0.069	NA	0.005	NA
2022 Existing + Project	48	48% decrease	0.040	42% decrease	0.004	21% decrease
2050 Existing + Project	22	76% decrease	0.019	72% decrease	0.002	55% decrease

Source: See Appendix C

Notes:

¹ Maximum exposed residential receptor is the multi-family residence at the corner of Redondo Beach Boulevard and the I-110 southbound on-ramp, which is same as Operational HRA MER location.

² Maximum exposed senior living facility is South Bay Keiro Nursing Home.

³ Maximum exposed day care receptor is Twinkle Tots, due to proximity to I-110.

(2) Mitigation Measures

Mitigation Measures AQ-MM-1 through AQ-MM-6 identified under Threshold (b) to reduce construction-related regional VOC emissions and operation-related NO_x emissions impacts apply.

(3) Level of Significance After Mitigation

a. Regional Construction Impacts

As stated under Threshold (b), implementation of Mitigation Measures AQ-MM-1 and AQ-MM-2 would require use of low VOC content paints for the proposed building and for the surface parking lot, which would reduce Project-related construction emissions of VOC to below its regional significance threshold. **With implementation of Mitigation Measures AQ-MM-1 and AQ-MM-2, the Project's contribution to cumulative air quality impacts would not be cumulatively considerable, and cumulative impacts would be reduced to less than significant.**

b. Regional Operation Impacts

Implementation of Mitigation Measures AQ-MM-3 and AQ-MM-5 would limit off-road equipment used in daily operations and landscaping equipment to be electric-powered only. In addition, Mitigation Measure AQ-MM-6 would require transport trucks to be installed with engines that meet CARB's 2010 emissions standards. Implementation of Mitigation Measures AQ-MM-3 through AQ-MM-6 would reduce emissions to the extent possible. However, Project-related operation phase emissions would still exceed the NO_x regional significance threshold. **Therefore, regional operation impacts would remain significant and unavoidable, and the Project would cumulatively contribute to the nonattainment designations of the SCAB.**

c. Construction and Operation LSTs

As identified in Section IV-B.3.e.(1)b.(i) above, the Project would not result in construction- and operation-related cumulative impacts with regards to LSTs and no mitigation is required.

d. CO Hotspots

As identified in Section IV-B.3.e.(1)b.(ii) above, the Project would not result in cumulative CO hotspot impacts and no mitigation is required.

e. Health Risks

As identified in Section IV-B.3.e.(1)b.(iii) above, the Project would not result in construction- and operation-related cumulative impacts with regards to health risk and no mitigation is required.