Appendix A
Air Quality and GHG Technical Report

AIR QUALITY AND GREENHOUSE GAS TECHNICAL REPORT FOR THE 1111 SOUTH HILL STREET PROJECT

PREPARED FOR:

Los Angeles Department of City Planning
200 North Spring Street, Room 621
Los Angeles, CA 90012

PREPARED BY:

ICF
555 W. 5th Street, Suite 3100
Los Angeles, CA 90013

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Acronyms and Abbreviations

Acronym	Definition
°C	Celsius
°F	Fahrenheit
µg/m^3	micrograms per cubic meter
AB	Assembly Bill
ACC	Advanced Clean Cars
AERMOD	American Meteorological Society/Environmental Protection Agency Regulator Model
AFY	acre feet/year
AQMP	air quality management plan
AR4	Fourth Assessment Report
BARCT	best available retrofit control technology
Basin	South Coast Air Basin
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CALGreen Code	Cal Green and Title 24 Building Standards Code
CALGreen	California Green Building Standards
CAPP	Community Air Protection Program
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CH_4	methane
City	City of Los Angeles
CO	carbon monoxide
CO Plan	Federal Attainment Plan for Carbon Monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
COHb	carboxyhemoglobin
CTF	Cleaner Technology and Fuels
DPM	diesel particulate matter
DR	Demand response
EIR	environmental impact report
EOs	executive orders
EV	electric vehicle

Acronym	Definition
FCAA	Federal Clean Air Act
Friant Ranch Project	Community Plan Update and Friant Ranch Specific Plan
g/L	grams per liter
GHG	greenhouse gas
GWP	global warming potential
HC	hydrocarbons
HFC	hydrofluorocarbon
hp	horsepower
HQTA	High Quality Transit Area
HRA	health risk assessment
HVAC	Heating Ventilation and Air Conditioning
IPCC	Intergovernmental Panel on Climate Change
LADWP	Los Angeles Department of Water and Power
LAMC	Los Angeles Municipal Code
LCFS	Low Carbon Fuel Standard
LDV Rule	Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards Rule
LSTs	localized significance thresholds
$MMTCO_2e$	million metric tons of CO_2e
MPO	Metropolitan Planning Organization
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NED	National Elevation Dataset
NO	nitric oxide
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
O_3	ozone
OEHHA	Office of Environmental Health Hazard Assessment
Pb	lead
PDF	project design feature
PFCs	perfluorocarbons
pLAn	Sustainable City pLAn
PM	particulate matter
PM_{10}	particles with an aerodynamic diameter of 10 micrometers or less
$PM_{2.5}$	respirable fine particles with an aerodynamic diameter of 2.5 micrometers or less
ppm	parts per million
PRC	Public Resources Code

Acronym	Definition
project	1111 South Hill Street Project
ROG	Reactive organic gasses
RPS	Renewables Portfolio Standard
RTP/SCS	2020-2045 Regional Transportation Plan/Sustainable Communities Strategy
SAFE	Safer Affordable Fuel-Efficient
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCS	sustainable communities strategies
sf	square feet
SF_6	sulfur hexafluoride
SIP	State Implementation Plan
SJVAPCD	San Joaquin Valley Air Pollution Control District
SLCP	Short-Lived Climate Pollutant
SO_2	sulfur dioxide
SRAs	source receptor areas
TAC	toxic air contaminants
TA	Transportation Assessment
TPA	Transit Priority Area
U.S. EPA	United States Environmental Protection Agency
USC	University of Southern California
USGS	United States Geological Survey's
VMT	vehicle miles traveled
VOC	volatile organic compound
WRCC	Western Regional Climate Center

Chapter 1
Introduction

This Air Quality and Greenhouse Gas Technical Report is provided to support the City of Los Angeles (City) environmental review process and provide information regarding potential effects of air quality and greenhouse gas (GHG) emissions associated with the proposed 1111 South Hill Street project (project) located in the Central City Community Plan area within the City. The analysis provided in this report evaluates the potential for short- and long-term air quality and GHG impacts associated with construction and operation of the project. The analysis includes a description of the environmental setting for the project, including existing air quality and GHG conditions, as well as applicable laws and regulations, and documents the assumptions, methodologies, and findings used to evaluate the project's air quality and GHG impacts.

1.1 Project Description Summary

The project consists of the development of a 40-story mixed-use building on an approximately 0.63-acre site that is located in an urban setting of varied development. Properties surrounding the project site are developed with commercial, institutional, residential, and industrial buildings, as well as surface parking lots. To the north of the project site, across West 11th Street, are two one-story commercial buildings and a surface parking lot. Bordering the project site to the southwest is a surface parking lot and a one-story commercial building (Bank of America); farther to the southwest on the same block is a 12-story office building (Eleven49) adjacent to a 32-story office building (USC Tower). Across South Hill Street to the southeast is a recently constructed seven-story mixed-use building (Axis Apartments) and historic restoration of the Herald Examiner Building to be a mixed-used property for Arizona State University's satellite School of Journalism, creative office suites, retail shops and restaurants, and a 10-story Public Works office building. An alley abuts the project site to the northwest, across from which is a surface parking lot. The project site is currently developed with a two-story warehouse building that has a total area of 81,993 square feet (sf) and has been vacant since approximately 2013, when the building was last occupied by warehouse uses.

The project proposes to remove the existing warehouse and construct a 40-story mixed-use building with TORS , residential, and commercial uses. The building would include one level of subterranean parking, one level of ground floor commercial uses, three levels of aboveground parking, and 36 stories of residential and TORS rooms uses. The project would provide up to 319 multi-family residential units, 160 TORS rooms designated as Transient Oriented Residential Structure (TORS) units[1], and up to 3,429 sf of ground floor commercial uses. It is anticipated that

[1] Per LAMC Section 12.03 a Transient Occupancy Residential Structure (TORS) is, "A residential building designed or used for one or more dwelling units or a combination of three or more dwelling units and not more than five guest rooms or suites of rooms wherein occupancy, by any person by reason of concession, permit, right of access, license, or other agreement is for a period of 30 consecutive days or less, counting portions of calendar days as full days." The 160 TORS units, will be operated as a commercial hotel as further described and delineated herein. Specifically, the TORS units will operate as extended-stay units with kitchens, operating as a commercial hotel. Because the units include kitchens, according to the LAMC they are considered dwelling units. References to "TORS" or "TORS units" throughout this SCEA are to the extended-stay commercial hotel rooms with kitchens

the residential unit count would comprise 24 studio units, 144 one-bedroom units, 127 two-bedroom units, 20 three-bedroom units, and four penthouse units. Residential units will be located in levels 14 through 38 with the TORS levels located on levels six through 13. The ground floor commercial uses would consist of restaurant uses. The project would provide up to 436 vehicle parking spaces, including 325 residential parking spaces and 111 TORS units parking spaces. The project would provide parking within three stories of above grade automated parking with stackers and overhead lifts with valet in one subterranean level. The project would provide 131 Electric Vehicle Ready Parking Spaces including 44 Electric Vehicle Charging Stations. In addition, the project would provide bike parking pursuant to the City of Los Angeles Municipal Code (LAMC), including up to 347 bicycle parking spaces (up to 56 short-term and 291 long-term) within the one level of subterranean parking, the ground level, and the second level of above grade parking. On levels five and 40, outdoor amenities would include a pool and spa, lounge deck, garden, children's play area, a rooftop garden, viewing and lounge decks, and landscaping, for a total of 20,555 sf. Overall, the proposed high-rise building would comprise up to 491,977 sf of floor area and would reach a maximum height of 520 feet above ground level when accounting for rooftop structures.

Energy-saving features and sustainable design would be incorporated throughout the project. The project would be designed to meet the requirements of the Los Angeles Green Building Code, which incorporates the Cal Green and Title 24 Building Standards Code (CALGreen Code). In so doing the project would include features to enhance sustainability, including energy efficiency, water efficiency, material conservation, and resource efficiency. Energy conservation would be achieved through the use of Energy Star appliances and energy efficient heating, ventilation, and air-conditioning (HVAC) and lighting and plumbing systems, while water conservation would be achieved through the use of low flow plumbing fixtures, high efficiency irrigation systems and indoor appliances, and native/drought resistant landscaping. As discussed previously, the project would provide 131 Electric Vehicle Ready Parking Spaces including 44 Electric Vehicle Charging Stations. This equates to approximately 30 percent of the project's parking capacity being prewired for electric vehicle (EV) charging. of which 10 percent will be installed with chargers for immediate use by EVs. The project would also include designated parking for fuel-efficient, ride sharing, and alternative fuel vehicles. Furthermore, the project will provide trash collection that facilitates the separation of organic, recyclable, and non-recyclable trash streams and will divert at least 75 percent of all construction and demolition waste from landfills.

1.2 Nearby Land Uses and Sensitive Receptors

Sensitive receptors are defined as locations where pollutant-sensitive members of the population may reside or where the presence of air pollutant emissions could adversely affect use of the land. Sensitive members of the population include those who may be more negatively affected by poor air quality than other members of the population, such as children, the elderly, or the infirm. In general, residential areas, hospitals, daycare facilities, elder-care facilities, elementary schools, and parks typically contain a high concentration of these sensitive population groups (CARB 2005).

The project site is located in an urbanized area surrounded by a mix of land uses, with existing sensitive receptors located within 500 feet being multi-family residential uses. These nearest multi-family residential uses include:

- The seven-story Axis Apartments building located approximately 85 feet to the east, across South Hill Street;
- The seven-story mixed-use multi-family development building located approximately 425 feet to the north at 1001 S. Olive Street;
- The 20-story Ten50 mixed-use multi-family development building located approximately 435 feet to the northwest at 1050 S. Grand Avenue;
- The 13-story Grand Lofts building located approximately 445 feet to the northwest at 1100 S. Grand Avenue; and
- The 38-story Aven Apartments building located approximately 490 feet to the west at 1120 S. Grand Avenue.

In addition to these existing nearby sensitive receptors, there are also future development projects located within 500 feet of the project site that would include sensitive land uses. These future projects include:

- The proposed 70-story mixed-use building that would include up to 794 residential dwelling units located approximately 265 feet to the northwest at 1045 Olive Street;
- The proposed mixed-use Project located approximately 255 feet to the northwest at 1105 S. Olive Street (at the southwest corner of W. 11th Street and S. Olive Street); and
- The proposed mixed-use DTLA South Park Project located directly west of the alley adjacent to the Project Site at 1120 S. Olive Street (at the southeast corner of W. 11th Street and S. Olive Street).

Chapter 2
Air Quality

2.1 Existing Setting

2.1.1 Regional Climate and Meteorology

The project site is located within the South Coast Air Basin (Basin), an area covering approximately 6,745 square miles and bounded by the Pacific Ocean to the west and south and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to the San Gorgonio Pass area in Riverside County. The terrain and geographical location determine the distinctive climate of the Basin, which is a coastal plain with connecting broad valleys and low hills.

The Southern California region, which includes the Basin, lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate is mild and tempered by cool sea breezes. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The extent and severity of the air pollution problem in the Basin is a function of the area's natural physical characteristics (weather and topography) as well as human-made influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and dispersion of pollutants throughout the Basin, making it an area of high pollution potential.

The greatest air pollution impacts in the Basin occur from June through September. These are generally attributed to the large amount of pollutant emissions, light winds, and shallow vertical atmospheric mixing. This condition frequently reduces pollutant dispersion, thereby causing elevated air pollution levels. Pollutant concentrations in the Basin vary with location, season, and time of day. Ozone concentrations, for example, tend to be lower along the coast, higher in the near inland valleys, and lower in the far inland areas of the Basin and adjacent desert.

The active weather station closest to the project site is a Western Regional Climate Center (WRCC) monitoring station at the University of Southern California (USC) campus (Los Angeles Downtown USC Campus Station [COOP ID 045115]), which is approximately two miles to the southwest of the project site. Given the station's proximity to the project site, historic climatic conditions at the Los Angeles Downtown USC Campus Monitoring Station are assumed to be representative of prevailing climatic conditions. According to climate data recorded from 1877 to 2016 at this station, the average annual maximum temperature in the area is approximately 74 degrees Fahrenheit (°F), and the average annual minimum temperature is approximately 56°F. The average precipitation in the area is approximately 15 inches annually, occurring primarily from December through March (WRCC 2021).

2.1.2 Criteria Air Pollutants

For the protection of public health and welfare, the Federal Clean Air Act (FCAA) requires that the U.S. Environmental Protection Agency (U.S. EPA) establish National Ambient Air Quality Standards (NAAQS) for various pollutants. These pollutants are referred to as "criteria" pollutants. Similarly, the California Clean Air Act (CCAA) requires the California Air Resources Board (CARB) to set standards and designate areas as either attainment or nonattainment based on whether the California Ambient Air Quality Standards (CAAQS) have been achieved. As all criteria pollutants can have human health effects at certain concentrations, the NAAQS and CAAQS define the maximum amount of an air pollutant that can be present in ambient air without harming public health. An ambient air quality standard is generally specified as a concentration averaged over a specific time period, such as one hour, eight hours, 24 hours, or one year. The different averaging times and concentrations are meant to protect against different exposure effects. Standards established for the protection of human health are referred to as primary standards; whereas, standards established for the prevention of environmental and property damage are called secondary standards. The FCAA allows states to adopt additional or more health-protective standards. The air quality regulatory framework and ambient air quality standards are discussed in greater detail later in this report.

Air quality standards have been established for the following six criteria pollutants: ozone (O_3), lead (Pb), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and particulate matter (PM), which consists of PM less than or equal to 10 microns in diameter (PM_{10}) and PM less than or equal to 2.5 microns in diameter ($PM_{2.5}$) (U.S. EPA 2021a). Criteria air pollutants are also categorized as primary and secondary pollutants. In general, primary pollutants are directly emitted into the atmosphere, and secondary pollutants are formed by chemical reactions in the atmosphere. Of the six criteria pollutants, CO, SO_2, PM_{10}, and $PM_{2.5}$ are primary pollutants, while O_3 and NO_2 are secondary pollutants. The following provides a summary discussion of the primary and secondary criteria air pollutants of primary concern.

2.1.3 Ozone (O_3)

O_3, which is the main ingredient in urban smog, is not emitted directly into the air, but is created by chemical reactions between hydrocarbons (HC) and nitrogen oxides (NO_X) (both by-products of the internal combustion engine) in the presence of sunlight. Reactive organic gasses (ROG) are defined by CARB and include all HC except those exempted by CARB that contribute to smog formation, while volatile organic compounds (VOCs) are defined by the U.S. EPA and include all hydrocarbons except those exempted by the U.S. EPA. Generally speaking, ROGs and VOCs are similar but not identical, and their terms are used interchangeably. For purposes of this analysis, the term ROG is used. There are no separate ambient air quality standards for ROGs. Carcinogenic forms of ROG are toxic air contaminants (TACs), which are described below. An example is benzene.

ROG are compounds made up primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Other sources of ROG

are emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols.

The two major forms of NO_X are nitric oxide (NO) and NO_2. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO_2 is a reddish-brown irritating gas formed by the combination of NO and oxygen. In addition to serving as an integral participant in O_3 formation, NO_X also directly acts as an acute respiratory irritant and increases susceptibility to respiratory pathogens.

O_3 poses a higher risk to those who already suffer from respiratory diseases (e.g., asthma), children, older adults, and people who are active outdoors. Exposure to O_3 at certain concentrations can make breathing more difficult, cause shortness of breath and coughing, inflame and damage the airways, aggregate lung diseases, increase the frequency of asthma attacks, and cause chronic obstructive pulmonary disease. Studies show associations between short-term O_3 exposure and non-accidental mortality, including deaths from respiratory issues. Studies also suggest long-term exposure to O_3 may increase the risk of respiratory-related deaths (U.S. EPA 2021b). The concentration of O_3 at which health effects are observed depends on an individual's sensitivity, level of exertion (i.e., breathing rate), and duration of exposure. Studies show large individual differences in the intensity of symptomatic responses, with one study finding no symptoms to the least responsive individual after a 2-hour exposure to 400 parts per billion of ozone and a 50 percent decrement in forced airway volume in the most responsive individual. Although the results vary, evidence suggest that sensitive populations (e.g., asthmatics) may be affected on days when the 8-hour maximum O_3 concentration reaches 80 parts per billion (U.S. EPA 2020).

In addition to human health effect, ozone has been tied to crop damage, typically in the form of stunted growth, leaf discoloration, cell damage, and premature death. Ozone can also act as a corrosive and oxidant, resulting in property damage such as the degradation of rubber products and other materials.

2.1.4 Nitrogen Dioxide (NO_2)

NO_2 is a reddish-brown gas with a bleach-like odor. As discussed previously, both NO and NO_2 are the two major forms of NOx. Per SCAQMD (2008), the vast majority (95 percent) of NOx emissions is in the form of NO. No adverse health effects are associated with NO. However, breathing air with a high concentration of NO_2 can irritate airways in the human respiratory system, leading to increased asthma symptoms, hospital admissions, and visits to the emergency room (U.S. EPA 2021c). NO is converted to NO_2 through reactions with ozone as well as through photochemical reactions with hydrocarbons in the lower atmosphere. These reactions are a function of downwind distance, and SCAQMD assumes 100 percent conversion of NO to NO_2 at 500 meters from the emission source. Therefore, while NOx is a regional pollutant because it contributes to ozone formation, emissions of NOx, specifically due to the localized conversion of NOx to NO_2, can have localized effects.

In healthy people, increase in resistance to air flow and airway contraction is observed after short-term exposure to NO_2. Larger decreases in lung functions are observed in individuals with

asthma and/or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups (SCAQMD 2005).

2.1.5 Carbon Monoxide (CO)

CO is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. Inhaled CO has no direct toxic effect on the lungs, but exerts its effect on tissues by interfering with oxygen transport by competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. Individuals most at risk include those with diseases involving heart and blood vessels, fetuses (unborn babies), and people with chronic hypoxemia (oxygen deficiency) as seen in high altitudes. Exposure to CO at high concentrations can also cause fatigue, headaches, confusion, dizziness, and chest pain (CARB 2021a).

2.1.6 Particulate Matter (PM)

PM consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized—respirable course particles with an aerodynamic diameter of 10 micrometers or less, or PM_{10}, and respirable fine particles with an aerodynamic diameter of 2.5 micrometers or less, or $PM_{2.5}$. Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. However, wind on arid landscapes also contributes substantially to local particulate loading. PM is considered both a local and a regional pollutant.

Particulate pollution can be transported over long distances and may adversely affect the human, especially for people who are naturally sensitive or susceptible to breathing problems. Numerous studies have linked PM exposure to premature death in people with preexisting heart or lung disease. Other symptoms of exposure may include nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms. Depending on its composition, both PM_{10} and $PM_{2.5}$ can also affect water quality and acidity, deplete soil nutrients, damage sensitive forests and crops, affect ecosystem diversity, and contribute to acid rain (U.S. EPA 2021d).

2.1.7 Sulfur Dioxide (SO_2)

SO_2 is a colorless, irritating gas with a "rotten egg" smell primarily formed from the combustion of fossil fuels containing sulfur. SO_2 is considered a local pollutant because it tends to accumulate in the air locally. High concentrations of SO_2 can result in temporary breathing impairment for asthmatic children and adults who are active outdoors. Short-term exposures of asthmatic individuals to elevated SO_2 levels during moderate activity may result in breathing difficulties that can be accompanied by symptoms such as wheezing, chest tightness, or shortness of breath. Other effects that have been associated with longer-term exposures to high concentrations of SO_2, in conjunction with high levels of PM, include aggravation of existing cardiovascular disease,

respiratory illness, and alterations in the lungs' defenses. SO_2 also is a major precursor to $PM_{2.5}$, which is a significant health concern and a main contributor to poor visibility (see also the discussion of health effects of particulate matter).

2.1.8 Lead (Pb)

Pb in the atmosphere is present as a mixture of a number of lead compounds. Leaded gasoline and lead smelters have been the main sources of lead emitted into the air. Due to the phasing out of leaded gasoline, there was a dramatic reduction in atmospheric Pb over the past three decades. Exposure to low levels of Pb can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. Fetuses, infants, and children are more sensitive than others to the adverse effects of Pb exposure. In adults, increased Pb levels are associated with increased blood pressure. Pb poisoning can cause anemia, lethargy, seizures, and death. There is no evidence to suggest that there are direct effects of Pb on the respiratory system.

2.1.9 Toxic Air Contaminants (TAC)

TACs are generally defined as those air pollutants that may increase a person's risk of developing cancer and/or other serious health effects; however, the emission of a toxic chemical does not automatically create a health hazard. Although NAAQS and CAAQS have been established for criteria pollutants, no ambient standards exist for TACs. Many pollutants are identified as TACs because of their potential to increase the risk of developing cancer or because of their acute or chronic health risks. For TACs that are known or suspected carcinogens, CARB has consistently found that there are no levels or thresholds below which exposure is risk-free. Individual TACs vary greatly in the risks they present. At a given level of exposure, one TAC may pose a hazard that is many times greater than another. TACs are identified and their toxicity is studied by the California Office of Environmental Health Hazard Assessment (OEHHA).

Air toxics are generated by many sources, including: stationary sources, such as dry cleaners, gas stations, auto body shops, and combustion sources; mobile sources, such as diesel trucks, ships, and trains; and area sources, such as farms, landfills, and construction sites. Adverse health effects of TACs can be carcinogenic (cancer-causing), short-term (acute) non-carcinogenic, and long-term (chronic) non-carcinogenic. Direct exposure to these pollutants has been shown to cause cancer, birth defects, damage to the brain and nervous system, and respiratory disorders. The principal TAC associated with the proposed project is diesel particulate matter (DPM).

DPM differs from other air toxics in that it is a complex mixture of hundreds of substances rather than a single substance. DPM is typically composed of carbon particles ("soot", also called black carbon) and numerous organic compounds, including over 40 known cancer-causing organic substances such as polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene. As more than 90 percent of DPM is less than 1 micrometer (μm) in diameter (about $1/70^{th}$ the diameter of a human hair), the majority of DPM is small enough to be inhaled into the lungs. Although particles the size of DPM can deposit throughout the lung, the largest fraction deposits in the deepest regions of the lungs where the lung is most susceptible to injury. Health effects associated with exposure to DPM include premature death, hospitalizations,

and emergency department visits for exacerbated chronic heart and lung disease, including asthma, increased respiratory symptoms, and decreased lung function in children (CARB 2021b).

2.1.10 Ambient Air Quality

CARB collects ambient air quality data from a network of air monitoring stations throughout the state. The purpose of the monitoring stations is to measure ambient concentrations of pollutants and determine whether the ambient air quality meets the NAAQS and CAAQS. The closest monitoring station is the Los Angeles-North Main Street station (CARB 70087), which is approximately 2.6 miles northeast of the project site. This station currently monitors ambient concentrations of ozone, NO_2, CO, SO_2, Pb, PM_{10}, and $PM_{2.5}$.

Table 2.1-1 summarizes the concentrations of these pollutants, applicable regulatory standards, and the number of days per year applicable standards were exceeded for the last 3 years from which complete data are available (2017–2019). As discussed above, the CAAQS and NAAQS define clean air and represent the maximum amount of pollution that can be present in outdoor air without any harmful effects on people and the environment. The nearby monitoring station has experienced violations of both the 1-hour and 8-hour ozone and 24-hour PM_{10} CAAQS over the period of record. Additionally, violations of the 8-hour ozone and 24-hour $PM_{2.5}$ NAAQS also occurred during this period. Existing violations of these CAAQS and NAAQS indicate that certain individuals exposed to these pollutants may experience certain health effects, including increased incidence of cardiovascular and respiratory ailments.

Table 2.1-1. Summary of Ambient Air Quality Monitoring Data

Pollutant Standards	2017	2018	2019
1-hour Ozone (O_3)			
Maximum Concentration (ppm)	0.116	0.098	0.085
Number of Days Standard Exceeded			
CAAQS 1-hour standard (0.09 ppm)	2	6	0
8-Hour Ozone (O_3)			
State Maximum Concentration (ppm)	0.086	0.074	0.080
National Maximum Concentration (ppm)	0.086	0.073	0.080
National Fourth-highest Concentration (ppm)	0.080	0.071	0.065
Number of Days Standard Exceeded			
CAAQS 8-hour standard (0.070 ppm)	16	4	2
NAAQS 8-hour standard (0.070 ppm)	14	4	2
Carbon Monoxide (CO)			
Maximum Concentration 1-hour Period (ppm)	2	2	2
Maximum Concentration 8-hour Period (ppm)	1.8	1.7	1.6
Number of Days Standard Exceeded			
NAAQS 8-hour standard (9 ppm)	0	0	0
CAAQS 8-hour standard (9.0 ppm)	0	0	0
NAAQS 1-hour standard (35 ppm)	0	0	0
CAAQS 1-hour standard (20 ppm)	0	0	0
Nitrogen Dioxide (NO_2)			

Pollutant Standards	2017	2018	2019
Maximum 1-hour Concentration (ppm)	0.081	0.070	0.070
Annual Average Concentration (ppm)	0.020	0.018	0.018
Number of Days Standard Exceeded			
CAAQS 1-hour standard (0.18 ppm)	0	0	0
NAAQS 1-hour standard (0.100 ppm)	0	0	0
Sulfur Dioxide (SO_2)			
Maximum 1-hour Concentration (ppm)	0.006	0.018	0.010
Maximum 24-hour Concentration (ppm)	0.002	0.001	0.001
Number of Days Standard Exceeded			
CAAQS 1-hour standard (0.25 ppm)	0	0	0
NAAQS 1-hour standard (0.075 ppm)	0	0	0
CAAQS 24-hour standard (0.04 ppm)	0	0	0
Suspended Particulates (PM_{10})			
State Maximum 24-hour Concentration (µg/m^3)	96.2	81.2	93.9
National Maximum 24-hour Concentration (µg/m^3)	64.6	68.2	62.4
State Annual Average Concentration (CAAQS = 20 µg/m^3)	*	34.0	*
Number of Days Standard Exceeded			
CAAQS 24-hour standard (50 µg/m^3)	40	31	15
NAAQS 24-hour standard (150 µg/m^3)	0	0	0
Suspended Particulates ($PM_{2.5}$)			
National Maximum 24-hour Concentration (µg/m^3)	54.9	61.4	43.5
24-hour Standard 98th Percentile (µg/m^3)	30.9	34.1	28.3
National Annual Average Concentration (µg/m^3)	12.0	12.8	10.8
State Annual Average Concentration (µg/m^3)	16.3	16.0	10.8
Number of Days Standard Exceeded			
NAAQS 24-hour standard (35 µg/m^3)	6	6	1
Lead (Pb)			
Maximum 30-day Average (µg/m^3)	0.017	0.011	0.015
Maximum 30-month Rolling Average (µg/m^3)	0.01	0.01	0.01
Number of Days Standard Exceeded			
CAAQS 30-day Average standard (1.5 µg/m^3)	0	0	0
NAAQS 3-month Rolling Average standard (0.15 µg/m^3)	0	0	0

Sources: CARB 2021c; U.S. EPA 2021e; SCAQMD 2021a. Data compiled by ICF.
ppm = parts per million; μg/m^3 = micrograms per cubic meter; mg/m^3 = milligrams per cubic meter; CAAQS = California Ambient Air Quality Standards; NAAQS = National Ambient Air Quality Standards
* = insufficient data available to determine value

The FCAA requires the U.S. EPA to designate areas within the country as either attainment or nonattainment for each criteria pollutant based on whether the NAAQS have been achieved. Similarly, the CCAA requires CARB to designate areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. If a pollutant concentration is lower than the state or federal standard, the area is classified as being in attainment for that pollutant. If a pollutant violates the standard, the area is considered a nonattainment area. If data are insufficient to determine whether a pollutant is violating the standard, the area is designated unclassified. Additionally, where monitored pollutant concentrations exceeded the standard in question in the past but are no longer in violation of that standard that area is designated a maintenance area. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data show 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 nonattainment.

Table 2.1-2 summarizes the attainment status for the Los Angeles County portion of the Basin with respect to the NAAQS and CAAQS. The CAAQS and NAAQS represent concentration limits of criteria air pollutants needed to adequately protect human health and the environment. Existing violations of the O_3 and PM_{10} ambient air quality standards indicate that certain individuals exposed to this pollutant may experience certain health effects, including increased incidence of acute and chronic cardiovascular and respiratory ailments.

Table 2.1-2. Federal and State Attainment Status for the Los Angeles County Portion of the South Coast Air Basin

Criteria Pollutant	Federal Designation	State Designation
Ozone (O_3) (1-hour standard)	—	Nonattainment
Ozone (O_3) (8-hour standard)	Nonattainment – Extreme (P)	Nonattainment
Carbon Monoxide (CO)	Maintenance – Serious (P)	Attainment
Particulate Matter (PM_{10})	Maintenance – Serious (P)	Nonattainment
Fine Particulate Matter ($PM_{2.5}$)	Nonattainment – Serious (P)	Nonattainment
Nitrogen Dioxide (NO_2)	Maintenance (P)	Attainment
Sulfur Dioxide (SO_2)	Attainment	Attainment
Lead (Pb)	Nonattainment (P)	Attainment

Sources: U.S. EPA 2021f; CARB 2021d; CARB 2021e.
(P) = designation applies to a portion of the county

2.2 Regulatory Framework

2.3 Federal

Federal Clean Air Act

The FCAA was first enacted in 1963 and has been amended numerous times in subsequent years (1967, 1970, 1977, and 1990). The FCAA establishes the NAAQS and specifies future dates for achieving compliance. The FCAA also mandates that each state submit and implement a State Implementation Plan (SIP) for local areas not meeting those standards. The plans must include pollution control measures that demonstrate how the standards will be met. Because the project site is within the Los Angeles County portion of the Basin, it is in an area designated as nonattainment for certain pollutants that are regulated under the FCAA.

The 1990 amendments to the FCAA identify specific emission-reduction goals for areas not meeting the NAAQS. These amendments require both a demonstration of reasonable progress toward attainment and incorporation of additional sanctions for failure to attain or meet interim milestones. The sections of the FCAA that would most substantially affect the development of the project include Title I (Nonattainment Provisions) and Title II (Mobile-Source Provisions).

Title I provisions were established with the goal of attaining the NAAQS for criteria pollutants. Table 2.2-1 shows the NAAQS currently in effect for each criteria pollutant. The NAAQS were amended in July 1997 to include an 8-hour standard for O_3 and adopt a standard for $PM_{2.5}$. The $PM_{2.5}$ NAAQS was most recently amended in 2012 and the 8-hour O_3 NAAQS was further amended in October 2015.

Table 2.3-1. Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	CAAQS	NAAQS[a]
Ozone (O_3)	1-hour	0.09 ppm	-
	8-hour	0.070 ppm	0.070 ppm
Respirable Particulate Matter (PM_{10})	Annual mean	20 µg/m^3	-
	24- hour	50 µg/m^3	150 µg/m^3
Fine Particulate Matter ($PM_{2.5}$)	Annual mean	12 µg/m^3	12 µg/m^3
	24- hour	No Standard	35 µg/m^3
Carbon Monoxide (CO)	1- hour	20 ppm	35 ppm
	8- hour	9.0 ppm	9 ppm
Nitrogen Dioxide (NO_2)	Annual mean	0.030 ppm	0.053 ppm
	1- hour	0.18 ppm	100 ppb
Sulfur Dioxide (SO_2)	Annual mean	-	0.03 ppm

Pollutant	Averaging Time	CAAQS	NAAQS[a]
	24- hour	0.04 ppm	0.14 ppm
	3- hour	-	-
	1- hour	0.25 ppm	75 ppb
Lead (Pb)	30-day Average	1.5 µg/m^3	-
	Calendar Quarter	-	1.5 µg/m^3
	Rolling 3-Month Average	-	0.15 µg/m^3
Sulfates	24- hour	25 µg/m^3	No Federal Standard
Hydrogen Sulfide	1- hour	0.03 ppm (42 µg/m^3)	No Federal Standard
Vinyl Chloride	24- hour	0.01 ppm (26 µg/m^3)	No Federal Standard
Visibility-Reducing Particle Matter	8- hour	-	No Federal Standard

Source: CARB 2016.
ppb= parts per billion; ppm= parts per million; µg/m^3 = micrograms per cubic meter.
[a] National standards are divided into primary and secondary standards. Primary standards are intended to protect public health, whereas secondary standards are intended to protect public welfare and the environment. Only Primary standards are shown here.

2.3.2 Emission Standards for Non-Road Diesel Engines

To reduce emissions from non-road diesel equipment, the U.S. EPA established a series of increasingly strict emission standards for new non-road diesel engines. Tier 1 standards were phased in on newly manufactured equipment from 1996 through 2000 (year of manufacture), depending on the engine horsepower (hp) category. Tier 2 standards were phased in on newly manufactured equipment from 2001 through 2006. Tier 3 standards were phased in on newly manufactured equipment from 2006 through 2008. Tier 4 standards, which require advanced emission control technology, were phased in from 2008 through 2015.

2.3.3 Emission Standards for Heavy-Duty Vehicles

Emissions from heavy-duty trucks are managed by regulations and emission limits implemented at the federal, state, and local levels. The U.S. EPA has established a series of increasingly strict emission standards for new heavy-duty bus and truck engines. In December 2000, the U.S. EPA signed the Heavy-Duty Highway Rule, which reduces emissions from on-road, heavy-duty diesel trucks by establishing a series of increasingly strict emission standards for new engines. Manufacturers were required to produce new diesel vehicles that meet particulate matter and NOx emission standards beginning with model year 2007, with the phase-in period being between 2007 and 2010. The phase-in was based on a percentage-of-sales basis: 50 percent from 2007 to 2009 and 100 percent in 2010. Requirements apply to engines installed in all vehicles with Gross Vehicle Weight Rating above 14,000 pounds, and to some engines installed in vehicles with Gross Vehicle Weight Rating between 8,500 and 14,000 pounds (U.S. EPA 2001). In November 2018, the U.S. EPA announced that it would pursue the Cleaner Trucks Initiative to update NOx emissions standards for heavy-duty trucks. The U.S. EPA is currently working with a range of stakeholders to identify

technologies capable of reducing criteria pollutant emissions from heavy-duty trucks and to develop the data and analyses needed to inform a comprehensive rulemaking (U.S. EPA 2021g).

2.3.4 Corporate Average Fuel Economy Standards

The National Highway Traffic Safety Administration (NHTSA) Corporate Average Fuel Economy (CAFE) standards require substantial improvements in fuel economy and reductions in emissions of criteria air pollutants and precursors, as well as greenhouse gases, from all light-duty vehicles sold in the United States. On August 2, 2018, NHTSA and the U.S EPA proposed an amendment to the fuel efficiency standards for passenger cars and light trucks and established new standards for model years 2021 through 2026 that would maintain the then-current 2020 standards through 2026—this was known as the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule. On September 19, 2019, NHTSA and the U.S. EPA issued a final action on the One National Program Rule, which is considered Part One of the SAFE Vehicles Rule and a precursor to the proposed fuel efficiency standards. The One National Program Rule enables NHTSA and the U.S. EPA to provide nationwide uniform fuel economy and air pollutant standards by 1) clarifying that federal law preempts state and local tailpipe standards, 2) affirming NHTSA's statutory authority to set nationally applicable fuel economy standards, and 3) withdrawing California's CAA preemption waiver to set state-specific standards.

NHTSA and the U.S EPA published their decision to withdraw California's waiver and finalize the regulatory text related to the preemption on September 27, 2019 (84 *Federal Register* 51310). California, 22 other states, the District of Columbia, and two cities filed suit against Part One of the SAFE Vehicles Rule on September 20, 2019 (*California et al. v. United States Department of Transportation et al.,* 1:19-cv-02826, U.S. District Court for the District of Columbia). On October 28, 2019, the Union of Concerned Scientists, Environmental Defense Fund, and other groups filed a protective petition for review after the federal government sought to transfer the suit to the District of Columbia (*Union of Concerned Scientists v. National Highway Traffic Safety Administration*). The lawsuit filed by California and others has been stayed, pending resolution of the petition.

NHTSA and the U.S. EPA published final rules on April 30, 2020, to amend and establish national air pollutant and fuel economy standards (Part Two of the SAFE Vehicles Rule) (85 *Federal Register* 24174). The revised rule changes the national fuel economy standards for light-duty vehicles from 46.7 miles per gallon (mpg) to 40.4 mpg in future years. California, 22 other states, and the District of Columbia filed a petition for review of the final rule on May 27, 2020.[2]

On January 20, 2021, the president issued an executive order, directing NHTSA and the U.S. EPA to review the SAFE Vehicles Rule, Part One, and propose a new rule for suspending, revising, or rescinding it by April 2021. The executive order also requires NHTSA and the U.S. EPA to propose a new rule for suspending, revising, or rescinding Part Two by July 2021. On April 22, 2021, NHTSA announced it proposes to repeal the SAFE Vehicles Rule, Part One, allowing California the right to set its own standards (NHTSA 2021).

[2] California et al. v. United States Department of Transportation et al., 1:19-cv-02826, U.S. District Court for the District of Columbia.

2.3.5 State

2.3.6 California Clean Air Act

The CCAA, signed into law in 1988, requires all areas of the state to achieve and maintain the CAAQS by the earliest practical date. The CAAQS incorporate additional standards for most of the criteria pollutants and set standards for other pollutants recognized by the state. In general, the California standards are more health protective than the corresponding NAAQS. California has also set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. The Basin is in compliance with these standards. Table 2.2-1 shows the CAAQS currently in effect for each criteria pollutant.

The CARB and local air districts bear responsibility for achieving California's air quality standards, which are to be achieved through district-level air quality management plans that would be incorporated into the SIP. In California, EPA has delegated authority to prepare SIPs to CARB, which, in turn, has delegated that authority to individual air districts. CARB traditionally has established state air quality standards, maintaining oversight authority in air quality planning, developing programs for reducing emissions from motor vehicles, developing air emission inventories, collecting air quality and meteorological data, and approving SIPs.

The CCAA substantially adds to the authority and responsibilities of air districts. The CCAA designates air districts as lead air quality planning agencies, requires air districts to prepare air quality plans, and grants air districts authority to implement transportation control measures. The CCAA also emphasizes the control of "indirect and area-wide sources" of air pollutant emissions. The CCAA gives local air pollution control districts explicit authority to regulate indirect sources of air pollution and to establish traffic control measures.

2.3.7 Low Emission Vehicle Program Regulation

On-road vehicles include, but not limited to light-duty automobiles, light-duty to heavy-duty trucks, and buses. In 1990, CARB adopted the first Low-Emission Vehicle (LEV) regulations which required car manufacturers to produce cleaner light-duty and medium-duty vehicles with stricter emissions controls for model years 1994 to 2003. The three primary elements of the first LEV regulations were 1) tiers of exhaust emission standards for increasingly more stringent categories of low-emission vehicles, 2) a mechanism requiring each auto manufacturer to phase-in a progressively cleaner mix of vehicles from year to year with the option of credit banking and trading, and 3) a requirement that a specified percentage of passenger cars and light-duty trucks be zero-emission vehicles (ZEVs) with no exhaust or evaporative emissions (CARB 2021f). The most recent version is LEV III and was adopted in 2012 as part of the Advanced Clean Cars program. LEV II focuses on increasing the stringency of emissions standards for criteria pollutants and GHG emissions for passenger vehicles through the 2025 model year (CARB 2021g).

2.3.8 Statewide Truck and Bus Regulation

CARB adopted the Truck and Bus Regulation in 2008 to focus its efforts to reduce DPM, NOx, and other criteria pollutants from diesel-fueled vehicles. This regulation applied to any diesel-fueled, dual fuel, or alternative diesel-fueled vehicle that would travel on public highways, yard trucks with on-road engines, yard trucks with off-road engines used for agricultural operations, school buses, and vehicles with a gross vehicle weight greater than 14,000 pounds. The purpose of the regulation is to require that nearly all trucks and buses registered in the state to have a 2010 or newer model engine year by 2023. Compliance schedules have been established for lighter vehicles (14,000-26,000 GVWR) and heavier vehicles (26,001+ GVWR) (CARB 2021h). Since January 1, 2020, only vehicles that meet the requirements of the Trucks and Bus Regulation are allowed to register with the California Department of Motor Vehicles.

2.3.9 Carl Moyer Program

The Carl Moyer Memorial Air Quality Standards Attainment Program is a voluntary program that offers grants to owners of heavy-duty vehicles and equipment. The program is a partnership between CARB and the local air districts throughout the state to reduce air pollution emissions from heavy-duty engines. Locally, the air districts administer this program.

2.3.10 Toxic Air Contaminants Regulations

California regulates TACs primarily through the Tanner Air Toxics Act (Assembly Bill [AB] 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). The Toxic Air Contaminant Identification and Control Act (AB 1807) created California's program to reduce exposure to air toxics. The Air Toxics "Hot Spots" Information and Assessment Act (AB 2588) supplements the AB 1807 program by requiring a statewide air toxics inventory, notification of people exposed to a significant health risk, and facility plans to reduce these risks. In August 1998, CARB identified particulate emissions from diesel-fueled engines as TACs. In September 2000, CARB approved a comprehensive diesel risk reduction plan to reduce emissions from both new and existing diesel-fueled engines and vehicles. As an ongoing process, CARB reviews air contaminants and identifies those that are classified as TACs. CARB also continues to establish new programs and regulations for the control of TACs, including DPM, as appropriate.

CARB has promulgated the Airborne Toxic Control Measures (ATCM) for several source categories that are codified in the California Code of Regulations (CCR). The ATCM specifies measures to reduce public exposure to diesel particulate matter and other air contaminants by establishing idling restrictions, emission standards, and other requirements for heavy-duty diesel engines and alternative idle-reduction technologies to limit the idling of diesel-fueled commercial motor vehicles. One ATCM (13 CCR Section 2485) requires that drivers of diesel-fueled commercial motor vehicles with gross vehicle weight ratings greater than 10,000 pounds, including buses and sleeper berth equipped trucks, not idle the vehicle's primary diesel engine longer than five minutes at any location.

In 2017, Governor Jerry Brown signed AB 617 into law to develop a new community focused program to more effectively reduce exposure to air pollution and preserve public health. CARB and

local air quality districts are directed to take measures to protect communities disproportionally impacted by air pollution through local, community-specific strategies that are focused on the individual needs and issues particular to each community. Tasked to prepare a statewide strategy to reduce emissions in communities affected by high exposure to air pollution, CARB has established the Community Air Protection Program (CAPP) to identify and prioritize communities on an annual basis where reduction from pollution exposure is needed based on environmental, health, and socioeconomic information. This statewide effort to reduce exposure in communities most impacted by air pollution will require community air monitoring, community emission reduction plans, and incentive funding to deploy the cleanest technologies in the most impacted areas. While CARB ultimately selects the communities to be included in the CAPP and establishes the program requirements, AB 617 places the responsibility for the development and implementation of community emissions reduction programs primarily on the local air quality districts. Specifically, once communities are selected for action by CARB, the local air quality districts are tasked to: (1) form a community steering committee and begin development of community emission reduction programs; 2) develop expedited schedules for implementing best available retrofit control technology (BARCT) requirements; (3) deploy monitoring in communities selected for community air monitoring systems; and (4) adopt programs to reduce emissions in the selected communities (CARB 2021i).

2.3.11 Regional

2.3.12 South Coast Air Quality Management District

At the regional level, responsibilities of air quality districts include overseeing stationary-source emissions, approving permits, maintaining emissions inventories, maintaining air quality stations, overseeing agricultural burning permits, and reviewing air quality–related sections of environmental documents required by CEQA. The air quality districts are also responsible for establishing and enforcing local air quality rules and regulations that address the requirements of federal and state air quality laws and for ensuring that NAAQS and CAAQS are met.

The project site lies within the Los Angeles County portion of the Basin, which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). SCAQMD has jurisdiction over an area of approximately 10,743 square miles, including all of Orange County; Los Angeles County, except for the Antelope Valley; the non-desert portion of western San Bernardino County; and the western and Coachella Valley portions of Riverside County. The Basin is a sub-region of SCAQMD's jurisdiction. Although air quality in this area has improved, the Basin requires continued diligence to meet air quality standards.

SCAQMD has adopted a series of air quality management plans (AQMPs) to meet the CAAQS and NAAQS. These plans require, among other emissions-reducing activities, control technology for existing sources, control programs for area sources and indirect sources, an SCAQMD permitting system that allows no net increase in emissions from any new or modified (i.e., previously permitted) emissions sources, and transportation control measures. The most recent publication is the 2016 AQMP, which is intended to serve as a regional blueprint for achieving the federal air quality standards and healthful air.

The 2016 AQMP represents a thorough analysis of existing and potential regulatory control options, and includes available, proven, and cost-effective strategies to pursue multiple goals in promoting reductions in GHG emissions and toxic risk, as well as efficiencies in energy use, transportation, and goods movement. The 2016 AQMP focuses on demonstrating NAAQS attainment dates for the 2008 8-hour O_3 standard, the 2012 annual $PM_{2.5}$ standard, and the 2006 24-hour $PM_{2.5}$ standard. The 2016 AQMP includes both stationary and mobile source strategies to ensure that rapidly approach attainment deadlines are met, that public health is protected to the maximum extent feasible, and that the region is not faced with burdensome sanctions if the NAAQS are not met by the established date.

SCAQMD published the *CEQA Air Quality Handbook* in November 1993[3] to help local governments analyze and mitigate project-specific air quality impacts. This handbook provides standards, methodologies, and procedures for conducting air quality analyses as part of California Environmental Quality Act (CEQA) documents prepared within SCAQMD's jurisdiction. In addition, SCAQMD has published two guidance documents: *Localized Significance Threshold Methodology for CEQA Evaluations* and *Particulate Matter (PM) 2.5 Significance Thresholds and Calculation Methodology* (SCAQMD 2006, 2008). These publications provide guidance for evaluating localized effects from mass emissions during construction. Both were used in the preparation of this analysis.

The project is also required to comply with all applicable SCAQMD Rules and Regulations pertaining to construction activities, including, but not limited to:

Rule 401– Visible Emissions. This rule prohibits the discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any 1 hour that is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart, as published by the U.S. Bureau of Mines.

Rule 402– Nuisance. This rule prohibits the discharge of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; endanger the comfort, repose, health, or safety of any such persons or the public; or cause, or have a natural tendency to cause, injury or damage to business or property. Odors are regulated under this rule.

Rule 403 – Fugitive Dust. This rule prohibits emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area that remains visible beyond the property line of the emission's source. During construction, best available control measures identified in the rule would be required to minimize fugitive dust emissions from proposed earthmoving and grading activities. These measures would include site pre-watering and re-watering as necessary to maintain sufficient soil moisture content. Additional requirements apply to construction projects on properties with 50 or more acres of disturbed surface area or any earthmoving operation with a daily earthmoving or throughput volume of 5,000 cubic yards or more three times during the most recent 365-day period. These requirements

[3] Section updates provided on the SCAQMD website: http://www.aqmd.gov/ceqa/hdbk.html

include submittal of a dust control plan, maintenance of dust control records, and designation of an SCAQMD-certified dust control supervisor.

Rule 1108 – Cutback Asphalt. This rule specifies VOC content limits for cutback asphalt.

Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines. This rule specifies requirements for stationary diesel engines, including emergency standby generators. It requires owners or operators of emergency standby generators to keep monthly logs of usage, limits maintenance and testing to 20 hours per year, and requires emission rates to not exceed 0.40 gram per brake-horsepower hour.

Rule 1113 – Architectural Coatings. This rule limits the VOC content in architectural coatings used in the SCAQMD jurisdiction. These limits are application-specific and are updated as availability of low-VOC products expands.

SCAQMD Rules and Regulations that would also be applicable to the project's operational activities include, but are not limited to:

Rule 1138 – Control of Emissions from Restaurant Operations. This rule applies to owners and operators of commercial cooking operations and requires chain-driven charbroilers used to cook meat at these operations to be equipped with a catalytic oxidizer control device to reduce PM and VOC emissions and minimize visible emissions to the atmosphere.

Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines. This rule applies to stationary compression ignition engines greater than 50 brake horsepower and sets limits on emissions and operating hours. The rule also establishes more stringent requirements for engines located on or within 100 meters from existing schools to reduce exposure to DPM for school children, who are more susceptible to diesel PM than healthy adults. The rule applies to new and existing prime and emergency engines, and new agricultural engines.

2.3.13 Southern California Association of Governments

The Southern California Association of Governments (SCAG) is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial counties. SCAG addresses regional issues related to transportation, the economy, community development, and the environment, and is the federally designated metropolitan planning organization for a majority of the region and the largest metropolitan planning organization in the nation. As required by federal and state law, SCAG develops plans pertaining to transportation, growth management, hazardous waste management, housing, and air quality. SCAG data are used in the preparation of air quality forecasts and the conformity analysis included in the AQMP.

SCAG is responsible for developing long-range transportation plans and a sustainability strategy for a vast and varied region. The centerpiece of that planning work is Connect SoCal, the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Connect SoCal is supported by a combination of transportation and land use strategies that outline how

the region can achieve California's greenhouse gas emission reduction goals and federal Clean Air Act requirements (SCAG 2020A). The RTP/SCS is focused on creating dynamic, connected built environments that support multimodal mobility, reduced reliance on single-occupancy vehicles, and reduced air pollutant emissions through the implementation of center focused placemaking, and development in priority growth areas, such as job centers, transit priority areas, and high quality transit areas (SCAG 2020A).

2.3.14 City of Los Angeles General Plan Air Quality Element

The City's general plan Air Quality Element (1992) addresses citywide goals, objectives, and policies designed to promote cleaner air and improved public health. The principal objective of the Air Quality Element of the general plan is to aid the region in attaining the state and federal ambient air quality standards while continuing economic growth and improvement in the quality of life afforded to City residents. The Air Quality Element also documents how the City will implement local programs contained in the general plan through recognition of the interrelationships between transportation and land use planning. The Air Quality Element establishes six City-wide criteria for meeting its mobility and air quality goals:

- 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;
- Minimal 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 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.

In accordance with CEQA requirements, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation. The City uses the SCAQMD's *CEQA Air Quality Handbook* and SCAQMD's supplemental online guidance/information for the environmental review of plans and development proposals within its jurisdiction.

2.4 Air Quality Impacts and Mitigation Measures

2.4.1 Methodology

Air pollutant emissions would occur from both construction and operation of the new mixed-use development at the project site. The project's construction activities would generate temporary air pollutant emissions from the use of off-road mobile equipment and combustion-powered tools at the project site as well as construction-related worker, vendor truck, and haul truck trips traveling to and from the project site. Once constructed, air pollutant emissions would result from operations of the new mixed-use development, which includes mobile- and area-source emissions. The change in air pollutant emissions generated by the project relative to baseline conditions has been estimated and compared with the applicable air quality thresholds of significance recommended by SCAQMD.

2.4.2 Short-term Construction-Generated Emissions

Construction of the project would generate emissions of ROG, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$ that could result in short-term air quality effects during the construction period. Emissions would originate from off-road equipment exhaust, employee, and haul truck vehicle exhaust (on-road vehicles), site grading and earth movement, paving activities, and the application of architectural coatings. It is anticipated that project construction would commence in the fourth quarter of 2022 and occur over an approximately 36-month period before being completed in 2025.

The project's short-term construction emissions consisting of combustion exhaust, fugitive dust (PM_{10} and $PM_{2.5}$), and fugitive off-gassing (ROG) were estimated using a combination of emission factors and methodologies from the California Emissions Estimator Model (CalEEMod), version 2016.3.2, CARB's EMission FACtors model (EMFAC2017), and the U.S. EPA's AP-42 Compilation of Air Pollutant Emission Factors. The modeling was conducted based on project-specific construction data (e.g., schedule, equipment, truck volumes) provided by the project applicant, where available. Where project-specific information was not available, reasonable assumptions based on similar projects and default model settings were used to estimate criteria air pollutant and ozone precursor emissions. Details regarding the methods and activity assumptions by source type are provided below.

- **Off-Road Equipment**—Emission factors for off-road construction equipment (e.g., excavators, pavers) were obtained from the CalEEMod (version 2016.3.2) User's Guide appendix, which provides values per unit of activity (in grams per horsepower-hour) by calendar year (CAPCOA 2017). Criteria pollutants were estimated by multiplying the CalEEMod emission factors by the equipment inventory.

- **On-Road Vehicles**—On-road vehicles (e.g., delivery trucks, haul trucks, and passenger vehicles) would be required for material deliveries to the project site, material hauling from the project site, onsite material movement, and employee commuting. Exhaust emissions from on-road vehicles were estimated using the EMFAC2017 emissions model and activity data (number of vehicles and miles traveled per day). Emission factors for haul trucks are based on aggregated-speed emission rates for EMFAC's T7 Single Vehicle category. Emission

factors for water and vendor trucks are based on aggregated-speed emission rates for EMFAC's T6 Instate Heavy vehicle category. To estimate vehicle travel within the project site, emission factors for on-site water, vendor, and haul trucks were based on the same vehicle categories but assuming a conservative travel speed of 5 mph. Emission factors for employee commute vehicles are based on a weighted average for all vehicle speeds for EMFAC's light-duty automobile/light-duty truck vehicle categories. These emission factors for employee commute vehicles generated from EMFAC2017 were also subsequently processed with CARB's EMFAC off-model adjustment factors to account for the SAFE Vehicles Rule.

To account for fugitive dust emissions from vehicle travel on unpaved surfaces within the project site, it was assumed that each vendor and haul truck would travel a distance of 0.06 mile (distance across project site) on unpaved surfaces within the site twice daily (i.e., arrival and departure), while water trucks would travel this distance approximately six times a day for fugitive dust control under SCAQMD Rule 403. Fugitive dust emissions from this travel was adjusted using the appropriate unpaved emission factors from U.S. EPA's AP-42 Compilation of Air Pollutant Emission Factors, Section 13.2.2 Unpaved Roads guidance. Fugitive dust from travel on paved roads by worker vehicles and trucks was estimated using emission factors from U.S. EPA's AP-42 Compilation of Air Pollutant Emission Factors, Section 13.2.1 Paved Roads guidance, and CARB's Miscellaneous Process Methodology 7.9, Entrained Road Travel, Paved Road Dust.

- **Demolition, Site Grading, and Earth Movement**— Fugitive dust emissions from building demolition were quantified based on demolition debris amounts estimated for the existing 81,993 sf warehouse building using the calculation methodologies from the CalEEMod User's Guide. Fugitive dust emissions from earth movement (e.g., site preparation and excavation/grading and truck loading) were quantified using emission factors from CalEEMod. Data on the total graded acreage and quantity of soil excavation were obtained from the project applicant. The modeling of the project's fugitive dust emissions also accounts for implementation of mandatory fugitive dust control measures required by SCAQMD Rule 403.

- **Paving**—Fugitive ROG emissions were calculated based the amount of square feet to be paved at the project site and the CalEEMod default emission factor of 2.62 pounds of ROG per acre paved (CAPCOA 2017).

- **Architectural Coatings**—ROG emissions from the application of architectural coatings were calculated based the total surface amount to be coated for project and the VOC content of the coatings. The amount of surface to be coated was determined using CalEEMod's default assumption that the total surface for painting for a project equals 2.7 times the floor square footage for residential and 2 times that for non-residential square footage. For the purpose of this analysis, the project's TORS units square footage is treated as residential square footage. Additionally, of the total surface area to be coated, CalEEMod assumes that 75 percent of the area would be for the interior surfaces and 25 percent would be for the exterior shell (CAPCOA 2017). The VOC content for the coatings to be used for both the project's residential (including (TORS units)) and non-residential (e.g., TORS units related ancillary facilities and ground-floor commercial) uses was assumed to be 50 grams per liter (g/L).

ROG emissions from the painting of stripes, handicap symbols, directional arrows, and car space descriptions in the parking levels of the proposed mixed-use building were also calculated based on the CalEEMod default assumption that 6 percent of a project's parking lot area would be painted. The default VOC content value of 100 g/L used by CalEEMod for parking lot coatings was used in estimating the project's emissions.

The resulting pollutant emissions estimated for the project were then assessed against SCAQMD's regional significance thresholds, which are shown in Table 2.3-2, to determine the project's impacts on regional air quality. The modeling output files are provided in Appendix A of this report.

In conducting the localized air quality analysis for the project, which focuses only on on-site emissions and their impacts on nearby sensitive receptor locations, the project's peak on-site construction emissions generated from combustion sources (e.g., off-road construction equipment and vehicle travel by water, vendor, and haul trucks within the project site) and fugitive sources (e.g., grading and demolition dust) were extracted from the total emission estimates conducted for the regional air quality analysis. These daily total on-site combustion, mobile, and fugitive dust emissions associated with the project's construction activities were evaluated against SCAQMD's localized significance thresholds (LSTs) for a 0.63-acre site, which are shown in Table 2.3-3.

2.4.3 Localized Construction-Generated DPM Emissions

The construction activities associated with the project would generate and expose nearby land uses to TAC emissions in the form of DPM as a result of the use of diesel-powered equipment. As such, a health risk assessment (HRA) was conducted to evaluate the potential human health risk impacts that may result from exposure of nearby sensitive receptors to the project's construction-related DPM emissions.

The HRA was performed using USEPA's American Meteorological Society/Environmental Protection Agency Regulator Model (AERMOD), chronic risk assessment values presented by OEHHA, as well as assumptions for model inputs from SCAQMD's modeling guidance for AERMOD (SCAQMD 2021b). The HRA takes into account OEHHA's most recent *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments* guidance and calculation methods, which was adopted by OEHHA in March 2015 (OEHHA 2015). The HRA consists of three parts: a DPM inventory, air dispersion modeling, and risk calculations. A description of each of these parts follows.

DPM Inventory

The DPM inventory includes emissions associated with the project's short-term construction activities. Consistent with OEHHA guidance, DPM emissions were assumed to be equal to emissions of exhaust PM_{10} from diesel sources. Thus, the DPM emissions inventory uses the same methodology as the mass emissions analysis previously discussed for identifying mass daily criteria pollutant emissions and is based on the diesel PM_{10} exhaust emissions generated by the project. All PM_{10} exhaust from off-road diesel equipment during construction was assumed to be

DPM. These exhaust emissions were converted to a diesel exhaust emission rate (in grams per second) and applied to the air quality dispersion modeling results to determine the DPM concentrations at the nearest sensitive receptors.

Air Dispersion Modeling

The HRA used USEPA's most recent dispersion model, AERMOD (version 19191), to model annual average concentrations at nearby receptors. Modeling inputs, including emission rate (in grams per second) and source characteristics (release height, stack diameter, plume width, etc.), were based on guidance provided by OEHHA and SCAQMD. Meteorological data for the dispersion modeling was obtained from SCAQMD for the University of Southern California (USC)/Downtown Los Angeles location, which is approximately two miles southwest of the project site. The pre-processed meteorological data from this station was collected for the years between 2012–2016, which represents a five-year data set that meets the USEPA's requirement for AERMOD applications for HRAs.

Onsite construction emissions for the project were characterized as an area source (AREAPOLY) with a release height of 5 meters (16.4 feet). Offsite construction emissions associated with truck movement near the project site were characterized as a line/area source (LINEAREA) with a release height of 3.4 meters (11.2 feet). Emissions from construction activities were modeled based on an eight-hour construction day (9 am to 4 pm) occurring on weekdays. To account for plume rise associated with mechanically-generated construction emissions sources for the AERMOD run, Initial Vertical Dimension of the area source was based on a 1.4-meter (4.59 feet) release height and for the line/area source a 3.16-meter (10.37 feet) release height. Variable emission rates were assigned to the modeled sources to limit the emissions to the eight-hour construction day. For the purposes of this modeling, a unitary emission rate of 1.0 gram per second was used for the sources in AERMOD that would allow for the model's concentration results to be factored based on the project's actual emission rates calculated from the mass diesel PM emissions generated over the course of the construction period.

The project site is located in an urbanized area surrounded by a mix of land uses, with the nearest sensitive receptors being multi-family residential uses. The nearest existing sensitive receptor is the seven-story Axis Apartments building located directly east of the project site, across South Hill Street, followed by other multi-family residential developments located to the north, northwest, and west that are slightly beyond 400 feet from the project site. The YWCA Greater Los Angeles campus building located approximately 280 feet north of the Project Site is also a sensitive receptor as the building includes residential units. These receptor locations were modeled in AERMOD as discrete receptors and, where applicable, were assigned a flagpole receptor height of 2.4 meters (approximately eight feet) at locations where residential units are located on the second floor of a building above ground-floor retail uses. Where residential units are located on the ground level, the receptors were set to the elevation so that only ground-level concentrations were analyzed. Furthermore, in addition to the existing sensitive receptors in the vicinity of the proposed project, the proposed mixed-use DTLA South Park Project (Mack Urban) will also be located directly west of the alley adjacent to the project site at 1120 S. Olive Street (at the southeast corner of W. 11th Street and S. Olive Street). Given that this new mixed-use development could be in operation by the time project construction commences, the residential

uses associated with this new mixed-use project could also be exposed to construction-related DPM emissions. As such, this future sensitive receptor, which would have residential uses located on levels 7-60 of the building and set back approximately 72 feet from the alley, was also modeled in AERMOD. Given that the residential uses on the seventh floor of this future receptor would be closest to the project site and exposed to the highest emissions from project construction than the other higher residential floors, a flagpole receptor height was assigned at this location in the modeling that accounts for the height of the closest residential uses. All other future sensitive receptors, including the developments at 1045 S. Olive Street (approximately 265 feet to the northwest of the project site) and 1105 S. Olive Street (255 feet to the northwest of the project site), would be exposed to lower emissions from project construction.

The dispersion modeling analysis also included terrain data to accurately assess impacts in three dimensions. The terrain data used for the analysis consisted of the United States Geological Survey's (USGS) National Elevation Dataset (NED) data that was downloaded in AERMOD for the project area. The urban modeling option was selected in AERMOD to allow for the effects of increased surface heating from an urban area on pollutant dispersion under stable atmospheric conditions to be incorporated in the project's model run. Additionally, under the urban modeling option all sources must be modeled with urban effects using the population of the county where the project is located. As SCAQMD provides the various county populations within its jurisdiction, the population of 9,818,605 for Los Angeles County was used in the AERMOD run. Finally, because the focus of the HRA is to evaluate cancer risks, which are based on long-term exposures, the annual average concentration of DPM at receptor locations over the entire five years of meteorological data was modeled in AERMOD for the project's approximately 36-month construction period.

A complete list of dispersion modeling and risk calculation inputs is provided in Appendix A of this report.

Risk Calculations

The health risk calculations conducted for the project incorporate OEHHA's latest guidance, which includes age-specific factors that account for increased sensitivity to carcinogens during early-in-life exposure. The approach to estimating cancer risk from long-term inhalation, with exposure to carcinogens, requires calculating a range of potential doses and multiplying by cancer potency factors in units corresponding to the inverse dose to obtain a range of cancer risks. For cancer risk, the risk for each age group is calculated using the appropriate daily breathing rates, age sensitivity factors, and exposure duration. The cancer risks calculated for individual age groups are summed to estimate the cancer risk for each receptor.

The health risk factors used in this assessment are presented in Table 2.3-1. For each receptor, the determined annual DPM concentration was multiplied by the calculated dose (inhalation pathway only) factor and by one million to obtain the cancer risk, in chances per million. Construction is anticipated to last approximately four calendar years. Thus, the construction risk assessment assumes exposure begins at third trimester, lasting for 0.25 percent (3 months) of a year, followed by a two-year exposure period occurring in the 0 – <2 age bin, and the remaining

0.72 percent of a year (approximately 9 months) is assumed to occur in the 2 - <9 age bin. Fraction of time at home is set to OEHHA recommendations.

Table 2.4-1. Key Age-specific Factors Used in Health Risk Assessment

Factor	3rd Trimester	0 – <2 Years	2 - <9 Years
Dose Inhalation			
Breathing Rates, Residential[a]	361	1,090	631
Cancer Risk			
Inhalation Cancer Potency Factor	1.1	1.1	1.1
Age Sensitivity Factors[b]	10	10	3
Exposure Duration (years)	0.25	2	0.72
Fraction of Time at Home[c]	0.85	0.85	0.72

[a] Based on Point Estimates of Residential Daily Breathing Rates, Table 5.6 in OEHHA 2015, 95th percentile for 3rd trimester and 0 – <2 bins, and 80th percentile for 2 – <9 bin based on SCAQMD guidance.
[b] Based on Table 8.3 in OEHHA 2015.
[b] Based on Table 8.4 in OEHHA 2015.

2.4.4 Long-term Operational Emissions

Operation of the project would generate emissions of ROG, NOx, CO, SOx, PM_{10}, and $PM_{2.5}$ that could result in long-term impacts on ambient air quality. The project's emissions of these air pollutants and precursors, including energy-, area-, and stationary-source emissions, during operations were quantified using the CalEEMod software. Given that the 160 hotel units would be designated as TORS units that are more residential in nature and would likely result in more energy and water use than typical hotel rooms, these units were modeled as multi-family residential units for the purpose of this analysis. Area-source emissions, which are widely distributed and composed of many small emissions sources (e.g., fireplaces, landscaping equipment, consumer products, painting operations, etc.), and energy-source emissions, which are generated from activities in buildings where natural gas is used (e.g., heating or cooking), were modeled according to the size and type of land uses proposed at the project site. Stationary-source emissions at the project site, which would be generated by the two on-site, diesel-powered emergency generators during periodic maintenance and testing operations throughout the year, were modeled based on the horsepower of the generators and the estimated hours of daily and annual operation. The annual operation hours for the project's two emergency generators were modeled at 50 hours per the requirement under SCAQMD Rule 1470, which establishes requirements for stationary diesel-fueled internal combustion engines such as emergency generators, that the operation of new stationary emergency standby diesel-fueled engines be restricted to no more than 50 hours per year for maintenance and testing. With respect to daily emissions, it was assumed that the project's on-site emergency generators would each operate for one hour on a given day for maintenance and testing purposes.

The modeling of mass mobile-source emissions during project operations was conducted using vehicle fleet emission factors generated from the EMFAC2017 model for Los Angeles County and applying the emission factors to the daily vehicle miles traveled (VMT) associated with the project's new multi-family residential, TORS, and commercial uses to estimate the mobile

emissions. The VMT data was obtained from the Transportation Assessment (TA) prepared by Fehr and Peers for the project (Fehr and Peers 2020). The mobile source emissions modeling takes into account trip reductions from internal capture resulting from co-locating different land uses on the project site and from nearby access to public transportation.

Overall, the resulting long-term operational emissions that would be generated by the project were then assessed against the applicable SCAQMD thresholds (refer to Table 2.3-2) to determine the project's impacts on regional air quality.

Aside from regional air quality impacts, the project's localized air quality impacts during operations at nearby sensitive receptor locations were analyzed by assessing the project's on-site operational emissions against SCAQMD's applicable operational LSTs. To account for mobile-source emissions associated with vehicles traveling within the parking levels of the mixed-use building by project residents and patrons of the new TORS and commercial uses, it was conservatively assumed that 5 percent of the total daily off-site mobile emissions generated during project operations would occur within the project site. The project's total on-site operational emissions were then evaluated against SCAQMD's applicable operational LSTs (refer to Table 2.3-2).

2.4.5 Operational Carbon Monoxide Hot Spots

A CO hot spot is a localized concentration of CO that is above the state or national 1-hour or 8-hour ambient air standards for the pollutant. As part of SCAQMD's 2003 AQMP, which is the most recent AQMP that addresses CO concentrations, a detailed CO hot spots analysis was conducted by SCAQMD at four heavily congested intersections in the Basin that were likely to experience the highest CO concentrations. The results of the CO hot spots analysis did not predict a violation of CO standards at any of these four intersections. As such, the potential for the project to result in localized CO impacts occurring from the addition of project-associated traffic volumes at intersections is assessed by comparing the highest daily traffic volumes that would occur among the study intersections analyzed in the project's TA against the highest traffic volumes at the busiest intersection evaluated in the 2003 AQMP. Where it is determined that the project's highest intersection traffic volumes would be lower than the traffic volumes at the four intersections modeled by SCAMQD, it can be concluded that the project would not result in any localized CO impacts.

2.4.6 Thresholds of Significance

Appendix G of the CEQA Guidelines provides a set of topics that addresses impacts with regard to air quality. The questions are as follows:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase in any criteria pollutant for which the project region is a nonattainment area with respect to the applicable federal or state ambient air quality standard;
- Expose sensitive receptors to substantial pollutant concentrations; and

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

2.4.7 Supplemental Thresholds

Regional Thresholds

The City has not developed specific air quality thresholds for air quality impacts. Instead, it relies on the SCAQMD's *CEQA Air Quality Handbook* when acting as lead agency for CEQA purposes. Appendix G, Section III, of the CEQA Guidelines states that, where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make determinations regarding air quality impacts. Given SCAQMD's regulatory role in the Basin, the significance thresholds and analysis methodologies established by SCAQMD are relied upon by the City in the context of the questions from Appendix G of the CEQA Guidelines to make determinations regarding air quality impacts. The SCAQMD significance thresholds and analysis methodologies are relied on here with respect to this analysis of the project's potential air quality impacts.

The SCAQMD has established air quality significance thresholds that are applicable to both construction and operational emissions generated by CEQA projects within its jurisdiction. These significance thresholds were derived using regional emissions modeling to determine maximum allowable mass quantities of pollutant emissions that could be generated by individual projects without adversely affecting air quality and creating public health concerns based on existing pollution levels. These regional pollutant emission thresholds are shown in Table 2.3-2.

Table 2.4-2. SCAQMD Regional Air Quality Significance Thresholds

	Mass Daily Thresholds (lbs./day)	
Pollutant	**Construction**	**Operation**
Nitrogen Oxides (NO_X)	100	55
Volatile Organic Compounds (VOC)[a]	75	55
Suspended Particulate Matter (PM_{10})	150	150
Fine Particulate Matter ($PM_{2.5}$)	55	55
Sulfur Oxides (SO_X)	150	150
Carbon Monoxide (CO	550	550
Lead (Pb)[b]	3	3

Source: SCAQMD 2019.
[a] The terms VOC and ROG are used interchangeably. SCAQMD uses VOC, and CalEEMod uses ROG.
[b] The project would result in no lead emissions sources during the construction period or operations. As such, lead emissions are not evaluated herein.

Localized Thresholds

Aside from regional air quality impacts, projects in the Basin are also required to analyze local air quality impacts. The SCAQMD has developed LSTs that represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standards, and thus would not cause or contribute

to localized air quality impacts. LSTs are developed based on the ambient concentrations of that pollutant for each of the 38 source receptor areas (SRAs) in the Basin. The localized thresholds, which are found in the mass rate look-up tables in SCAQMD's *Final Localized Significance Threshold Methodology* document, were developed for the analysis of projects that are less than or equal to five acres in size and applicable only to the following criteria pollutants: NOx, CO, PM_{10}, and $PM_{2.5}$. The analysis of localized air quality impacts focuses only on the on-site activities of a project and does not include emissions that are generated off-site, such as on-road haul or delivery truck trips (SCAQMD 2008).

The mass rate look-up tables developed by SCAQMD present LST values in the form of allowable emissions (in pounds per day) as a function of receptor distance from a project's site boundary. These LST values were developed by SCAQMD for 1-acre, 2-acre, and 5-acre sites. The LSTs established for each of the aforementioned site acreages represent the level of pollutant emissions that would not exceed the most stringent applicable federal or state ambient air quality standards. As the project site is approximately 0.63 acre in size, the applicable LSTs for a site of this size was approximated through linear regression from the known LSTs established by SCAQMD for the 1-acre, 2-acre, and 5-acre sites. The construction and operational LSTs for a 0.63-acre site in SRA 1 (Central Los Angeles), which is where the project site is located, are shown in Table 2.3-3.

Table 2.4-3. SCAQMD LSTs

Pollutant Monitored within SRA 1 Central Los Angeles	0.63-Acre Site[a] Allowable Emissions (pounds/day) as a Function of Receptor Distance (feet) from Site Boundary 82 feet (25 meters)[b]
Construction Screening Thresholds	
Nitrogen Oxides (NO_x)[c]	72.0
Carbon Monoxide (CO)	606.4
Respirable Particulate Matter (PM_{10})	4.1
Fine Particulate Matter ($PM_{2.5}$)	2.9
Operational Screening Thresholds	
Nitrogen Oxides (NO_x)[b]	72.0
Carbon Monoxide (CO)	606.4
Respirable Particulate Matter (PM_{10})	1.6
Fine Particulate Matter ($PM_{2.5}$)	1.3

Source: SCAQMD 2008.

[a] The LSTs for a 0.63- acre site in SRA 1 were estimated from the corresponding LSTs for a 1-, 2-, and 5-acre site in SRA 1 (obtained from Appendix C [Localized Significance Threshold Screening Tables] of SCAQMD's *Final Localized Significance Threshold Methodology* document), using the linear regression calculation recommended by SCAQMD. 0.63 acres is the post-dedicated lot area.

[b] While SCAQMD's mass rate look-up tables present LST values for receptor distances of 82, 164, 328, 656, and 1,640 feet from a project's site boundary, for the purpose of this analysis only the LST values at a receptor distance of 82 feet is provided since LSTs at this distance are the most conservative and best meet the distances at which the nearest off-site sensitive receptors are from the Project Site among the distances in SCAQMD's LST lookup tables. According to

SCAQMD's LST methodology, it is recommended that projects with boundaries closer than 82 feet (25 meters) from the nearest receptor use the LSTs for receptors located at 82 feet.

[c] The localized thresholds listed for NO_X in this table take into consideration the gradual conversion of NO to NO_2. The analysis of localized air quality impacts associated with NO_X emissions focuses on NO_2 levels because of their association with adverse health effects.

Health-Based Thresholds for Project-Generated Pollutants of Human Health Concern

The California Supreme Court's decision in *Sierra Club v. County of Fresno*, 6 Cal. 5th 502 (2018) (hereafter referred to as the Friant Ranch Decision), reviewed the long-term, regional air quality analysis contained in the environmental impact report (EIR) for the proposed *Community Plan Update* and *Friant Ranch Specific Plan* (Friant Ranch Project). The Friant Ranch Project is a 942-acre master-plan development in unincorporated Fresno County within the San Joaquin Valley Air Basin, an air basin currently in nonattainment under the NAAQS and CAAQS for ozone and $PM_{2.5}$. The Friant Ranch Project was determined to result in significant and unavoidable air quality impacts with respect to PM10, ROG, and NOx. Despite the disclosure of these impacts, the court found that the EIR was flawed insofar as it did not attempt to draw any connection between the significant and unavoidable exceedances of criteria pollutant thresholds and any particular human health impacts. On this basis, the court found that the EIR's air quality analysis was inadequate because it failed to provide enough detail "for the public to translate the bare [criteria pollutant emissions] numbers provided into adverse health impacts or to understand why such a translation is not possible at this time." The court's decision clarifies that when significant and unavoidable exceedances of criteria pollutant thresholds occur, environmental documents must attempt to connect a project's air quality impacts to specific health effects or explain why it is not technically feasible to perform such an analysis.

As indicated herein, the project does not require an EIR because the project would not have significant and unavoidable air quality impacts and would not result in exceedances of the established SCAQMD-derived criteria pollutant thresholds used here. Accordingly, the project's air quality impacts would be less than significant, and no analysis of human health impacts is required, per the Friant Ranch Decision. Nevertheless, because the project would result in increased emissions of criteria pollutants compared with the baseline condition, the following discussion is presented for informational purposes.

As discussed in Section 2.1, *Existing Setting*, all criteria pollutants that would be generated by the project are associated with some form of health risk (e.g., asthma, lower respiratory problems). Criteria pollutants can be classified as either regional or localized pollutants. Regional pollutants can be transported over long distances and affect ambient air quality far from the emissions source. Localized pollutants affect ambient air quality near the emissions source. Ozone is considered a regional criteria pollutant, whereas CO, NO_2, and SO_2 are localized pollutants. PM can be both a local and a regional pollutant, depending on its composition. As discussed above, the primary criteria pollutants of concern generated by the project are ozone precursors (ROG and NO_X), CO, SOx, and PM because SCAQMD has developed numerical thresholds for these pollutants.

Regional Project-Generated Criteria Pollutants (Ozone Precursors and Regional PM)

Adverse health effects induced by regional criteria pollutant emissions generated by the project (ozone precursors and PM) are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, the number and character of exposed individuals [e.g., age, gender]). For these reasons, ozone precursors (ROG and NO_X) contribute to the formation of ground-borne ozone on a regional scale. Emissions of ROG and NOx generated in one area may not equate to a specific ozone concentration in that same area. Similarly, some types of particulate pollutant may be transported over long-distances or formed through atmospheric reactions. As such, the magnitude and locations of specific health effects from exposure to increased ozone or regional PM concentrations are the product of emissions generated by numerous sources throughout a region, as opposed to a single individual project.

Models and tools have been developed to correlate regional criteria pollutant emissions to potential community health impacts. While there are models capable of quantifying ozone and secondary PM formation and associated health effects, these tools were developed to support regional planning and policy analysis and have limited sensitivity to small changes in criteria pollutant concentrations induced by individual projects. Therefore, translating project-generated criteria pollutant emissions to the locations where specific health effects could occur or determining the resultant number of additional days of nonattainment cannot be estimated with any degree of accuracy with currently available tools.

Technical limitations of existing models to correlate project-level regional emissions to specific health consequences are recognized by air quality management districts throughout the state, including the San Joaquin Valley Air Pollution Control District (SJVAPCD) and SCAQMD, both of which provided amici curiae briefs for the Friant Ranch legal proceedings that the court lent significant credence to in its ruling but could not consider in the context of its review of the Friant Ranch Project EIR.[4] In its brief, SJVAPCD (2015) acknowledges that while health risk assessments for localized air toxics, such as DPM, are commonly prepared, "it is not feasible to conduct a similar analysis for criteria air pollutants because currently available computer modeling tools are not equipped for this task." SJVAPCD further notes that emissions solely from the Friant Ranch Project (which equate to less than one-tenth of one percent of the total NOx and VOC in the Valley) is not likely to yield valid information," and that any such information should not be "accurate when applied at the local level." SCAQMD (2015) presents similar information in their brief, stating that "it takes a large amount of additional precursor emissions to cause a modeled increase in ambient ozone levels".[5]

As discussed above, air districts develop region-specific CEQA thresholds of significance in consideration of existing air quality concentrations and attainment designations under the NAAQS and CAAQS. The NAAQS and CAAQS are informed by a wide range of scientific evidence

[4] The amici curiae briefs for Friant Ranch are available at: https://www.courts.ca.gov/41312.htm

[5] For example, SCAQMD's analysis of their 2012 Air Quality Attainment Plan showed that modeled NOx and ROG reductions of 432 and 187 tons per day, respectively, only reduced ozone levels by 9 parts per billion. Analysis of SCAQMD's Rule 1315 showed that emissions of NOx and ROG of 6,620 and 89,180 pounds per day, respectively, contributed to 20 premature deaths per year and 89,947 school absence (SCAQMD 2015).

that demonstrates there are known safe concentrations of criteria pollutants. While recognizing that air quality is generally a cumulative problem, air districts typically consider projects that generate criteria pollutant and ozone precursor emissions below these thresholds to be minor in nature and would not adversely affect air quality such that the NAAQS or CAAQS would be exceeded. The project's incremental contribution to cumulative photochemical reactions that lead to the formation of tropospheric ozone and secondary PM cannot be traced to specific health outcomes on a regional scale, and therefore, a quantitative correlation of project-generated regional criteria pollutant emissions to specific human health impacts is not included in this analysis.

Localized Project-Generated Criteria Pollutants (NO_2, CO, and PM)

Localized pollutants generated by a project are deposited and potentially affect population near the emissions source. Because these pollutants dissipate with distance, emissions from individual projects can result in direct and material health impacts to adjacent sensitive receptors. Models and thresholds are readily available to quantify these potential health effects and evaluate their significance. As discussed above, the SCAQMD has developed LSTs for NOx, CO, PM_{10}, and $PM_{2.5}$ that represent the maximum emissions from a project's on-site activities that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standards, and thus would not cause or contribute to localized air quality impacts related to public health.[6] The applicable LSTs for assessing the potential local air quality impacts that could be generated by the project's on-site emissions during construction and operations are presented in Table 2.3-3.

Carbon Monoxide Hot-Spots

Heavy traffic congestion can contribute to high levels of CO. Individuals exposed to these CO "hot-spots" may have a greater likelihood of developing adverse health effects (as described in Section 2.1., *Existing Setting*). The potential for the project to result in localized CO impacts at intersections resulting from addition of its traffic volumes is assessed against the health-based CAAQS and NAAQS for CO. SCAQMD states that a project impact is significant if it causes or contributes to an exceedance of the following attainment standards:

- 1-hour standards of 20 ppm (state) and 35 ppm (federal), and
- 8-hour standards of 9.0 ppm (state) and 9 ppm (federal).

Diesel Particulate Matter

Based on applicable TAC criteria set forth by SCAQMD, the project would have a significant TAC impact if the project results in the exposure of sensitive receptors to carcinogenic or toxic air contaminants that exceed the maximum incremental cancer risk threshold of 10 in 1 million or increases the non-cancer health risk such that the ratio of the chronic or acute exposure to the reference exposure level ("hazard index") exceeds 1.0 (SCAQMD 2019).

[6] As noted previously, the SCAQMD's LSTs apply only to the on-site activities associated with a project and does not include emissions that are generated off-site, such as on-road haul or delivery truck trips.

Cumulative Impacts

Potential cumulative air quality impacts would result when other projects' pollutant emissions combine to degrade air quality conditions below acceptable levels. This could occur on a local level (e.g., increased vehicle emissions at congested intersections or concurrent construction activities at sensitive receptor locations) or a regional level (e.g., potential O_3 impacts from multiple past, present, and reasonably foreseeable projects within the Basin). Given that both localized and regional pollution is regulated at the air basin level, the Basin is the resource study area for the purposes of air quality.

The Basin experiences chronic exceedances of the NAAQS and CAAQS, and is currently in nonattainment status for O_3 (federal and state standards), PM_{10} (state standards only), and $PM_{2.5}$ (federal and state standards). Consequently, cumulative development in the Basin as a whole could violate an air quality standard or contribute to an existing or projected air quality violation. Based on SCAQMD's cumulative air quality impact methodology, SCAQMD recommends that if an individual project results in air emissions of criteria pollutants that exceed the SCAQMD's recommended daily thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants for which the project region is in non-attainment under an applicable federal or state ambient air quality standard. Conversely, if a project's emissions do not exceed the recommended daily thresholds for project-specific impacts, its impacts would not be cumulatively considerable and would not contribute to nonattainment of applicable air quality standards in the Basin.

2.4.8 Project Design Features

The following project design feature (PDF) would be implemented as part of the project:

PDF-AQ-1: The following measure will be employed by the project to minimize construction-related emissions:

- The project shall obtain concrete for use during the concrete-pour phase of construction from local concrete suppliers located within a 7-mile radius of the project site.

2.4.9 Project Impacts

Impact AQ-1: Would the Project conflict with or obstruct implementation of the applicable air quality plan?

2016 AQMP

The 2016 AQMP was adopted by the SCAQMD as a program to lead the Basin into compliance with criteria pollutant standards and other federal requirements for which the Basin is not in compliance. The AQMP relies on emissions forecasts based on the demographic and economic growth projections provided by the SCAG 2016 RTP/SCS (SCAQMD 2017). SCAG is charged by California law to prepare and approve "the portions of each AQMP relating to demographic projections and integrated regional land use, housing, employment, and transportation

programs, measures and strategies" (SCAQMD 2017). A project is considered to be consistent with the AQMP and not obstruct its implementation if, in part, it is consistent with the demographic and economic growth projections used in the formulation of the AQMP. The SCAQMD recommends that, when determining whether a project is consistent with the current AQMP, a lead agency must assess: (1) whether the project would directly obstruct implementation of the plan through an increase in the frequency or severity of existing air quality violations, or cause or contribute to, new violations, or delay timely attainment of air quality standards, and (2) whether it is consistent with the demographic and economic assumptions (typically land use related, such as resultant employment or residential units) upon which the plan is based (SCAQMD 1993).

Criterion No. 1

As discussed below under Impact AQ-2, the project would not obstruct implementation of the AQMP because emissions resulting from its construction and operation would not exceed SCAQMD's regional mass emissions thresholds and LSTs (refer to Tables 2.3-6, 2.3-7, 2.3-8, and 2.3-9). The project's emissions would therefore not increase concentrations of criteria pollutants or their precursors in a manner that could obstruct SCAQMD's efforts to achieve timely attainment of ambient air quality standards for any criteria pollutant for which it is currently not in attainment, or jeopardize the current attainment status of the Basin for other criteria pollutants.

Criterion No. 2

The project is also consistent with the AQMP in that the project has incorporated control strategies set forth in the AQMP for achieving Basin-wide emission reduction goals and the project is consistent with the demographic and economic assumptions upon which the plan is based. The following sections provide a discussion of the project's incorporation of emission control measures and the project's consistency with demographic and economic assumptions used in development of the AQMP.

Emission Control Measures

During the construction period, the project would require contractors to adhere to CARB's on-road vehicle and off-road equipment requirements, which would limit the level of construction emissions caused by the project. Project design features that limit the level of construction emissions are identified above in PDF-AQ-1. In addition, the project would be required pursuant to state law to use contractors that are in compliance with the CARB Air Toxic Control Measure that limits heavy duty diesel motor vehicle idling to no more than five minutes at any given location.[7] The project contractor(s) would also be required by state regulations to comply with the fleet on-road heavy duty vehicle emissions standards consistent with Measure MOB-08[8] from

[7] The Air Toxic Control Measure (13 CCR Section 2485) specifies measures to reduce public exposure to diesel particulate matter and other air contaminants by establishing idling restrictions, emission standards, and other requirements for heavy-duty diesel engines and alternative idle-reduction technologies to limit the idling of diesel-fueled commercial motor vehicles.

[8] MOB-08: Accelerated Retirement of Older On-Road Heavy-Duty Vehicles [NOx, PM]

the 2016 AQMP (SCAQMD 2017:4-25). These control strategies are intended to reduce emissions from on-road and off-road heavy-duty vehicles and equipment, and are implemented by accelerating the replacement of older engines that produce higher pollutant emissions with newer engines that produce lower pollutant. During the construction period, the project would require contractors to adhere to CARB's on-road vehicle and off-road equipment requirements, which would limit the level of construction emissions caused by the project. The project would also be required to comply with SCAQMD Rule 403 (Fugitive Dust) for controlling dust emissions. The project would water exposed (unpaved) areas three times per day, secure loads by trimming and watering or covering to prevent the spilling or blowing of the earth material, construction personnel shall clean all trucks and loads at the export site to prevent the blowing of dirt and spilling of loose earth loads, and signage would be posted at a readily visible location that identifies the construction manager and a telephone number for any inquiries or complaints from residents regarding construction activities and that complaints would be addressed within 24 hours.[9] Additionally, implementation of PDF-AQ-1 would limit the level of construction emissions generated by concrete trucks used during concrete pouring activities. Compliance with these measures and requirements is consistent with the AQMP requirements for control strategies intended to reduce emissions from construction equipment and activities.

The AQMP includes transportation control measures that are intended to reduce regional mobile source emissions. Although much of the planned improvements in air quality identified in the AQMP are implemented at scales greater than at the project level (i.e., vehicle emissions standards), the project's location, design, and land use would support a reduction in vehicle trips by increasing residential density in an urbanized area near public transit. For vehicle trips to and from the project site, the project would provide 131 Electric Vehicle Ready Parking Spaces including 44 Electric Vehicle Charging Stations These project elements would reduce emission associated with vehicle use.

The project would be consistent with the existing zoning of the site, which is C2-4D-O (commercial, Height District 4 with development limitation, oil drilling supplemental use district) and the General Plan designation of Regional Center Commercial. As no zone change or General Plan amendment would be required for the project, the project is consistent with land use assumptions used in development of the AQMP.

The project proposes increased density on an urban infill site by locating residential, TORS with TORS units, and commercial uses in an identified Transit Priority Area (TPA) that is in close proximity to multiple bus stops with high frequency transit service, including buses operated by Metro, LADOT (DASH and Commuter Express), and other municipal transit agencies. The project site is also just over ¼-mile from the existing Metro A (Blue) Line and Metro E (Expo) Line and is adjacent to the planned Los Angeles Streetcar route, which would operate on 11th Street.

The project would also provide up to 347 bicycle parking spaces (up to 56 short-term and 291 long-term) pursuant to the LAMC, which would encourage non-motorized transportation trips. Furthermore, as a mixed-use development that is located within walking distance of a variety of land uses in the area (including residential, office, commercial, industrial, school, and service

[9] SCAQMD. 2005. Rule 403, Fugitive Dust.

uses), and multiple transit options, the project would also encourage pedestrian travel and reduce vehicle trips and related emissions. Thus, because the project's location, design, and land use would reduce vehicle trips, VMT, and associated emissions, the project would be consistent with the mobile emission reduction goals of the AQMP.

Demographic and Economic Projections

Long-term operation of the project would involve the employment of an estimated 159 workers for the new TORS and commercial uses at the project site; these workers are expected to be drawn from the regional labor pool and result in, at most, only minimal population growth with respect to SCAG employment projections.[10] Thus, employment associated with project operation would not conflict with the long-term employment projections used in the preparation of the AQMP due to the small number of employees that would be required for project operation. The project would generate short-term construction jobs, but these workers are expected to be drawn from a regional pool of construction workers who travel among construction sites as individual projects are completed. Moreover, these jobs would be relatively small in number and temporary in nature. Therefore, the project's construction jobs would not conflict with the long-term employment projections upon which the AQMP is based because such jobs would be relatively small in number and primarily drawn from the existing regional employment pool.

The project is anticipated to be operational in 2026. The project-related resident population growth is estimated to be approximately 900 residents. SCAG's 2016-2040 RTP/SCS estimated population in the City of Los Angeles would increase from 4,063,757 persons in 2020 to 4,609,400 persons in 2040, an increase of 545,643. Based on the project's occupancy year of 2026, the City of Los Angeles is anticipated to have a population of approximately 4,227,450 persons, an increase of 163,693 persons from 2020 and the project's 900 residents would represent less than 1 percent of the population growth. Furthermore, SCAG's most recent plan, the 2020-2045 RTP/SCS, estimated population in the City of Los Angeles would increase from 4,049,317 persons in 2020 to 4,609,400 persons in 2040, an increase of 545,643 (SCAG 2020b). Based on the project's occupancy year of 2026, the City of Los Angeles is anticipated to have a population of approximately 4,222,593 persons, an increase of 173,276 persons from 2020 and the project's 900 residents would represent less than 1 percent of the population growth.

The project's estimated 900 residents would be within and would comprise less than 1 percent of SCAG's estimated 2026 population growth. The project's contribution to population growth would be consistent with forecasts from the 2016 RTP/SCS for which the AQMP is based on, as well as the 2020-2045 RTP/SCS which is the most recent version of SCAG's forecasts. Furthermore, the project's growth is consistent with the 2020-2045 RTP/SCS goal of encouraging the "development of diverse housing types in areas that are supported by multiple transportation options". The 2020-2045 RTP/SCS also seeks to implement "land use and growth strategies recognize local input, promote sustainable transportation options, and support equitable and adaptable communities". The project's proximity to public transit allows the project's projected growth to be accommodated by existing and future transit options. Additionally, the project is

[10] In the growth projections provided by the SCAG 2016 RTP/SCS, which the 2016 AQMP relies on for its emissions forecast, SCAG projects employment in Los Angeles County alone would rise from 4.2 million in 2012 to 5.2 million in 2040 (SCAG 2016).

located in an urban infill location that is within walking distance to a variety of land uses that include office, commercial, school, and business service uses. As such, the project's location and land use would reduce reliance on automobiles. The population and employment growth resulting from the project would be consistent with SCAG's regional forecast projections and, in turn, consistent with the growth projections accounted for in SCAQMD's AQMP. Therefore, the project would not conflict with, or obstruct implementation of, the AQMP. This impact would be less than significant.

City's General Plan Air Quality Element

In addition to the project's consistency with the 2016 AQMP, the project's consistency with the applicable goals, objectives, and policies of the City's General Plan Air Quality Element is also evaluated and shown in Table 2.3-4 below.

Table 2.4-4. Consistency of Project with Applicable Goals, Policies, and Objectives of the City's General Plan Air Quality Element

Goal/Objective/Policy	Project Consistency Assessment
Goal 1: Good air quality and mobility in an environment of continued population growth and healthy economic structure.	**Consistent.** The project would be consistent with SCAG RTP/SCS goals and objectives under SB 375 to implement "smart growth." The project would provide residential uses and employment opportunities in proximity to job centers in Los Angeles where people can live and work and have access to convenient modes of transportation that provides options for reducing reliance on automobiles and minimizing associated air pollutant emissions. The project would meet the applicable requirements of the California Green Building Standards Code and the City of Los Angeles Green Building Code. The project would also reduce VMT as a result of its urban infill location in a TPA that is near public transportation, including multiple bus stops with high frequency transit service, such as those operated by Metro, LADOT (DASH and Commuter Express), and other municipal transit agencies, as well as the Metro A (Blue) Line and Metro E (Expo) Line and the planned Los Angeles Streetcar. The project would add new infill residential units, with convenient access to public transit, which would allow people to live near work and recreational amenities. As a result, the project would provide people with convenient mobility options and a wide range of economic/employment opportunities.

Goal/Objective/Policy	Project Consistency Assessment
Objective 1.1: It is the objective of the City of Los Angeles to reduce air pollutants consistent with the Regional Air Quality Management Plan, increase traffic mobility, and sustain economic growth citywide.	**Consistent.** As reflected above, the project would be consistent with the SCAG growth projections that are used in preparing the AQMP. The project would occupy a location that is highly accessible by regional and local bus and rail lines. As such, the project would be supportive of the Transportation Control Measures in the AQMP related to reducing vehicle trips for employees, visitors, and residents. The project would provide infill residential and commercial uses, which would allow people to live near work and recreational amenities.
Objective 1.3: It is the objective of the City of Los Angeles to reduce particulate air pollutants emanating from unpaved areas, parking lots, and construction sites.	**Consistent.** The project would incorporate measures that would reduce particulate air pollutants from unpaved areas, parking lots, and construction sites. The project would implement required control measures for construction-related fugitive dust pursuant to SCAQMD Rule 403. The project would also comply with the applicable provisions of the CARB Air Toxics Control Measure regarding idling limitations for diesel trucks reducing exhaust DPM emissions. The project contractor(s) would also be required by state regulations to comply with the fleet on-road heavy duty vehicle emissions standards consistent with Measure MOB-08 from the AQMP. These control strategies are intended to reduce emissions from on-road and off-road heavy-duty vehicles and equipment, and are implemented by accelerating the replacement of older engines that produce higher pollutant emissions with newer engines that produce lower pollutant emissions.
Policy 1.3.1: Minimize particulate emissions from construction sites.	**Consistent.** The project would incorporate measures that would reduce particulate air pollutants from construction activity as described above under Objective 1.3.
Policy 1.3.2: Minimize particulate emissions from unpaved roads and parking lots associated with vehicular traffic.	**Consistent.** The project would implement required control measures for construction-related fugitive dust pursuant to SCAQMD Rule 403, which would minimize particulate emissions from unpaved roads and parking lots associated with construction-related vehicular traffic. The project would include unpaved areas after construction.
Goal 2: Less reliance on single-occupant vehicles with fewer commute and non-work trips.	**Consistent.** The project's land use characteristics would reduce trips and VMT due to its urban infill location in a TPA that includes nearby housing, employment, office, commercial, and service uses with nearby access to multiple nearby public transportation options.
Objective 2.1: It is the objective of the City of Los Angeles to reduce work trips as a step towards attaining trip reduction objectives necessary to achieve regional air quality goals.	**Consistent.** The project is near bus lines operated by Metro, LADOT (DASH and Commuter Express), and other municipal transit agencies, as well as the Metro A (Blue) Line and Metro E (Expo) Line and the planned Los Angeles Streetcar. The project would locate infill residential and commercial land uses in an area with access to multiple other destinations, including job centers and other commercial uses. These project

Goal/Objective/Policy	Project Consistency Assessment
	characteristics would reduce trips and encourage residents to utilize alternative modes of transportation.
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 and/or VMT as an employer and encourage the private sector to do the same to reduce work trips and traffic congestion.	**Consistent.** The project would be near public multiple transportation options, place housing near jobs and transit, and provide bicycle parking and pedestrian infrastructure to incentivize increased biking and walking. The project would encourage pedestrian travel by incorporating new residential and commercial uses in its mixed-use development and locating this development on a site located within walking distance of businesses in the area, as well as within close proximity to multiple transit options. Furthermore, the project would include pedestrian-friendly landscaping and design, new perimeter landscaping streetscape improvements, and street level commercial uses that would enliven the pedestrian experience. These features would reduce work trips and encourage employees to utilize alternative modes of transportation including public transportation, walking, and bicycling.
Objective 2.2: It is the objective of the City of Los Angeles to increase vehicle occupancy for non-work trips by creating disincentives for single passenger vehicles, and incentives for high occupancy vehicles.	**Consistent.** The project's location would encourage non-automotive transportation to and from the project site. The project would be located within proximity of existing public transportation and would provide on-site bicycle parking for building residents, employees, and visitors.
Policy 2.2.1: Discourage single-occupant vehicle use through a variety of measures such as market incentive strategies, mode-shift incentives, trip reduction plans and ridesharing subsidies.	**Consistent.** The project would provide parking spaces in accordance with LAMC requirements, which would encourage non-automotive travel. The project's location would encourage non-automotive transportation to and from the project site. The project would be located within proximity of existing public transportation and would provide on-site bicycle parking for building residents, employees, and visitors. The project would also incentivize carpooling through the allocation of designated parking for ride sharing vehicles.
Policy 2.2.2: Encourage multi-occupant vehicle travel and discourage single-occupant vehicle travel by instituting parking management practices.	**Consistent.** The project would include bicycle parking spaces in accordance with LAMC requirements, which would encourage non-automotive travel. The project's location would encourage non-automotive transportation to and from the project site. The project would be located within proximity of existing public transportation and would provide on-site bicycle parking for building residents, employees, and visitors. Through LAMC authorized vehicle parking reductions pursuant to a Conditional Use Permit for the TORS guest rooms and the provision of bicycle parking spaces, the project would also provide less vehicle parking than the LAMC would otherwise require, thereby discouraging single-occupant vehicle travel.
Goal 4: Minimal impact of existing land use patterns and future land use development on air quality by addressing the relationship between land use,	**Consistent.** The project would locate a mixed-use development in a TPA within walking distance of existing and planned transit options. The project would also provide long-term and short-term bicycle parking which

Goal/Objective/Policy	Project Consistency Assessment
transportation, and air quality.	would help people have more opportunities to bicycle, walk and pursue other active alternatives to driving. The project's location in an urban infill area would provide residents and visitors with shopping and dining options that are easily accessible on foot or by bicycle. The project's design and location would help to improve air quality and the well-being of people as they would have greater opportunities for pedestrian and bicycling activity and to reduce their reliance on automobiles.
Policy 4.2.2: Improve accessibility for the City's residents to places of employment, shopping centers and other establishments.	**Consistent.** The project would provide a new mixed-use development that would include residential, TORS, and commercial (including restaurant) land uses in an infill location within proximity to public transportation. The project is located an urban area surrounded by commercial, residential, restaurant, office, and service uses.
Policy 4.2.3: Ensure that new development is compatible with pedestrians, bicycles, transit, and alternative fuel vehicles.	**Consistent.** The project would be located near multiple public transportation options, place housing near jobs and transit, and provide bicycle parking and pedestrian infrastructure to incentivize increased biking and walking. The project includes bicycle parking spaces for the residential and commercial uses of the project in accordance with LAMC requirements. The project would encourage pedestrian travel by incorporating new residential and commercial uses in its mixed-use development and locating this development on a site located within walking distance of businesses in the area, as well as within close proximity to multiple transit options. Furthermore, the project would include pedestrian-friendly landscaping and design, new perimeter landscaping and streetscape improvements, and street level commercial uses that would enliven the pedestrian experience. These features would reduce work trips and encourage employees to utilize alternative modes of transportation including public transportation, walking, and bicycling. Additionally, the project would provide 131 Electric Vehicle Ready Parking Spaces including 44 Electric Vehicle Charging Stations at the project site.
Policy 4.2.5: Emphasize trip reduction, alternative transit and congestion management measures for discretionary projects.	**Consistent.** The project's mixed-use nature and its location near multiple public transportation options along with the provision of bicycle parking spaces would help reduce vehicular trips and encourage use of alternative transportation.
Goal 5: 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 methods such as site orientation and tree planting.	**Consistent.** The project would be required to comply with California Title 24 Building Standards Code and CALGreen Code. Energy saving and sustainable design would be incorporated throughout the project. The project would emphasize energy conservation, which would be achieved through the use of energy efficient Heating Ventilation and Air Conditioning (HVAC) and lighting systems. In addition, the project would provide

Goal/Objective/Policy	Project Consistency Assessment
	131 Electric Vehicle Ready Parking Spaces including 44 Electric Vehicle Charging Stations
Objective 5.1: It is the objective of the City of Los Angeles to increase energy efficiency of City facilities and private developments.	**Consistent.** The project would be required to comply with California Title 24 Building Standards Code, the CALGreen Code and the LAMC. Energy saving and sustainable design would be incorporated throughout the project. The project would emphasize energy conservation, which would be achieved through the use of energy efficient HVAC and lighting systems. The project would provide 131 Electric Vehicle Ready Parking Spaces, including 44 Electric Vehicle Charging Stations, and would designate 15% of the building's roof area as a solar use zone.
Policy 5.1.2: Effect a reduction in energy consumption and shift to non-polluting sources of energy in its buildings and operations.	**Consistent.** As noted previously, the project would incorporate energy saving and sustainable design throughout the project in accordance with the Title 24 Building Standards Code and CALGreen Code. The project would provide 131 Electric Vehicle Ready Parking Spaces including 44 Electric Vehicle Charging Stations at the project site.
Policy 5.1.4: Reduce energy consumption and associated air emissions by encouraging waste reduction and recycling.	**Consistent.** The project would implement a construction waste management plan to divert all mixed construction and demolition debris to City certified construction and demolition waste processors, consistent with the Los Angeles City Council approved Council File 09-3029. During operations, the project would be served by a solid waste collection and recycling service under the City's "recycLA" program, which offers recycling and organic waste recycling to businesses and large multi-family customers.
Policy 5.3.1: Support the development and use of equipment powered by electric or low-emitting fuels.	**Consistent.** As noted previously, the project would incorporate energy saving and sustainable design throughout the project in accordance with the Title 24 Building Standards Code and CALGreen Code. The project would provide 131 Electric Vehicle Ready Parking Spaces including 44 Electric Vehicle Charging Stations at the project site.

As discussed in Table 2.3-4, the construction and operation of the project would not conflict with or be inconsistent with applicable air quality policies of the General Plan. Thus, implementation of the project would result in a less-than-significant impact.

Impact AQ-2: Would the Project result in a cumulatively considerable net increase in any criteria pollutant for which the Project region is a nonattainment area with respect to the applicable federal or state ambient air quality standard?

Short-term Construction Emissions

Construction associated with the project would generate criteria pollutant emissions from the following activities: demolition; site preparation; grading and excavation; construction workers traveling to and from project site; delivering construction supplies to, and hauling debris from, the project site; fuel combustion by on-site construction equipment; and building construction, the application of architectural coatings, and paving activities. These construction activities have the potential to temporarily create emissions of dust, fumes, equipment exhaust, and other air contaminants. The amount of emissions generated on a daily basis would vary, depending on the intensity and types of construction activities occurring simultaneously. To provide the most conservative analysis, maximum daily emissions estimates, which are used to assess project impacts, are based on the day with the greatest intensity of construction activities.

For purposes of this air quality analysis, construction of the project is anticipated to commence in November 2022 and continue over an approximately 36-month period before ending in November 2025. Table 2.3-5 presents the construction phases and estimated durations assumed for purposes of this analysis. Actual construction timing may vary depending on market conditions at the time of construction.

Table 2.4-5. Anticipated Project Construction Schedule

Phases	Start (month/date/year)	Finish (month/date/year)	Duration (work days)
Demolition	11/21/2022	1/24/2023	47
Site Preparation	3/30/2023	4/17/2023	13
Grading/Excavation	4/18/2023	6/1/2023	33
Building Foundation Concrete Pour	6/2/2023	6/2/2023	1
Building Construction	6/5/2023	11/10/2025	636
Asphalt Paving	7/30/2025	7/30/2025	1
Architectural Coatings	8/1/2024	11/10/2025	333

Construction would require demolition of the existing 2-story warehouse building at the project site followed by removal of the demolition debris. The removal of this debris is estimated to require approximately 30 haul truck trips per day during the demolition phase. Additionally, during the site preparation phase it is estimated that up to 5 haul truck trips per day would occur to remove materials from the project site. During the grading phase, an estimated 58,000 cubic yards of material would require export from the project site, requiring approximately 126 haul truck round trips per day. Aside from haul truck trips, daily vendor/delivery truck trips would also occur during each of the construction phases for the project. In particular, a one-day continuous concrete pour phase for the building foundation would require approximately 576 concrete truck round trips for

that day. All of the aforementioned truck trips for project construction activities would be round trips.

As discussed previously, the project would implement PDF-AQ-1 during construction to minimize construction-related emissions. Measures under PDF-AQ-1 that would reduce pollutant emissions include watering exposed ground, cleaning trucks, and covering/watering haul truck loads. The modeled peak daily emissions of criteria air pollutants and ozone precursors associated with construction of the project with PDF-AQ-1 are presented in Tables 2.3-6. As shown therein, the maximum level of daily construction emissions generated by the project with implementation of PDF-AQ-1 would not exceed SCAQMD's daily significance thresholds for any criteria pollutants during any of the construction phases.

Table 2.4-6. Regional Criteria Pollutant Construction Emissions With PDF-AQ-1

	Total Regional Pollutant Emissions (pounds per day)					
Construction Phase	**ROG**	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
2022						
Demolition	1	21	10	< 1	3	1
2023						
Demolition	1	16	9	<1	3	1
Site Preparation	<1	5	5	<1	1	<1
Grading	1	49	14	< 1	12	4
Building Foundation Concrete Pour	5	72	36	<1	12	4
Building Construction	3	16	24	< 1	8	2
2024						
Building Construction + Architectural Coatings	12	14	25	< 1	9	2
2025						
Building Construction + Architectural Coatings + Asphalt Paving [a]	11	10	21	< 1	9	2
Maximum Daily Regional Emissions During Project Construction	**12**	**72**	**36**	**< 1**	**12**	**4**
Regional Significance Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Modeling output provided in Appendix A.
Note: Totals may not add exactly due to rounding.
[a] Daily emissions for 2024 assume emissions from the Building Construction and Architectural Coatings phases would overlap. Daily emissions for 2025 assume that the Building Construction, Architectural Coatings, and Asphalt Paving phases would overlap.

Long-term Operational Emissions

Implementation of the project would result in long-term regional emissions of criteria air pollutants and ozone precursors associated with energy sources (natural gas consumption) area sources (landscaping activities, re-applications of architectural coatings, and use of consumer

products), and mobile sources. According to the Transportation Assessment prepared for the project, development of the project would result in a total net increase of 2,001 daily vehicle trips over existing baseline conditions (Fehr & Peers 2020). As specified in PDF-GHG-1, indoor fireplaces would be installed in no more than 50 percent of the residential units.

Table 2.3-7 presents the daily operational emissions generated by the project. The project site is currently unoccupied, and the operational emissions presented for the project does not take any credit for the operational emissions generated by the existing uses at the project site that would be displaced by the project. As shown, the project would result in long-term regional emissions of criteria air pollutants and ozone precursors that would be below SCAQMD's applicable thresholds.

Table 2.4-7. Proposed Project Criteria Pollutant Operational Emissions

	Pollutant Emissions (pounds per day)					
Source	**ROG**	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Project						
Area Sources	12	6	42	<1	<1	<1
Energy Sources	<1	1	<1	<1	<1	<1
Mobile Sources	4	6	30	<1	9	2
Stationary Sources [a]	4	33	2	<1	<1	<1
Total Operational Emissions	**21**	**46**	**74**	**<1**	**10**	**3**
Regional Significance Thresholds	*55*	*55*	*550*	*150*	*150*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod modeling output provided in Appendix A.
Note: Totals may not add exactly due to rounding.
[a] Stationary sources would be limited to two on-site, diesel-powered emergency generators. Although emissions were modeled, the generators would be reserved for emergencies and would not be used on a regular basis.

As discussed previously, SCAQMD's cumulative air quality impact methodology indicates that if an individual project results in air emissions of criteria pollutants that exceed the SCAQMD's recommended daily thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants for which the project region is in nonattainment under an applicable federal or state ambient air quality standard. Because the project's construction and operational pollutant emissions (refer to Table 2.3-7) would not exceed the applicable SCAQMD's regional significance thresholds, the project's emissions would not be cumulatively considerable.

Additionally, recognizing that SCAQMD's regional significance thresholds were established to achieve attainment of the NAAQS and CAAQS, which in turn define the maximum amount of an air pollutant that can be present in ambient air without harming public health, the project's contribution of pollutant emissions is not expected to result in measurable human health impacts on a regional scale.

Impact AQ-3: Would the Project expose sensitive receptors to substantial pollutant concentrations?

The term *sensitive receptors* refers to uses associated with people who are considered to be more sensitive than others to air pollutants. The reasons for greater than average sensitivity include pre-existing health problems, proximity to emissions sources, or duration of exposure to air pollutants. Schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because children, elderly people, and the infirmed are more susceptible to respiratory distress and other air quality-related health problems on average than the general public. Residential areas are considered sensitive to poor air quality because people usually stay home for extended periods of time, with associated greater exposure to ambient air quality. Recreational uses are also considered sensitive due to the greater exposure to ambient air quality conditions because vigorous exercise associated with recreation places a high demand on the human respiratory system.

Localized Pollutant Emissions

Construction

To assess the potential localized air quality impacts resulting from the project on nearby sensitive receptors during construction, the daily on-site construction emissions generated at the project site were evaluated against SCAQMD's applicable construction LSTs for a 0.63-acre site. The nearest sensitive receptor to the project site is the existing seven-story Axis Apartments located on South Hill Street directly east of the project site and the future mixed-use DTLA South Park Project that will be located directly west of the alley adjacent to the project site at the southeast corner of W. 11th Street and S. Olive Street. Other sensitive receptors in the project area include multi-family residential developments, as identified in Section 1.2.

Because the mass rate look-up tables provided by SCAQMD provide only LSTs at receptor distances of 82, 164, 328, 656, and 1,640 feet, the LSTs for a receptor distance of 82 feet were used to evaluate the potential localized air quality impacts associated with the project's peak-day construction emissions.[11] This distance most closely corresponds to the distance from the project site to nearby sensitive receptors in the SCAQMD LST lookup tables.

As discussed previously, the project would implement PDF-AQ-1 during construction to minimize construction-related emissions. The localized on-site emissions that are estimated to occur during peak construction days for each year of the project's construction schedule with PDF-AQ-1 are presented in Tables 2.3-8. As shown in Table 2.3-8, daily emissions generated on-site by construction of the project would not exceed any of the applicable SCAQMD LSTs for a 0.63-acre site in SRA 1 over the course of the entire construction schedule.

Table 2.4-8. Localized Criteria Pollutant Construction Emissions With PDF-AQ-1

Construction Year	Estimated Maximum Daily On-site Emissions (pounds per day)[b]

[11] According to SCAQMD's LST methodology, it is recommended that projects with boundaries closer than 82 feet (25 meters) from the nearest receptor use the LSTs for receptors located at 82 feet.

	NO_X	CO	PM_{10}	$PM_{2.5}$
2022	7	7	1	<1
2023	37	33	3	2
2024	10	9	< 1	< 1
2025	3	5	< 1	< 1
Applicable LSTs [a]	72.0	606.4	4.1	2.9
Threshold Exceeded?	**No**	**No**	**No**	**No**

Source: CalEEMod modeling output provided in Appendix A.
[a] The LSTs for a 0.63- acre site in SRA 1 were estimated from the corresponding LSTs for a 1-, 2-, and 5-acre site in SRA 1 (obtained from Appendix C [Localized Significance Threshold Screening Tables] of SCAQMD's *Final Localized Significance Threshold Methodology* document), using the linear regression calculation recommended by SCAQMD. 0.63 acres is the post-dedicated lot area.

Operations

Similar to the analysis of construction emissions, the daily amount of localized pollutant emissions generated on-site by the project during operations was also assessed for its potential localized air quality impacts on nearby sensitive receptors. The operational emissions that would result from the project were assessed against SCAQMD's applicable operational LSTs for a 0.63-acre site, as explained above. Table 2.3-9 presents the on-site operational emissions that would result from the project. As shown, the project's operations-related emissions generated on-site would not exceed SCAQMD's applicable operational LSTs.

Table 2.4-9. Localized Criteria Pollutant Operational Emissions

	Estimated Maximum Daily On-site Emissions (pounds per day)[a]			
Emissions Source	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**
Area	5.8	41.8	0.6	0.6
Energy	1.3	0.7	0.1	0.1
Mobile [a]	0.3	1.5	0.5	0.1
Stationary [b]	32.7	1.9	0.2	0.2
Total Emissions	**40.1**	**45.8**	**1.4**	**1.1**
Applicable LSTs [c]	72.0	606.4	1.6	1.3
Threshold Exceeded?	**No**	**No**	**No**	**No**

Source: CalEEMod modeling output provided in Appendix A.
Note: Totals may not add exactly due to rounding.
[a] Localized operational emissions estimates assume all of the Area Sources and Energy Sources of emissions occur on-site and 5 percent of emissions from Mobile Sources occur on-site.
[b] Stationary sources would be limited to two on-site, diesel-powered emergency generators. Although emissions were modeled, the generators would be reserved for emergencies and would not be used on a regular basis.
[c] The LSTs for a 0.63- acre site in SRA 1 were estimated from the corresponding LSTs for a 1-, 2-, and 5-acre site in SRA 1 (obtained from Appendix C [Localized Significance Threshold Screening Tables] of SCAQMD's *Final Localized Significance Threshold Methodology* document), using the linear regression calculation recommended by SCAQMD. 0.63 acres is the post-dedicated lot area.

In summary, the estimated localized construction and operational emissions associated with the project would not exceed any of SCAQMD's applicable LSTs for criteria pollutants. The LSTs represent the maximum emissions from a project that would not be expected to cause or contribute to a violation of any short-term NAAQS or CAAQS, and have been developed by the

SCAQMD for each of the SRAs in the Basin. As noted previously, the NAAQS and CAAQS are health-protective standards that define the maximum amount of ambient pollution that can be present without harming public health. Consequently, projects with emissions below the applicable LSTs would not be in violation of the NAAQS or CAAQS and, thus, EPA and CARB health protective standards. Because the project's localized construction and operational emissions would not exceed the LSTs, the project would not cause or contribute to a violation of any health-protective CAAQS and NAAQS.

Toxic Air Contaminants

Construction

As discussed previously, DPM is classified as a carcinogenic TAC by CARB and is the primary pollutant of concern with regard to health risks to sensitive receptors during project construction. Diesel-powered construction equipment as well as heavy duty truck movement and hauling would emit DPM that could potentially expose nearby sensitive receptors to pollutant concentrations.

Based on the HRA analysis performed using AERMOD and estimated PM_{10} exhaust emissions generated by on-site construction activities, the health risks at the nearest sensitive receptor locations, including the future mixed-use DTLA South Park Project, resulting from exposure to DPM emissions were determined. The estimated excess cancer risk and non-cancer hazard index results at the analyzed receptor locations are presented in Table 2.3-10.

Table 2.4-10. Estimated Health Risk from DPM Exposure During Construction

Receptor Locations[a]	Distance to Project Site (feet)	Cancer Risk (cases per million)	Chronic Hazard Index
Multi-family residential development located at 1100 S. Hill Street.	80	6.52	0.02
YWCA Greater Los Angeles campus building located at 1020 S Olive Street.	280	1.05	0.004
Multi-family residential development located at 1001 S. Olive Street.	425	0.36	0.001
Multi-family residential development located at 1100 S. Grand Avenue.	445	0.33	0.001
Future mixed-use DTLA South Park Project located at 1120 S. Olive Street.	90[b]	0.59	0.002
SCAQMD Thresholds		10	1.0
Exceed Threshold?		**No**	**No**

Source: ICF Emissions Modeling (Appendix A)

[a] The receptors analyzed in this analysis are the nearest existing and future sensitive receptor locations that would experience the highest DPM concentrations resulting from the project's construction activities.

[b] While this future mixed-use development is located directly west of the alley adjacent to the project site, the sensitive receptors (i.e., residences) at this site are set back from the alley and would be located approximately 90 feet to the west of the project site. The future development at 1120 S. Olive represents the closest of the future sensitive receptors

in the area, and therefore emissions would be higher at 1120 S. Olive Street than the future developments at 1045 Olive Street and 1105 Olive Street.

As shown in Table 2.3-10, implementation of the project would not result in increased cancer risk or hazard index in excess of SCAQMD thresholds. As such, the project's construction activities would not result in a significant increase in health risks at nearby sensitive receptors.

Operations

Typical sources of acutely and chronically hazardous TACs include industrial manufacturing processes, automotive repair facilities, and dry cleaning facilities. As the project consists of residential, TORS, and restaurant uses, the project would not include sources of substantive TAC emissions identified by the SCAQMD or CARB. Project operation would generate minimal amounts of TACs from the use of consumer products, periodic use of fuel-powered landscaping equipment, and from other activities associated with residential and commercial uses such as cleaning and reapplication of architectural coatings. However, these emissions are expected to be occasional and result in minimal exposure to off-site sensitive receptors. The project's restaurant operations would be subject to SCAQMD Rule 1138 - Control of Emissions from Restaurant Operations. The project would comply with this rule by installing a control device, such as a catalytic oxidizer, on all char broilers in order to reduce PM and VOC emissions. Thus, operation of the project would result in less than significant health risk impacts.

Carbon Monoxide Hot Spots

A CO hot spot is a localized concentration of CO that is above the state or national 1-hour or 8-hour ambient air standards for the pollutant. CO hot spots at roadway intersections are typically found in areas with significant traffic congestion. CO is a public health concern because at high enough concentrations, it can cause health problems such as fatigue, headache, confusion, dizziness, and even death. However, it should be noted that ambient concentrations of CO have declined dramatically in California because of existing controls and programs.

Most areas of the state, including the region in which the project is located in, meet the state and federal CO standards (CARB 2004). As part of SCAQMD's 2003 AQMP, which is the most recent AQMP that addresses CO concentrations, a revision to the Federal Attainment Plan for Carbon Monoxide (CO Plan) that was originally approved in 1992 was provided that included a CO hot spots analysis at four specified heavily traveled intersections in Los Angeles at the peak morning and afternoon time periods. These four intersection locations selected for CO modeling are considered to be worst-case intersections that would likely experience the highest CO concentrations. The CO hot spots analysis in the 2003 AQMP did not predict a violation of CO standards at the four intersections. Of these four intersections, the busiest intersection evaluated was that at Wilshire Boulevard and Veteran Avenue, which was described as the most heavily congested intersection in Los Angeles County with an average daily traffic volume of approximately 100,000 vehicles per day. Based on the CO modeling, the 2003 AQMP estimated that the 1-hour and 8-hour concentrations at this intersection was 4.6 ppm and 3.5 ppm, respectively, which would not exceed the most stringent 1-hour CO standard of 20.0 ppm and 8-hour CO standards of 9 ppm. In reviewing the project's Transportation Assessment, it was determined that at buildout (2026) the highest daily traffic volumes generated at an intersection

within the vicinity of the project would be an estimated cumulative total of 24,180 vehicles per day at the intersection of Olive Street and 11th Street.[12] Because the daily amount of vehicles at this study intersection would not nearly exceed 100,000 vehicles per day, it can be concluded that the project would not exceed the most stringent 1-hour and 8-hour CO standards and no detailed CO hot spots analysis for the project would be required. Therefore, the project would not result in impacts related to CO hot spots, and would not contribute a significant level of CO such that localized air quality and human health would be substantially degraded.

Impact AQ-4: Would the Project result in other emissions (such as those leading to odors adversely affecting a substantial number of people)?

According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment facilities, food processing plants, chemical plants, composting areas, refineries, landfills, dairies, and fiberglass molding facilities. The project, which is a mixed-use development that consists of multi-family residential and commercial uses, includes none of these land uses. Restaurant operation is likely to generate some odors in the project vicinity related to exhaust, but applicable equipment would be subject to the 2016 AQMP measure BCM-01 and CMB-04 as well as SCAMQD Rule 1138, all of which would reduce odoriferous emissions at the project site such that the odors would not affect a substantial number of people. Project operation would also entail the on-site collection of trash from residents, visitors, and the restaurant, which may involve odors, but which would be collected regularly and contained in an area away from the habitable portions of the project such that odors would not affect a substantial number of people. Thus, operation of the project is not expected to result in objectionable odors for the neighboring uses and would not adversely affect a substantial number of people.

During construction of the project, exhaust from equipment, activities associated with the application of architectural coatings and other interior and exterior finishes, and paving activities may produce discernible odors typical of most construction sites. Such odors would be, at worst, a temporary source of nuisance to adjacent uses, if at all, and would not affect a substantial number of people. The project would use architectural coatings compliant with SCAQMD Rule 1113, which would limit the odors associated with off-gassing from those coatings. Odors associated with asphalt paving would only occur for a limited time period for the project (approximately 1 day), and the locations of paving activities would be distributed at the project site. Additionally, material deliveries and heavy-duty haul truck trips could occasionally produce odors from diesel exhaust. These odors would not affect a substantial number of people because construction would be temporary, and construction-generated emissions dissipate rapidly with increasing distance from the source. Overall, odors associated with project construction would be temporary and intermittent in nature, and would not create a significant level of objectionable odors affecting a substantial number of people.

[12] Daily intersection volumes were estimated by assuming that combined vehicle volumes at the AM and PM peak hour would represent 20 percent of total daily volumes. Peak hour volumes were included in Appendix F to the Transportation Assessment (Fehr & Peers 2020).

Chapter 3
Greenhouse Gases and Climate Change

3.1 Existing Setting

3.1.1 Global Climate Change

The phenomenon known as the greenhouse effect keeps the atmosphere near Earth's surface warm enough for the successful habitation of humans and other life forms. The greenhouse effect is created by sunlight that passes through the atmosphere. Some of the sunlight striking Earth is absorbed and converted to heat, which warms the surface. The surface emits a portion of this heat as infrared radiation, some of which is re-emitted toward the surface by GHGs. Human activities that generate GHGs increase the amount of infrared radiation absorbed by the atmosphere, thus enhancing the greenhouse effect and amplifying the warming of Earth.

Increases in fossil fuel combustion and deforestation have exponentially increased concentrations of GHGs in the atmosphere since the Industrial Revolution (IPCC 2007). Rising atmospheric concentrations of GHGs in excess of natural levels result in increasing global surface temperatures—a phenomenon commonly referred to as global warming. Higher global surface temperatures, in turn, result in changes to Earth's climate system, including increased ocean temperature and acidity, reduced sea ice, variable precipitation, and increased frequency and intensity of extreme weather events (IPCC 2018). Large-scale changes to Earth's system are collectively referred to as climate change.

The Intergovernmental Panel on Climate Change (IPCC) was established by the World Meteorological Organization and United Nations Environment Programme to assess scientific, technical, and socioeconomic information relevant to the understanding of climate change, its potential impacts, and options for adaptation and mitigation. The IPCC estimates that human-induced warming reached approximately 1 degree Celsius (°C) above pre-industrial levels in 2017, increasing at 0.2°C per decade. Under the current nationally determined contributions of mitigation from each country until 2030, global warming is expected to rise to 3°C by 2100, with warming to continue afterwards (IPCC 2018). Large increases in global temperatures could have substantial adverse effects on the natural and human environments worldwide and in California.

3.1.2 Principal Greenhouse Gases

The principle anthropogenic (human-made) GHGs listed by the IPCC that contribute to global warming are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated compounds, including sulfur hexafluoride (SF_6), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs). Water vapor, the most abundant GHG, is not included in this list because its natural concentrations and fluctuations far outweigh its anthropogenic sources.

The primary GHGs of concern associated with the project are CO_2, CH_4, and N_2O. Principal characteristics of these pollutants are discussed below.

- **Carbon dioxide** enters the atmosphere through fossil fuels (oil, natural gas, and coal) combustion, solid waste decomposition, plant and animal respiration, and chemical reactions (e.g., manufacture of cement). CO_2 is also removed from the atmosphere (or *sequestered*) when it is absorbed by plants as part of the biological carbon cycle.
- **Methane** is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in municipal solid waste landfills.
- **Nitrous oxide** is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.

Methods have been set forth to describe emissions of GHGs in terms of a single gas to simplify reporting and analysis. The most commonly accepted method to compare GHG emissions is the global warming potential (GWP) methodology defined in IPCC reference documents. IPCC defines the GWP of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of carbon dioxide equivalent (CO_2e), which compares the gas in question to that of the same mass of CO_2 (CO_2 has a global warming potential of 1 by definition). The GWP values used in this report are based on the IPCC Fourth Assessment Report (AR4) and United Nations Framework Convention on Climate Change reporting guidelines (IPCC 2007). The AR4 GWP values are consistent with those used in CARB's most recent GHG inventory and the 2017 Scoping Plan Update.

Table 3.1-1 lists the global warming potential of CO_2, CH_4, and N_2O and their lifetimes in the atmosphere.

Table 3.1-1. Lifetimes and Global Warming Potentials of Key Greenhouse Gases

Greenhouse Gas	Global Warming Potential (100 years)	Lifetime(years)[a]
CO_2	1	50–200
CH_4	25	9–15
N_2O	298	121

Source: CARB 2021a.
[a] Defined as the half-life of the gas.
CH_4 = methane
CO_2 = carbon dioxide
N_2O = nitrous oxide

GHGs are global pollutants, unlike criteria air pollutants and TACs. Criteria air pollutants and TACs occur locally or regionally, and local concentrations respond to locally implemented control measures. However, the long atmospheric lifetimes of GHGs allow them to be transported great distances from sources and become well mixed, unlike criteria air pollutants, which typically exhibit strong concentration gradients away from point sources. GHGs and global climate change represent cumulative impacts; that is, GHG emissions contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change.

3.1.3 Statewide Greenhouse Gas Emissions Trends

A GHG inventory is a quantification of all GHG emissions and sinks[13] within a selected physical and/or economic boundary. GHG inventories can be performed on a large scale (e.g., for global and national entities) or on a small scale (e.g., for a building or person). Although many processes are difficult to evaluate, several agencies have developed tools to quantify emissions from certain sources.

CARB has prepared a statewide emissions inventory covering 2000 to 2018, which demonstrates that GHG emissions have decreased by approximately nine percent over that period (CARB 2021b). The largest reductions in GHG emissions have come from the electricity sector, which continues to decrease as a result of the state's climate policies that has led to a growth in wind generation and solar power. Emissions in 2018 from the transportation sector, which represents California's largest source of GHG emissions and contributed 41 percent of total annual emissions. The industrial sector is the second largest contributor to GHG emissions in California, with 24 percent. Table 3.1-2 shows statewide GHG emission estimates from 2008 to 2018 in California. Note that the 2020 target (1990 levels) is 426.6 million metric tons of CO_2e ($MMTCO_2e$) while the 2030 target (40 percent below 1990 levels) is currently set at 260 $MMTCO_2e$.

Table 3.1-2. California Greenhouse Gas Emissions Inventory 2008–2018

	Annual CO_2e Emissions (million metric tons)										
Sector	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Transportation	175	168	165	162	161	161	163	166	170	171	170
Industrial	90	87	91	89	89	92	92	90	89	89	89
Electric Power	120	101	90	89	98	91	89	85	69	62	63
Commercial/Residential	44	44	46	46	44	44	38	39	41	41	41
Agriculture	35	33	34	34	35	34	35	33	33	32	33
High Global Warming Potential	12	12	14	15	16	17	18	19	19	20	20
Recycling and Waste	8	9	9	9	9	9	9	9	9	9	9
Emissions Total	**484**	**455**	**448**	**444**	**452**	**448**	**443**	**441**	**429**	**425**	**425**

Source: CARB 2021b.
Totals may not add exactly due to rounding.

3.2 Regulatory Framework

3.2.1 Federal

Historically, GHGs were not directly regulated under the FCAA. However, the 2007 ruling by the U.S. Supreme Court in *Massachusetts v. EPA* found that the U.S. EPA may regulate GHGs if they are

[13] A GHG sink is a process, activity, or mechanism that removes a GHG from the atmosphere.

determined to be a danger to human health. In response, President George W. Bush ordered the U.S. EPA to use its existing authority under the FCAA to regulate GHGs from mobile sources.

The U.S. EPA issued its so-called Endangerment Finding in December 2009, which found that six GHGs do threaten the health and welfare of current and future generations. For mobile sources, the Endangerment Finding led to development of the Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards Rule (LDV Rule) by the U.S. EPA and the National Highway Traffic Safety Administration in May 2010. The LDV rule first applied to model years 2012–2017 but was later extended to the 2025 model year. It requires light-duty vehicles to comply with progressively more stringent GHG emission standards for the 2012–2025 model years. For stationary sources, the Endangerment Finding led to the so-called Tailoring Rule in May 2010, which tailored permit trigger levels to the largest sources.

The U.S. EPA phased in GHG permitting requirements for stationary sources for the period from 2010 to 2014. However, the U.S. Supreme Court decision on June 23, 2014, in *Utility Air Regulatory Group v. EPA*, limited the applicability of GHG requirements to large sources that are already subject to major-source permitting under the FCAA because of other pollutants. The U.S. EPA also developed New Source Performance Standards, which cover GHGs associated with power plants and certain oil and gas sources. In addition, the agency maintains an annual GHG reporting program that covers multiple industrial sectors. However, none of the current FCAA requirements for GHGs are expected to directly affect the proposed project.

The U.S. EPA adopted a Mandatory Reporting Rule and Clean Power Plan, which issued regulations to control CO_2 emissions from new and existing coal-fired power plants. However, on February 9, 2016, the Supreme Court issued a stay for these regulations pending litigation. Former U.S. EPA Administrator Scott Pruitt also signed a measure to repeal the Clean Power Plan. The fate of the proposed regulations is uncertain, pending deliberation in federal courts. Therefore, there is currently no overarching federal law related specifically to climate change or a reduction in GHG emissions.

3.2.2 State

California has adopted statewide legislation addressing various aspects of climate change, GHG mitigation, and energy efficiency. Much of this establishes a broad framework for the state's long-term GHG and energy reduction goals and climate change adaptation program. The former and current governor(s) of California have also issued several executive orders (EOs) related to the state's evolving climate change policy. Summaries of key policies, EOs, regulations, and legislation at the state level that are relevant to the project are provided below in chronological order.

3.2.3 Assembly Bill 1493—Pavley Rules (2002, amendments 2009)/Advanced Clean Cars (2011)

Known as Pavley I, Assembly Bill (AB) 1493 provided the nation's first GHG standards for automobiles. AB 1493 required CARB to adopt vehicle standards that will lower GHG emissions from new light-duty autos to the maximum extent feasible beginning in 2009. Additional

strengthening of the Pavley standards (referred to previously as *Pavley II* and now referred to as the *Advanced Clean Cars* [ACC] measure) was adopted for vehicle model years 2017–2025 in 2012. Together, the two standards are expected to increase average fuel economy to roughly 54.5 mpg in 2025.

3.2.4 Senate Bills 1078/107/X 1-2—Renewables Portfolio Standard and Renewable Energy Resources Act (2002, 2006, 2011)

SBs 1078 and 107, California's Renewables Portfolio Standard (RPS), obligated investor-owned utilities, energy service providers, and Community Choice Aggregations to procure an additional 1 percent of retail sales per year from eligible renewable sources until 20 percent is reached by 2010. The California Public Utilities Commission and California Energy Commission (CEC) are jointly responsible for implementing the program. SB X 1-2, called the California Renewable Energy Resources Act, obligates all California electricity providers to obtain at least 33 percent of their energy from renewable resources by 2020. As noted below, SB 350 increased the RPS to 50 percent for 2030, and SB100 increased the RPS to 100 percent by 2045.

3.2.5 Executive Order S-03-05 (2005)

EO S-3-05 stated that California is vulnerable to the effects of climate change. To combat this concern, the order established the following GHG emissions reduction targets:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

Executive orders are legally binding only on state agencies. Accordingly, EO S-3-05 guides state agencies' efforts to control and regulate GHG emissions but has no direct, binding effect on local government or private actions. The secretary of the California Environmental Protection Agency is required to report to the governor and state legislature biannually regarding the impacts of global warming on California, mitigation and adaptation plans, and progress made toward reducing GHG emissions and meeting the targets established in EO S-3-05.

3.2.6 Assembly Bill 32—California Global Warming Solutions Act (2006)

AB 32 codified the state's GHG emissions target by requiring California's global warming emissions to be reduced to 1990 levels by 2020. Since being adopted, CARB, CEC, the California Public Utilities Commission, and the California Building Standards Commission have been developing regulations that will help the state meet the goals of AB 32 and EO S-03-05. The scoping plan for AB 32 identifies specific measures to reduce GHG emissions to 1990 levels by 2020 and requires CARB and other state agencies to develop and enforce regulations and other

initiatives to reduce GHG emissions. The AB 32 Scoping Plan, first adopted in 2008, comprises the state's roadmap for meeting AB 32's reduction target. Specifically, the scoping plan articulates a key role for local governments by recommending that they establish GHG emissions-reduction goals for both their municipal operations and the community that are consistent with those of the state (i.e., approximately 15 percent below 2005 levels by 2020) (CARB 2008).

CARB re-evaluated its emissions forecast in light of the economic downturn and updated the projected 2020 emissions to 545 $MMTCO_2e$. Two reduction measures (Pavley I and RPS [12–20 percent]) that were not previously included in the 2008 scoping plan baseline were incorporated into the updated baseline, further reducing the 2020 statewide emissions projection to 507 $MMTCO_2e$. The updated forecast of 507 $MMTCO_2e$ is referred to as the AB 32 2020 baseline. An estimated reduction of 80 $MMTCO_2e$ is necessary to lower statewide emissions to the AB 32 target of 427 million $MTCO_2e$ by 2020 (CARB 2014).

CARB approved the *First Update to the Scoping Plan* (First Update) on May 22, 2014 (CARB 2014). The First Update includes both a 2020 element and a post-2020 element. The 2020 element focuses on the state, regional, and local initiatives that are being implemented now to help the state meet the 2020 goal.

On December 14, 2017, CARB approved the *2017 Climate Change Scoping Plan Update* (referred to as 2017 Scoping Plan herein), which is the proposed strategy for achieving California's 2030 GHG emissions target. In addition to building on established programs, such as cap-and-trade regulation, and the low-carbon fuel standard (LCFS), the update addresses, for the first time, GHG emissions related to agriculture and forestry in California (CARB 2017).

3.2.7 Executive Order S-01-07—Low Carbon Fuel Standard (2007)

EO S-01-07, the Low-Carbon Fuel Standard (LCFS), mandates (1) that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020, with a reduction in the carbon content of fuel by a quarter of a percent starting in 2011, and (2) that a low carbon fuel standard for transportation fuels be established in California.

S regulation was amended to increase the statewide goal to a 20-percent reduction in carbon intensity of California's transportation fuels by at least by 2030.

3.2.8 Senate Bill 375 (2008)

SB 375, signed into law by Governor Schwarzenegger on September 30, 2008, became effective January 1, 2009. This law requires the state's 18 Metropolitan Planning Organizations to develop the sustainable communities strategies (SCS) as part of their RTPs through integrated land use and transportation planning, and to demonstrate an ability to attain the GHG emissions reduction targets that the CARB established for the region by 2020 and 2035. This would be accomplished through either the financially constrained SCS as part of the RTP or an unconstrained alternative planning strategy. If regions develop integrated land use, housing, and transportation plans that

meet the SB 375 targets, new projects in these regions can be relieved of certain CEQA review requirements.

3.2.9 Assembly Bill 341 (2011)

In 2011, AB 341 modified the California Integrated Waste Management Act and directed CalRecycle to develop and adopt regulations for mandatory commercial recycling. The resulting Mandatory Commercial Recycling Regulation (2012) requires that on and after July 1, 2012, certain businesses that generate 4 cubic yards or more of commercial solid waste per week or is a multifamily residential dwelling of 5 units or more must arrange recycling services. To comply with this requirement, businesses may either separate recyclables and self-haul them or subscribe to a recycling service that includes mixed waste processing. AB 341 also established a statewide recycling goal of 75 percent by 2020.

3.2.10 Cap-and-Trade (2011, 2017)

CARB adopted the cap-and-trade program in October 2011. The California Cap-and-Trade program is a market-based system with an overall emissions limit for affected emission sources. Affected sources include in-state electricity generators, hydrogen production, petroleum refining, and other large-scale manufacturers and fuel suppliers and distributors. The original Cap-and-Trade program set a compliance schedule through 2020. AB 398 extends the program through 2030 and requires CARB to make refinements, including establishing a price ceiling. Revenue generated from the Cap-and-Trade program is used to fund various programs. AB 398 established post-2020 funding priorities, to include (1) Air Toxics and Criteria Pollutants, (2) Low and Zero Carbon Transportation, (3) Sustainable Agricultural Practices, (4) Healthy Forests and Urban Greening, (5) Short-lived Climate Pollutants, (6) Climate Adaptation and Resiliency, and (7) Climate and Clean Energy Research.

3.2.11 Senate Bill 1383 (2013)

SB 1383, adopted in 2013, requires CARB to develop and implement a Short-Lived Climate Pollutant (SLCP) Strategy with the following 2030 goals: 40 percent reduction in methane; 40 percent reduction in hydrofluorocarbon (HFC) gases; and 50 percent reduction in anthropogenic black carbon. Per its directive, CARB adopted the SLCP Strategy, establishing a path to decrease SLCPs from various sectors of the economy. Strategies span from wastewater and landfill practices and methane recovery to reducing natural gas leaks and consumption. The SLCP strategy also identifies measures that can reduce HFC emissions through incentive programs and limitations on the use of high-GWP refrigerants in new refrigeration and air-conditioning equipment.

3.2.12 Executive Order B-30-15 (2015)

Governor Jerry Brown signed EO B-30-15 on April 29, 2015. EO B-30-15 established a medium-term goal for 2030 of reducing GHG emissions by 40 percent below 1990 levels and requires the

CARB to update its current AB 32 Scoping Plan to identify measures to meet the 2030 target. The EO B-30-15 supports EO S-3-05 but is only binding on state agencies.

3.2.13 Senate Bill 350 (2015)

SB 350 (De León, also known as the "Clean Energy and Pollution Reduction Act of 2015") was approved by the California legislature in September 2015 and signed by Governor Brown in October 2015. Its key provisions are to require the following by 2030: (1) an RPS of 50 percent and (2) a doubling of efficiency for existing buildings.

3.2.14 Senate Bill 32, California Global Warming Solutions Act of 2006: Emissions Limit, and Assembly Bill 197, State Air Resources Board, Greenhouse Gases, Regulations (2016)

SB 32 (Pavley) bill requires CARB to ensure that statewide GHG emissions are reduced to at least 40 percent below the 1990 level by 2030, consistent with the target set forth in EO B-30-15. The bill specifies that SB 32 shall become operative only if AB 197 (Garcia) is enacted and becomes effective on or before January 1, 2017. AB 197 creates requirements to form the Joint Legislative Committee on Climate Change Policies; requires CARB to prioritize direct emission reductions from stationary sources, mobile sources, and other sources and consider social costs when adopting regulations to reduce GHG emissions beyond the 2020 statewide limit; requires CARB to prepare reports on sources of GHGs, criteria air pollutants, and toxic air contaminants; establishes 6-year terms for voting members of CARB; and adds two legislators as non-voting members of CARB. Both bills were signed by Governor Brown in September 2016.

CARB approved the 2017 Scoping Plan Update in December 2017, which builds on the programs set in place as part of the previous Scoping Plan that was drafted to meet the 2020 reduction targets per AB 32. The 2017 Scoping Plan Update proposes meeting the 2030 goal by accelerating the focus on zero and near-zero technologies for moving freight, continued investment in renewables, greater use of low-carbon fuels including electricity and hydrogen, stronger efforts to reduce emissions of short-lived climate pollutants (CH_4, black carbon, and fluorinated gases), further efforts to create walkable communities with expanded mass transit and other alternatives to traveling by car, continuing the cap-and-trade program, and ensuring that natural lands become carbon sinks to provide additional emissions reductions and flexibility in meeting the target. The Scoping Plan Update also recommends that local governments aim to achieve community-wide efficiency of 6 $MTCO_2e$ per capita by 2030 and 2 $MTCO_2e$ per capita by 2050 to be used in local climate action planning. These efficiency targets would replace the "15 percent from 2008 levels by 2020" approach recommended in the initial Scoping Plan, which would allow for local governments to grow in a sustainable manner (CARB 2016).

3.2.15 SB 743 (2013)

Under SB 743, in 2013, the Governor's Office of Planning and Research (OPR) implemented changes to the CEQA Guidelines, including the addition of Section 15064.3, which requires CEQA transportation analyses to move away from a focus on vehicle delay and level of service (OPR 2017a). In support of these changes, OPR published its Technical Advisory on Evaluating Transportation Impacts in CEQA, which recommends that the determination of the transportation impact of a project be based on whether project-related vehicle miles traveled (VMT) per capita (or VMT per employee) would be 15 percent lower than that of existing development in the region (OPR 2017b). OPR's technical advisory explains that this criterion is consistent with Section 21099 of the California Public Resources Code, which states that the criteria for determining significance must "promote the reduction in greenhouse gas emissions" (OPR 2017b). This metric is intended to replace the use of vehicle delay and level of service to measure transportation-related impacts.

3.2.16 Senate Bill 100 (2018)

SB 100 (De León, also known as the "California Renewables Portfolio Standard Program: emissions of greenhouse gases") was approved by the California legislature and signed by Governor Brown in September 2018. The bill increases RPS in 2030 from 50 percent to 60 percent and establishes a goal of 100 percent RPS by 2045. SB 100 is a legislative action that was signed into law after the 2017 Scoping Plan was adopted. The Scoping Plan modeling is based on the SB 350 target of 50 percent renewables by 2030. However, the new SB 100 target of 60 percent renewables by 2030 and 100 percent renewables by 2045 supersede the goals of SB 350 and will be included in future Scoping Plan updates.

3.2.17 Executive Order B-55-18 (2018)

EO B-55-18 was approved by the California legislature and signed by Governor Brown in September 2018. EO B-55-18 acknowledges the environmental, community, and public health risks posed by future climate change. It further recognizes the climate stabilization goal adopted by 194 states and the European Union under the Paris Agreement. While the United States was not party to the agreement, California is committed to meeting the Paris Agreement goals and going beyond them wherever possible. Based on the worldwide scientific agreement that carbon neutrality must be achieved by midcentury, EO B-55-18 establishes a new state goal to achieve carbon neutrality as soon as possible, and no later than 2045, and to achieve and maintain net negative emissions thereafter. The EO charges the CARB with developing a framework for implementing and tracking progress towards these goals. This EO extends EO S-3-05, but is only binding on state agencies. However, given this directive, it is likely that the carbon neutral goal by 2045 will make its way into future updates to the Scoping Plan, which must be updated every five years.

3.2.18 Green Building Code and Title 24 Updates

The California Green Building Standards (CALGreen) Code (proposed Part 11, Title 24) was adopted as part of the California Building Standards Code (24 CCR). Part 11 established voluntary standards that became mandatory under the 2010 edition of the code. These involved sustainable site development, energy efficiency (in excess of CEC requirements), water conservation, material conservation, and internal air contaminants. The current energy efficiency standards were adopted in 2018 and took effect on January 1, 2020. The CEC is responsible for adopting, implementing, and updating the standards every three years.

3.2.19 Regional

3.2.20 South Coast Air Quality Management District

As discussed previously in Chapter 2.2 of this report, the SCAQMD has primary responsibility for development and implementation of rules and regulations to attain the NAAQS and CAAQS as well as permitting new or modified sources, developing air quality management plans, and adopting and enforcing air pollution regulations within the Basin. CARB's Scoping Plans do not provide an explicit role for local air districts with respect to implementing the reduction goals of SB 32 and AB 32, but CARB does state that they will work actively with air districts in coordinating emissions reporting, encouraging and coordinating GHG reductions, and providing technical assistance in quantifying reductions. The ability of air districts to control emissions (both criteria pollutants and GHGs) is provided primarily through permitting but also through their role as a CEQA lead or commenting agency, the establishment of CEQA thresholds, and the development of analytical requirements for CEQA documents.

On December 5, 2008, SCAQMD Governing Board considered draft GHG guidance, and adopted a staff proposal for an interim GHG significance threshold of 10,000 $MTCO_2e$ per year for industrial permitting projects where SCAQMD is the lead agency. The board letter, resolution, interim GHG significance threshold, draft guidance document, and attachments can be found under Board Agenda Item 31 of the December 5, 2008, Governing Board Meeting Agenda (SCAQMD 2008a). In its draft guidance document, SCAQMD included evidence and rationale for developing thresholds, specifically citing CEQA Guidelines Section 15064.7(a) *("each public agency is encouraged to develop and publish thresholds of significance that the agency uses in the determination of the significance of environmental effects"*) and Subsection (b) (*"Thresholds of significance to be adopted for general use as part of the lead agency's environmental review process must be adopted by ordinance, resolution, rule or regulation, and developed through a public review process and be supported by substantial evidence"*). SCAQMD developed thresholds for both stationary sources as well as for land use development projects. SCAQMD's recommended GHG significance threshold underwent a public review process as part of stakeholder working group meetings that were open to the public. The draft guidance document provides the supporting analysis and methodology for developing the GHG significance thresholds for both stationary sources as well as for land use development projects. After completion of the public process, the proposed interim thresholds for land use development projects were brought to the SCAQMD's Governing Board but were not formally

adopted, while the threshold involving industrial permitting projects where SCAQMD is lead agency was adopted.

For industrial process, the SCAQMD has formally adopted a 10,000 $MTCO_2e$ threshold for industrial (permitted) facilities where SCAQMD is the lead agency. This industrial source threshold is not appropriate for use on residential, commercial, or mixed-use projects such as the project, since it is not associated with industrial processes.

SCAQMD noted that the proposed interim GHG significance thresholds for evaluation of land use development projects was only a recommendation for lead agencies and not a mandatory requirement. The GHG significance threshold may be used at the discretion of the local lead agency. The draft GHG guidance identified a tiered approach for determining the significance of GHG emissions, one of which included the use of numerical screening thresholds. With respect to numerical GHG significance thresholds, the SCAQMD proposed two different approaches to be taken by lead agencies when analyzing GHG emissions:

- Option #1 includes using separate numerical thresholds for residential projects (3,500 $MTCO_2e$/year), commercial projects (1,400 MTCO2e/year), and mixed-use projects (3,000 MTCO2e/year).
- Option #2 is use of a single numerical threshold for all non-industrial projects of 3,000 $MTCO_2e$/year. SCAQMD's most recent recommendation per its September 2010 meeting minutes is to use option #2.

However, these numerical thresholds have not been adopted by SCAQMD.

3.2.21 Southern California Association of Governments (SCAG) 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy

SCAG is the Metropolitan Planning Organization (MPO) for the six-county region that includes Los Angeles, Orange, Riverside, Ventura, San Bernardino, and Imperial counties. The 2020-2045 RTP/SCS includes commitments to reduce emissions from transportation sources to comply with SB 375, AB 32, and SB 32. Goals and policies included in the 2020-2045 RTP/SCS to reduce GHG emissions consist of adding density in proximity to transit stations, mixed-use development and encouraging active transportation (i.e., non-motorized transportation such as bicycling).

SB 375 requires CARB to develop regional CO_2 emission reduction targets, compared to 2005 emissions, for cars and light trucks only for 2020 and 2035 for each MPO. SB 375 also requires that each MPO prepare an SCS as part of the RTP to reduce CO_2 by better aligning transportation, land use, and housing. For SCAG, the SCS targets require SCAG to reduce per capita emissions eight percent below 2005 levels by 2020 and 19 percent below 2005 levels by 2035 (SCAG 2020). The 2020-2045 RTP/SCS states that the region will meet the SB 375 per capita targets.

3.2.22 Local

3.2.23 Sustainable City pLAn

Under Mayor Eric Garcetti the City of Los Angeles released its first-ever Sustainable City pLAn (pLAn) on April 8, 2015 (City of Los Angeles 2015). Recognizing the risks posed by climate change, the pLAn set time-bound outcomes on climate action, most notably to reduce GHG emissions by 45 percent by 2025, 60 percent by 2035, and 80 percent by 2050, all against a 1990 baseline. Through the completion and verification of the GHG inventory update, the City concluded that:

- The City accounted for approximately 36.2 $MMTCO_2e$ in 1990;
- The City's most recent inventory shows that emissions fell to 29 $MMTCO_2e$ in 2013; and
- Los Angeles' emissions are 20 percent below the 1990 baseline as of 2013, putting Los Angeles nearly halfway to the 2025 pLAn reduction target of 45 percent.

In addition, the 20 percent reduction exceeds the 15 percent statewide goal listed in the First Update to the AB 32 Scoping Plan.

On April 29, 2019, Mayor Garcetti released the Los Angeles' Green New Deal, which is the first four-year update to the 2015 pLAn (the Sustainable City pLAn, as updated by Los Angeles' Green New Deal, is referred to herein as the 2019 updates to the pLAn). This updated plan augments, expands, and elaborates in even more detail the City's vision for a sustainable future and assigns accelerated GHG emission reduction targets and new aggressive goals to place the City on the path to a zero carbon future by 2050. The 2019 updates to the pLAn accelerate the following targets (City of Los Angeles 2019):

- LADWP will supply 55 percent renewable energy by 2025; 80 percent by 2036; and 100 percent by 2045
- Sourcing 70 percent of the City's water locally by 2035, and capturing 150,000 acre feet/year (AFY) of stormwater by 2035
- Reduce building energy use per square feet for all types of buildings 22 percent by 2025; 34 percent by 2035; and 44 percent by 2050
- Reduce vehicle miles traveled (VMT) per capita by at least 13 percent by 2025, 39 percent by 2035, and 45 percent by 2050
- Ensure 57 percent of new housing units are built within 1,500 feet of transit by 2025; and 75 percent by 2035
- Increase the percentage of zero emission vehicles in the City to 25 percent by 2025; 80 percent by 2035; and 100 percent by 2050
- Create 300,000 green jobs by 2035; and 400,000 by 2050

- Convert all City fleet vehicles to zero emission where technically feasible by 2028
- Reduce municipal GHG emissions 55 percent by 2025 and 65 percent by 2035 from 2008 baseline levels, reaching carbon neutral by 2045

Overall, the updated plan calls for reducing GHGs to 50 percent below 1990 levels by 2025; 73 percent below 1990 levels by 2035; and becoming carbon neutral by 2050. By following the 2019 updates to the Sustainable City pLAn, the City is expected to reduce an additional 30 percent in GHG emissions above and beyond the 2015 pLAn.

3.2.24 City of Los Angeles Green Building Code

In April 2008, the City of Los Angeles adopted the Green Building Program Ordinance to address the impact on climate change from new development. In 2011, 2014, and 2016, Chapter IX, Article 9, of the Los Angeles Municipal Code (LAMC), referred to as the Los Angeles Green Building Code, was amended to incorporate various provisions of the CALGreen Code. The Los Angeles Green Building Code includes mandatory requirements and elective measures for three categories of buildings: (1) low-rise residential buildings; (2) non-residential and high-rise residential buildings; and (3) additions and alterations to residential and non-residential buildings.

3.3 Greenhouse Gases and Climate Change Impacts and Mitigation Measures

3.3.1 Methodology

Project related activities would result in short-term and long-term generation of GHG emissions during construction and operation. The GHGs that were quantitatively estimated for the project include CO_2, CH_4, and N_2O. Emissions of CO_2e were then calculated using the GWP of each of these pollutants based on IPCC AR4. The GHG emissions from the project were quantified using the same methods described above for estimating criteria pollutants.

3.3.2 Short-term Construction-Generated Emissions

During project construction, GHG emissions would be generated by off-road, heavy-duty construction equipment at the project site and worker, vendor, and haul truck vehicle trips traveling to and from the project site. As was conducted for the criteria pollutant analysis, the project's construction-related GHG emissions resulting from off-road equipment and on-road vehicles have been estimated using a combination of emission factors and methodologies from CalEEMod, version 2016.3.2, and CARB's EMFAC2017 model, and based on project-specific construction data (e.g., schedule, equipment, truck volumes) provided by the project applicant, where available. Where project-specific information was not available, reasonable assumptions based on other similar projects and default model settings were used to estimate GHG emissions. In addition, the supplying of electricity to the project site to power the electric equipment (i.e., tower crane, manlifts, concrete pouring booms) during the building construction phase of the

project would indirectly generate GHG emissions. These GHG emissions generated during the building phase of construction have been quantified based on the electricity consumption of the equipment, their hours of use, and carbon intensity factors for the Los Angeles Department of Water and Power (LADWP), which is the electricity utility company serving the project area. The modeling output files are provided in Appendix A of this report.

Based on SCAQMD's 2008 *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold* document, SCAQMD recommends that for construction GHG emissions the total emissions for a project be amortized over a 30-year period and added to its operational emission estimates (SCAQMD 2008b). Thus, in accordance with SCAQMD's recommendation, the project's construction GHG emissions have been amortized over a 30-year lifetime of the project (i.e., total construction GHG emissions were divided by 30) and the resulting annual emissions were added to the project's estimated annual operational GHG emissions.

3.3.3 Long-term Operational Emissions

The project's operational GHG emissions, including GHGs generated by direct and indirect sources, have been estimated according to the recommended methodologies from SCAQMD. Direct sources include emissions such as vehicle trips, natural gas consumption, and landscape maintenance. Indirect sources include off-site emissions occurring as a result of the project's operations such as electricity and water consumption and solid waste disposal. As was conducted for the criteria pollutant analysis, the direct and indirect GHG emissions generated during the project's operations, with the exception of mobile-source emissions, have been estimated using the CalEEMod software. Modeling is based on project-specific data (e.g., size and type of proposed uses) and design features. The GHG emission calculations for the project also include credits or reductions for GHG-reducing measures that are required by regulation, such as reductions in energy and water demand from the City's Green Building Code, which incorporates by reference the CALGreen Code. Additionally, because the proposed residential uses would be supplied with Energy Star appliances, the reduction in energy usage have also been accounted in CalEEMod based on the most recent data from the Energy Star program regarding energy efficiencies for clothes washers, dishwashers, refrigerators, and ceiling fans. The solid waste GHG emissions associated with the project also accounts for the most recent solid waste diversion rate achieved by the City that has been reported, which was approximately 76 percent in 2012 (City of Los Angeles 2013).

Similar to the criteria pollutant analysis, the modeling of mobile-source GHG emissions during project operations have been conducted using vehicle fleet emission factors generated from the EMFAC2017 model for Los Angeles County and applying the GHG emission factors to the daily VMT associated with the project's new multi-family residential, TORS, and commercial.[14] The VMT data was obtained from the TA prepared by Fehr &Peers for the project (Fehr & Peers 2020). The mobile source emissions modeling takes into account trip reductions from internal capture resulting from co-locating different land uses on the project site and from nearby access to public transportation. Additionally, because the project qualifies as a transit priority project under SB

[14] Similar to the criteria pollutant analysis, the analysis of GHG emissions accounts for CARB's GHG adjustment factors for gasoline light duty vehicles to account for the SAFE Vehicles Rule.

375 and thereby meets the eligibility criteria for CEQA streamlining under PRC 21159.28, the mobile GHG emissions generated by cars and light-duty truck trips associated with the project would not need to be included in the environmental analysis. As such, the mobile GHG emissions estimated for the project in this analysis excludes those emissions from the project's passenger cars and light-duty trucks.

Consistency with Greenhouse Gas Reduction Plan, Policies, and Actions

The project's GHG emissions are also evaluated by assessing the project's consistency with applicable GHG reduction strategies and local actions adopted by the City. As discussed further below, the City has established goals and actions to reduce the generation and emission of GHGs from both public and private activities in the Sustainable City pLAn.

In the 2010 CEQA Guidelines amendments, lead agencies were encouraged to tier from programmatic mitigation plans and programs when they perform individual project analyses. As indicated above, the City does not have a programmatic mitigation plan to tier from, such as a GHG reduction plan, as recommended in the relevant amendments to the CEQA Guidelines. However, the Mayor's office has released the Sustainable City pLAn, and the City has adopted the Los Angeles Green Building Code, which encourage and require applicable projects to implement energy efficiency measures. In addition, project consistency with state and regional regulatory plans and policies to reduce GHG emissions are analyzed herein, including CARB's 2017 Scoping Plan and SCAG's 2020-2045 RTP/SCS.

3.3.4 Thresholds of Significance

CEQA Guidelines

Appendix G of the CEQA Guidelines provides screening questions that are intended to assist lead agencies when assessing a project's potential impacts regarding GHG emissions, as follows:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment;
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

With respect to GHG emissions, CEQA Guidelines Section 15064.4 provides guidance to lead agencies for determining the significance of impacts from GHG emissions. Section 15064.4(a) provides that a lead agency shall make a good-faith effort based, to the extent possible, on scientific and factual data to describe, calculate, or estimate the amount of GHG emissions resulting from a project. Section 15064.4(a) further provides that a lead agency shall have the discretion to determine, in the context of a particular project, whether to: (1) quantify GHG emissions resulting from a project and/or (2) to rely on qualitative analysis or performance-based standards.

Pursuant to CEQA Guidelines Section 15064.4(a), the analysis presented herein quantifies GHG emissions resulting from the project and provides a good-faith effort to describe, calculate, and

estimate GHG emissions resulting from the project and compares those emissions with the chosen threshold level.

CEQA Guidelines Section 15064.4(b) also provides that, when assessing the significance of impacts from GHG emissions, a lead agency should focus the analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change and consider a timeframe that is appropriate for the project. The lead agency's analysis should reasonably reflect evolving scientific knowledge and state regulatory schemes, and consider (1) the extent to which the project may increase or reduce GHG emissions compared with existing conditions, (2) whether the project's GHG emissions exceed a threshold of significance that the lead agency determines applies to the project, and (3) the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. The analysis of the potential impacts from the project's GHG emissions follows this approach.

Available Thresholds

The CEQA Guidelines do not provide numeric or qualitative thresholds of significance for evaluating GHG emissions. Instead, they leave the determination of the significance of GHG emissions up to the lead agency and authorize the lead agency to consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence (CEQA Guidelines Sections 15064.7[b] and 15064.7[c]). Additionally, any public agency may also use an environmental standard as a threshold of significance, as it would promote consistency in significance determination and integrates environmental review with other environmental program planning and regulations (CEQA Guidelines Section 15064.7[d]).

As discussed under Section 3.2, Regulatory Framework, AB 32 establishes the requirement for reducing statewide GHGs to 1990 emissions levels by 2020. A number of air quality management agencies throughout the state have drafted or adopted various threshold approaches and guidelines for analyzing 2020 operational GHG emissions in CEQA documents. The different thresholds include (1) compliance with a qualified GHG reduction strategy, (2) performance-based reductions, (3) numeric "bright-line" thresholds, (4) efficiency-based thresholds, and (5) compliance with regulatory programs. The California Supreme Court's *Newhall Ranch* decision confirmed that, when an agency chooses to rely completely on a single quantitative method to justify a no-significance finding, "CEQA demands the agency research and document the quantitative parameters essential to that method" (*Center for Biological Diversity v. Department of Fish and Wildlife* [2015] Cal.App.4th). The *Golden Door* case reinforced the message from the *Newhall Ranch* decision that analyses need to provide substantial evidence to support significance thresholds selected for use in the CEQA analysis (*Golden Door Properties v. County of San Diego* [2018] 27 Cal.App.5th 892,). Further, the appellate court ruling in City of *Long Beach v. City of Los Angeles* held that a qualitative analysis of consistency with state GHG reductions plans is adequate and projects that generate a significant amount of GHG emissions may still be consistent with state and local GHG reduction plans (*City of Long Beach v. City of Los Angeles*

[2018] 19 Cal.App.5th 465). A qualitative analysis is also supported by the CEQA Guidelines and the SB 97 Final Statement of Reasons.[15]

The City has not adopted a threshold with supporting analysis setting forth approaches and guidelines for analyzing GHG emissions and climate change in CEQA documents. Additionally, although the City prepared the Sustainable City pLAn in 2015, followed by the update in 2019, these plans do not adopt thresholds of significance and otherwise do not meet the criteria established under CEQA Guidelines Section 15183.5(b) to be considered as qualified GHG reduction plans.

The SCAQMD has yet to adopt a GHG significance threshold for land use development projects (e.g., residential/commercial projects) but did form a GHG significance threshold working group to further evaluate potential GHG significance thresholds (SCAQMD 2008c). In October 2008, SCAQMD released a draft guidance document regarding interim CEQA GHG significance thresholds (SCAQMD 2008b). Within its October 2008 document, the SCAQMD proposed interim CEQA GHG indicators of significance using a tiered approach. Under Tier 1, projects that are exempt from CEQA would be less than significant. Under Tier 2, projects that are consistent with an adopted GHG reduction plan would be less than significant. Under Tier 3, all non-industrial land use projects, including mixed-use projects that emit 3,000 $MTCO_2e$ per year or less would be less than significant (SCAQMD 2008b). Tier 4 uses performance standards that require projects to demonstrate that they meet a percent emission reduction target below business as usual to determine significance for commercial/residential projects that emit more than 3,000 $MTCO_2e$ per year (SCAQMD 2008b).

In November 2009, the working group proposed an additional Tier 4 standard that uses performance standards, including a requirement for projects to demonstrate that they meet a service population metric to determine significance for commercial/residential projects that emit more than 3,000 $MTCO_2e$ per year (SCAQMD 2009).[16] The working group proposed a project-level target of 4.6 $MTCO_2e$ per service population, based on calculations performed by the Bay Area Air Quality Management District (BAAQMD 2009). On December 5, 2008, the SCAQMD Governing Board adopted a staff proposal for an interim GHG significance threshold of 10,000 $MTCO_2e$ for stationary source/industrial projects when the SCAQMD is lead agency (SCAQMD 2008a). In the September 2010 presentation by the working group, the Tier 4 performance standard of a percent emission reduction target below business as usual referred to an approach used by the San Joaquin Valley Air Pollution Control District that uses a comparison of a development's GHG emissions to a business-as-usual scenario (SCAQMD 2010a, SJVAPCD 2009).

The working group did not recommend a specific numeric reduction target in the September 2010 presentation (SCAQMD 2010a). In addition, in September 2010, the working group recalculated the target as 4.8 $MTCO_2e$ per service population by dividing the 2020 statewide GHG

[15] See CEQA Guidelines Sections 15064.4; 15064.7; California Natural Resources Agency, Final Statement of Reasons for Regulatory Action, Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Case Emissions Pursuant to SB 97, December 2009. Available: <http://resources.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf>. Accessed: July 19, 2021.

[16] The SCAQMD defines service population as including population and employment.

reduction target for the land use sector by the sum of total statewide population and land use sector employment, as explained in the September 28, 2010, minutes to Stakeholder Working Group #15 (the prior 4.6 $MTCO_2e$ per service population target was calculated by the Bay Area Air Quality Management District by dividing the 2020 statewide GHG reduction target for the land use sector by the sum of the total statewide population and total statewide employment) (SCAQMD 2010b). The aforementioned working group has been inactive since 2011, and the SCAQMD has not formally adopted any GHG significance threshold for land use development projects. It should be noted that the SCAQMD interim thresholds were developed in conjunction with AB 32 and do not address post-2020 GHG reduction goals.

Threshold Approach

In the absence of quantitative GHG thresholds and/or a qualified GHG reduction plan for use by a project to tier or streamline its environmental analysis, CEQA provides that a lead agency could rely on regulatory compliance to show a less-than-significant GHG impact if the project complies with or exceeds those programs adopted by CARB or other state agencies. As discussed previously, the project is expected to be in operation by 2026. Beyond 2020, the state has established a GHG emissions reduction target for 2030 that has been codified in law through SB 32 and the 2017 Scoping Plan was adopted to meet this goal. Therefore, 2030 marks the next statutory statewide milestone target applicable to the project. The plan to achieve these statewide emission reduction goals is provided by the 2017 Scoping Plan (and future updates), and demonstrating consistency with the 2017 Scoping Plan will demonstrate that the project is doing its fair share toward achieving statewide reduction targets.

Overall, of the threshold options discussed above, the approach used in this analysis is compliance with regulatory programs, which is appropriate in addressing the project's post-2020 completion and operation. Under this threshold approach, the project's GHG emissions are evaluated for each major emission sector (e.g., energy, water, waste, mobile, and stationary) addressed in the 2017 Scoping Plan to determine whether the project's emissions would conflict with applicable sector-specific reduction targets and strategies identified in the 2017 Scoping Plan to meet the state's 2030 target under SB 32.

In the absence of any adopted quantitative threshold, and in accordance with case law and the CEQA Guidelines, the lead agency has determined that the project would not have a significant effect on the environment if the project is found to be consistent with applicable regulatory plans and policies to reduce GHG emissions, including the emissions reduction measures discussed within CARB's 2017 Scoping Plan, SCAG's 2020-2045 RTP/SCS, and the City's Sustainable City pLAn and Green Building Code.

Note that GHGs and climate change are exclusively cumulative impacts; there are no non-cumulative GHG emissions impacts from a climate change perspective (CAPCOA 2008). Therefore, in accordance with the scientific consensus regarding the cumulative nature of GHGs, the analysis herein analyzes the cumulative contribution of project-related GHG emissions.

SB 375 CEQA Streamlining

SB 375 provides CEQA streamlining benefits to transit priority projects (TPPs). A TPP is a project that meets the following four criteria (Public Resources Code [PRC] Section 21155 (a) and (b)):

- Is consistent with the use designation, density, building intensity, and applicable policies specified for the project area in SCAG's 2020-2045 RTP/SCS;
- Contains at least 50 percent residential use, based on total building square footage and, if the project contains between 26 percent and 50 percent nonresidential uses, a floor area ratio of not less than 0.75;
- Provides a minimum net density of at least 20 units per acre; and
- Is located within one-half mile of a major transit stop or high-quality transit corridor included in Connect SoCal.

Based on the analysis provided in Section 3 Sustainable Communities Environmental Assessment Criteria, the project would qualify as a TPP pursuant to the above criteria. In accordance with PRC § 21155.2(b), projects that qualify as TPPs may be reviewed through a SCEA. Furthermore, PRC § 21155.2(b) (1) states "An initial study shall be prepared to identify all significant or potentially significant impacts of the transit priority project, other than those which do not need to be reviewed pursuant to Section 21159.28 based on substantial evidence in light of the whole record."

Section 21159.28 of the PRC, which was added under SB 375 that was enacted in 2008, provides that residential and mixed-use projects that meet certain criteria are eligible for CEQA streamlining, provided that CARB has accepted the Metropolitan Planning Organization's (MPO's) determination that the project area's SCS achieves the GHG emission reduction targets established by CARB for the region. Specifically, the eligibility criteria for CEQA streamlining under PRC Section 21159.28 is as follows:

- The project must be either a residential or mixed-use residential project where at least 75 percent of the total building square footage of the project consists of residential use, or a project that is a Transit Priority Project (TPP) as defined in Section 21155.
- The project must be consistent with the use designation, density, building intensity, and applicable policies specified for the project area in a CARB-accepted SCS.
- The project must incorporate the mitigation measures required by an applicable prior environmental document.

As a TPP, the project would meet the criteria under Section 21159.28. Therefore, the project would qualify for SB 375 CEQA Streamlining whereby no environmental analysis is required of: (1) project-specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network or (2) growth-inducing impacts. As such, no analysis of GHG emission impacts resulting from passenger cars and light-

duty trucks associated with the project is required and were not included in the project's GHG emissions estimates.

Project Design Features

The following GHG-reducing PDF measure would be implemented by the project Applicant and agreed to by the City, would be incorporated into the project:

PDF-GHG-1:

- No more than 50 percent of the residential units shall have an indoor fireplace installed. This measure would reduce the consumption of natural gas and associated GHG emissions.

3.3.5 Project Impacts

Impact GHG-1: Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Short-term Construction

Construction of the project would result in temporary generation of GHG emissions related to off-road equipment use and on-road vehicle operations. As mentioned previously, GHG emissions are measured exclusively as cumulative impacts; therefore, the project's construction emissions are considered part of the total GHG emissions for the project lifecycle, which also include GHG emissions during operations. In accordance with SCAQMD guidance, the project's construction emissions are amortized over a 30-year period and the resulting annual emissions are combined with the project's annual operational GHG emissions.

Table 3.3-1 below shows GHG emissions related to construction of the project. As shown, construction of the project is estimated to generate a total of 3,563 $MTCO_2e$ over the construction period. When amortized over a 30-year period, the project's construction GHG emissions would be approximately 119 $MTCO_2e$ per year. Because construction emission sources would cease once construction is complete, construction emissions are considered short term.

Table 3.3-1. Estimated Short-term Construction Related GHG Emissions

Construction Years	Estimated GHG Emissions ($MTCO_2e$)[a]
2022	128
2023	1,193
2024	1,250
2025	993
Total Construction Emissions	**3,563**
Annual Construction Emissions (Amortized over 30 years)	*119*

Source: Emissions modeling by ICF using CalEEMod version 2016.3.2 (Appendix A).
[a] Totals may not add up due to rounding.

Long-term Operation

Area and indirect sources of GHG emissions associated with the project would primarily result from electricity and natural gas consumption, water transport (the energy used to deliver water to and from the project site), and solid waste generation. GHG emissions from electricity consumed on the project site would be generated off-site by fuel combustion at the electricity provider. GHG emissions from water transport are also indirect emissions resulting from the energy required to transport water from its source. In addition, the new residential and retail uses at the project site would also generate mobile source emissions from motor vehicle trips generated by residents and patrons.

The estimated operational GHG emissions resulting from the project are shown in Table 3.3-2. Additionally, in accordance with SCAQMD's recommendation, the project's amortized construction-related GHG emissions from Table 3.3-1 are added to the operational emissions estimate in order to determine the project's total annual GHG emissions.

Table 3.3-2. Estimated Annual Greenhouse Gas Emissions from Project Operation in 2026 (metric tons per year)

Emission Source	Estimated Annual GHG Emissions ($MTCO_2e$ per year)[a]
Area	86
Electricity[b]	664
Natural Gas	279
Mobile[c]	550
Stationary	51
Waste	27
Water/Wastewater	174
Total Annual Operational Emissions	**1,830**
Amortized Construction	119
Total Annual Project Emissions	**1,949**

Source: ICF Emissions Modeling (Appendix A).
[a] Totals may not add up due to rounding.
[b] Includes GHG emissions related to swimming pool, such as electricity and water consumption.
[c] As the project is a transit priority project that qualifies for SB 375 CEQA streamlining, the mobile-related GHG emissions presented in this table exclude those generated from passenger cars and light-duty trucks.

As shown in Table 3.3-2, the project's total annual GHG emissions would be approximately 1,949 $MTCO_2e$ per year.

As discussed in the Methodology section, above, the project's compliance with regulatory programs is used to analyze the significance of its potential impacts with respect to GHG emissions dating from its post-2020 completion and operation. Under this threshold approach, the project's GHG emissions are evaluated for consistency with each major emission sector (e.g., energy, water, waste, mobile, and stationary) addressed in the 2017 Scoping Plan to determine

whether the project's emissions would conflict with applicable sector-specific reduction targets and strategies identified in the 2017 Scoping Plan to meet the state's 2030 target under SB 32. The following sections present the sector-by-sector analysis of the project's potential GHG impacts.

Area Emissions

As shown in Table 3.3-2, emissions associated with area sources would be approximately 86 $MTCO_2e$ per year. The project's area sources include gasoline-powered landscaping equipment (e.g., trimmers, mowers). Area source emissions associated with landscaping equipment are based on CalEEMod's default assumptions, which estimates equipment usage based on square footage of new building space. The landscaping at the project site would include trees, shrubs, and ground cover vegetation as opposed to grassed lawn areas, thereby minimizing the routine use of mowers and other landscaping equipment. Additionally, the project's landscaped areas would be comprised of native and drought tolerant vegetation. This type of landscaping typically requires minimal pruning and maintenance, which also serves to minimize the use of fuel-powered landscaping equipment. The Scoping Plan does not include specific measures or 2030 emissions reduction requirements for landscaping equipment. While the inevitable transition away from fossil fuel equipment would be needed to achieve carbon neutrality by 2045, the Scoping Plan did not assume all electric landscaping equipment in their 2030 reduction analysis. Thus, because the use of trees and shrubs instead of grass lawn areas by the project would reduce landscaping emissions relative to buildings that largely incorporate grass, the project would be consistent with the Scoping Plan's overall goal of reducing emissions from fossil-fueled landscaping equipment.

Energy Emissions

GHGs are emitted directly from buildings through the combustion of any type of fuel (e.g., natural gas for cooking). GHGs can also be emitted indirectly from the generation of electricity. The Scoping Plan outlines strategies to reduce energy demand and fossil fuel use, while increasing energy efficiency and renewable energy generation. These strategies include transitioning to cleaner fuels, greater efficiency in existing buildings, and electrification of end uses in commercial sectors. As shown in Table 3.3-2, the project's building energy emissions would be approximately 943 $MTCO_2e$ per year.

OPR's 2018 *CEQA and Climate Change Advisory* recommends that a land use development project that "achieves applicable building energy efficiency standards, uses no natural gas or other fossil fuels, and includes Energy Star appliances where available, may be able to demonstrate a less-than-significant greenhouse gas impact associated with project operation." While OPR recommends new buildings do not consume fossil fuels, the 2017 Scoping Plan does not assume all electric buildings in their 2030 reduction analysis. Rather, the 2017 Scoping Plan assumes new gas appliances will be high efficiency.

The project would install energy-efficient HVAC and lighting systems, Energy Star appliances, and meet Cal Green and Title 24 Building Standards Code requirements. Though the project would allow for natural gas appliances and heating, all units would meet high efficiency standards,

consistent with the assumptions and emissions reduction requirements of the 2017 Scoping Plan for 2030. Thus, the project would be consistent with the 2017 Scoping Plan's overall goal of reducing building energy emissions to meet the state's 2030 GHG reduction target.

Mobile Source Emissions

GHG emissions associated with on-road mobile sources are generated from residents, workers, and visitors, and delivery vehicles traveling to and from the project site. As noted previously, because the project is a transit priority project that qualifies for CEQA streamlining under SB 375, no environmental analysis is required for the project's GHG emissions from passenger cars and light-duty trucks. As shown in Table 3.3-2, emissions from mobile sources (excluding passenger cars and light-duty trucks) would be approximately 550 $MTCO_2e$ per year. It should be noted that these emissions are for the opening year (2026) of the project, and that future annual emissions from mobile sources associated with the project would continue to decline as the state's transportation sector transitions to zero-emission and lower-emission vehicles.

As discussed above, CARB acknowledges that reductions in VMT are required to meet the state's long-term climate change goals. The project's urban infill location, with nearby access to public transportation in proximity to the project site, is consistent with state and local VMT reduction policies. The project site is near high frequency transit service options, including bus lines operated by Metro, LADOT (DASH and Commuter Express), and other municipal transit agencies, as well as the Metro A (Blue) Line, Metro E (Expo) Line, and the planned Los Angeles Streetcar.

Additionally, project-generated VMT per service population would meet the VMT thresholds the City developed to fulfill the requirements of SB 743. Because a reduction in GHG emissions from passenger vehicles is one of the objectives of SB 743 and one of the overarching strategies of the 2017 Scoping Plan, operation of the project would not conflict with the statewide GHG target for 2030 mandated by SB 32.

The project would provide bicycle parking spaces at the project site that satisfies LAMC requirements to support bicycling by its employees, residents, and visitors. Thus, the project's location in an urban infill site within a high-quality transit area (HQTA), as defined by SCAG, and a TPA along with its mix of land uses would encourage the use of transit, walking and bicycling. As such the project would reduce VMT from automobiles and minimize GHG emissions associated with mobile emissions. Furthermore, the project would provide 131 Electric Vehicle Ready Parking Spaces including 44 Electric Vehicle Charging Stations. The provision of these spaces at the project site would further reduce mobile GHG emissions. Overall, the project would be consistent with the state's goal of reducing VMT.

Land Use Emissions

The existing landscaping on the project site is limited and consists of three Canary Island pines occur southeast of the project site along South Hill Street and three goldenrain trees along the northeast boundary on 11th Street, none of which is a protected species under the LAMC. As part of the project, one of the trees would be removed, to be replaced with two new street trees, as part of the provision of120 new trees on the project site. Additionally, the project site would also plant other native and drought-tolerant vegetation such as shrubs and ground cover at the

podium and roof terrace. The increase in trees and vegetation at the project site would increase carbon sequestration over existing conditions. While there are no relevant measures in the Scoping Plan or explicit regulatory requirements related to tree or vegetation planting, the Scoping Plan does discuss the importance of maintaining natural and working lands, which also encompasses green spaces in urban and built environments, to serve as a carbon sink. Additionally, the Scoping Plan notes that the creation and management of parks and other green space in urban areas, including expansion of the existing urban tree canopy, would help to reduce GHG emissions. Thus, the additional trees and native and drought-tolerant vegetation by the project would be consistent with the Scoping Plan's overall goal of avoiding losses in carbon sequestration.

Waste Emissions

Solid waste may be disposed in landfills or diverted for recycling, composting, or reuse. GHG emissions from landfills are generated through anaerobic breakdown of material. The Scoping Plan aims to reduce waste emissions by diverting waste away from landfills through waste reduction, re-use, composting, and material recovery. In addition, AB 341 requires mandatory recycling for certain commercial businesses, including a multi-family residential dwelling of five units or more.

As shown in Table 3.3-2, emissions associated with waste would be approximately 27 $MTCO_2e$ per year. As of February 1, 2018, a new waste and recycling system for all businesses and large apartment complexes in the City referred to as "recycLA" was implemented by the LA Sanitation, which is responsible in overseeing the collection and recycling of waste generated by residential, commercial, and industrial uses in the City and surrounding communities. Under the recycLA program, the City is divided into 11 different service zones and waste collection contracts are awarded to seven different companies to collect trash at businesses, apartment buildings, and condos in those areas. Part of the services that recycLA will offer to businesses and large multi-family customers include blue bins for recycling and organics recycling. The implementation of this program aims to reduce landfill disposal by one million tons per year by 2025 and reduce waste by 65 percent in all 11 of the City's service zones, with the goal of achieving zero waste by 2050. Thus, upon its completion and operation in 2026, the project would be served by this solid waste collection and recycling service, which is consistent with the Scoping Plan's overall goal of reducing waste emissions and its specific strategy to avoid landfill methane emissions by reducing the disposal of landfilled waste and organics through programs such as edible food recovery programs. In addition, these features would support and comply with AB 341's mandatory recycling requirement and support the state's recycling goal. With respect to construction and demolition debris, the 2019 CALGreen Code, as amended in the LAMC, requires that at least 65 percent by weight of job site debris generated by most types of building project types be recycled, reused, or otherwise diverted from landfill disposal.

Water and Wastewater Emissions

Indirect GHG emissions result from the production of electricity used to convey, treat, and distribute water and wastewater. The amount of electricity required to convey, treat, and distribute water depends on the volume of water as well as the sources of water. The Scoping Plan outlines

objectives and goals to reduce GHGs in the water sector, including using and reusing water more efficiently through greater water conservation, drought tolerant landscaping, stormwater capture, and water recycling. Regulations have further targeted water supply and water conservation (e.g., SB X7-7) through building and landscaping efficiency (e.g., Title 24).

As shown in Table 3.3-2, the annual emissions associated with water use would be approximately 174 $MTCO_2e$ during the project's opening year. The project would incorporate water efficiency measures in compliance with the applicable requirements of the California Green Building Standards Code and the City of Los Angeles Green Building Code, which incorporates by reference the CALGreen Code. The project's design would utilize low-flow plumbing fixtures that at a minimum comply with the flush volumes and gallons per minute water rates in the CALGreen Code and City requirements that decreases indoor water use. Outdoor water conservation measures include the installation of water-efficient irrigation systems and the planting of water-efficient landscaping consisting of native and drought-tolerant vegetation to minimize irrigation requirements. Thus, the indoor and outdoor water conservation measures of the project serve to support ongoing regulatory programs (e.g., SB X7-7, Title 24) that aim to reduce GHG emissions associated with conveying water and distributing water to ultimately achieve climate neutrality.

Conclusion

As discussed above, the project's sustainability measures are consistent with applicable polices from the 2017 Scoping Plan and regulatory programs for the area, energy, water, waste, and land use sectors. The project's consistency with other statutes and policies related to GHG reduction efforts identified in the 2017 Scoping Plan are identified under Impact GHG-2. The project would also result in a net increase in trees at the project site along with other native and drought-tolerant vegetation over existing conditions, and therefore would be consistent with Scoping Plan's overall goal of avoiding losses in carbon sequestration. The location of the project in an urban infill site in proximity to multiple transit options along with its mixed-use development of residential, TORS units, and restaurant uses would also result in a reduction in VMT that is consistent with the Scoping Plan's long-term climate change goals. Overall, GHG emissions from construction and operation of the project would have a less-than-significant impact on the environment.

Impact GHG-2: Would the proposed Project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

SCAG 2020-2045 RTP/SCS

The 2020-2045 RTP/SCS is a long-range planning document that balances future mobility and housing needs with economic, environmental, and public health goals in the SCAG region. One of the key strategies of the plan is to integrate land use, housing, and transportation planning to ensure sustainable regional growth. Goals and policies included in the 2020-2045 RTP/SCS to reduce GHG emissions consist of adding density in proximity to transit stations, mixed-use development and encouraging active transportation (i.e., non-motorized transportation such as bicycling). SCAG's 2020-2045 RTP/SCS complies with SB 375, which requires an SCS to be prepared as part of the RTP by each MPO that outlines policies to reduce per capita GHG

emissions from automobiles and light trucks. The SCS policies include a mix of strategies that encourage compact growth patterns, mixed-use design, alternative transportation, transit, mobility and access, network expansion, and transportation investment. Table 3.3-3 shows the project's consistency with the 2020-2045 RTP/SCS goals and guiding policies.

Table 3.3-3. Consistency of Project with SCAG 2020-2045 RTP/SCS

Applicable Targets	Project Consistency Assessment
2020-2045 RTP/SCS Goals	
1. Encourage regional economic prosperity and global competitiveness	**Not applicable.** SCAG and its member agencies are responsible for aligning RTP/SCS investments and polices with improving regional economic prosperity and competitiveness. The project would not conflict with this goal.
2. Improve mobility, accessibility, reliability, and travel safety for people and goods	**Consistent.** The project site is located in an active, mixed-use area that offers an array of transportation choices, with ready access to transit infrastructure and employment. The project includes new residential, TORS, and commercial uses in the diverse South Park neighborhood of downtown Los Angeles. The project site is located in a highly walkable area surrounded by a diverse mix of land uses, including high- and mid-rise office buildings, residential buildings, hotels, retail and restaurant uses, museums, night clubs, theaters, cultural districts, warehouses, and light industrial uses. The project is also located in an identified Transit Priority near a number of transit opportunities including the nearby Metro Rail Pico Station (less than 0.3 miles from the project site), the 7th/Metro Center Station (approximately 0.7 mile from the project site) and the Metro Pershing Square Station (approximately 0.8 miles from the project site). The project site is also served by multiple bus lines via stations at Olive Street/11th Street (serving the 14/37, 70, 71, 76, 78/79/378, and 96 lines), Hill Street/12th Street (serving the 83, 90/91, 94, Commuter Express 409, and Dash downtown D lines), and Broadway/11th Street (serving the 2/302, 4, and 745 lines). The closest Metro bike share stations are located at 12th Street and Hill Street (129 West 12th Street) and at Grand Avenue and 14th Street (1375 South Grand Avenue). The project site is also immediately adjacent to the future downtown LA Streetcar route along 11th Street. In addition, near the project site, Tier 1 bike lanes are provided along 11th street, northwest of Broadway. Tier 3 bike lanes are provided on South Hill Street, north of the 10 freeway and south of 4th street.

Applicable Targets	Project Consistency Assessment
	The project's close location near transit enables residents and visitors to the project to reach surrounding services, jobs, and other destinations with relative ease and within a reasonable time, using a diverse array of transportation choices. This supports the goal of increased mobility, accessibility, reliability, and travel safety. The project would support public safety for travel near the project site by providing new lighting within the project site and around the perimeter including new building identification lighting, commercial accent lighting, wayfinding, balcony lighting, and security lighting. The project would incorporate street lighting along South Hill Street and West 11th Street, with street lighting on 11th Street to match the recently installed lights on 11th Street corridor for the MyFig project. Pedestrian areas including pathways and entryways into the project would be well-lit for security and ground-mounted. Pedestrian access to the project would be distinct from vehicle driveways and the project would not mix pedestrian and automobile traffic to ensure pedestrian safety. The project would be subject to site Plan review to ensure vehicle and pedestrian safety throughout the project. Therefore, the project is consistent with this goal.
3. Enhance the preservation, security, and resilience of the regional transportation system	**Consistent.** The project would support the regional transit system by encouraging increased transit use, as the project would be located in close proximity to the Metro Rail Pico Station and the 7th/Metro Center Station, and numerous bus lines, thereby contributing to increased ridership, preservation, and resilience of the City's multimodal transportation system in the region**.**
4. Increase person and goods movement and travel choices within the transportation system	**Consistent.** The project would encourage the use of mass transit, walking and bicycling, as the project would locate mixed-use residential, TORS, and commercial development on a project site that is located near numerous bus lines, the Metro Rail Pico Station, 7th/Metro Center Station, and bicycle lanes. Since the project would develop residential uses within walking distance of existing bus lines and light rail transit stations, and would also provide long-term and short-term bicycle parking, the project would provide opportunities for residents and visitors to use public transit for work trips, and walk to retail businesses near the project area. Thus, the project would encourage the utilization of mass transit as a mode of transportation to and from the project site area and contribute to increasing person and travel choices within the transportation system. The project would be consistent with this

Applicable Targets	Project Consistency Assessment
	goal.
5. Reduce greenhouse gas emissions and improve air quality	**Consistent.** The project would be consistent with this Goal by facilitating the use of alternative modes of transportation, which would aid in reducing car trips and positively impact air quality and reduce greenhouse gas emissions. Additionally, project-generated VMT per service population would meet the VMT thresholds the City developed to fulfill the requirements of SB 743. Because a reduction in GHG emissions from passenger vehicles is one of the objectives of SB 743 and one of the overarching strategies of the 2017 Scoping Plan, operation of the project would not conflict with the statewide GHG target for 2030 mandated by SB 32. The project would provide 131 Electric Vehicle Ready Parking Spaces including 44 Electric Vehicle Charging Stations. The project includes bicycle parking spaces pursuant to the LAMC for the residential, TORS,, and commercial uses of the project. The project would encourage transit, pedestrian, and bicycle travel by incorporating a mixture of land uses area surrounded by a diverse mix of land uses including residential, commercial, and service uses. The project would be within close proximity to multiple transit options. Furthermore, the project would include pedestrian-friendly landscaping and design, streetscape improvements, and street level commercial uses that would enliven the pedestrian experience. The project would also include a number of sustainability features that would reduce greenhouse gas emissions and improve air quality, including high efficiency heating, ventilation, and air conditioning (HVAC) equipment consisting of water source heat pumps; high efficiency glazing, external shading, enhanced insulation, enhanced façade design to minimize infiltration, high-efficiency condensing boilers, and combination of instantaneous water heaters and centralized water heaters; compartmentalized design and interior barriers to limit stack effect through building and resultant infiltration of un-conditioned air; light-emitting diode (LED) lighting; lighting controls; Energy Star–labeled appliances; variable flow pool pumps; and commissioning of all mechanical, electrical, and plumbing systems.
6. Support healthy and equitable communities	Consistent. The project would be consistent with this Goal by facilitating the use of alternative modes of transportation and a diversity of housing options, which would support healthy and equitable communities.

Applicable Targets	Project Consistency Assessment
	The project site is located in the Central City Community Plan area. According to the City data contained in the City of Los Angeles Interactive Health Atlas, the Central City Community Plan area has a walkability score of 10.3, the highest walkability score in the City. As the Health Atlas only tracks data at the Community Plan level, walkability data was also gathered for the project site specifically. According to Walkscore.com, the project site is rated 92 for walk score, which means daily errands can be accomplished on foot and many residents are able to forgo owning a car (Walk Score 2021). The project site's bike score is rated "Very Bikeable" with a score of 87, which means the area is good for biking based on bike lanes and trails, hills, and road connectivity (Walk Score 2021). The project site is also rated a "Rider's Paradise" for transit score with a score of 100, which means the project site is served by world-class public transportation. In addition, the City of Los Angeles adopted the Health and Wellness General Plan Element (Plan for a Healthy Los Angeles) in March 2015 that provides a high-level policy vision, along with goals and objectives to elevate health as a priority for the City's future growth and development (LA City Planning 2015). Some of the land use goals include accommodating a diversity of land uses, encouraging development near mobility options, supporting transit-oriented development, and emphasizing bicycle mobility. The project would encourage pedestrian and bicycle travel by developing new residential and commercial uses on-site within a mixed-use development in an urban area surrounded by a diverse mix of land uses including residential, commercial, industrial, and service uses. The project would be within close proximity to multiple transit options. Furthermore, the project would include pedestrian-friendly landscaping and design, streetscape improvements, and street level commercial uses that would enliven the pedestrian experience for the entire community.
7. Adapt to a changing climate and support an integrated regional development pattern and transportation network	**Consistent.** The project would be consistent with this Goal by facilitating the use of alternative modes of transportation, which would aid in adapting to a changing climate and supporting an integrated regional development pattern and transportation network. The project encourages increased transit use, as the project would be located in close proximity to the Metro Rail Pico Station and the 7th/Metro Center Station, thereby contributing to

Applicable Targets	Project Consistency Assessment
	increased ridership of the City's multimodal transportation network. The project would provide bicycle parking spaces pursuant to the LAMC for the residential, TORS and commercial uses of the project. The project would encourage pedestrian travel by incorporating new residential and commercial uses on-site within a mixed-use development as well as locating the project in an urban area surrounded by a diverse mix of land uses including residential, commercial, industrial, and service uses. The project would also comply with the California Title 24 Building Standards Code and CALGreen Code. Energy savings and a sustainable design would be incorporated throughout the project. The project would emphasize energy conservation, which would be achieved through the use of energy-efficient HVAC and lighting systems.
8. Leverage new transportation technologies and data-driven solutions that result in more efficient travel	**Not Applicable**. This goal is directed toward SCAG to result in more efficient travel. Nevertheless, the project would provide 131 Electric Vehicle Ready Parking Spaces including 44 Electric Vehicle Charging Stations.
9. Encourage development of diverse housing types in areas that are supported by multiple transportation options	**Consistent.** The project is a mixed-use project would include 319 new condominium residential units of various sizes and for different household types. It is anticipated that the residential unit count would be composed of 24 studio units, 144 one-bedroom units, 127 two-bedroom units, 20 three-bedroom units, and 4 penthouse units. It would place this housing near jobs, services, and transit and provide ample bicycle parking and pedestrian infrastructure to incentivize increased biking and walking. The project also encourages increased transit use, as the project would be located in close proximity to close proximity to the Metro Rail Pico Station and the 7th/Metro Center Station, and multiple bus routes, thereby contributing to increased ridership of the City's multimodal transportation system in the region and transportation options for the users of the project site.
10. Promote conservation of natural and agricultural lands and restoration of habitats	**Consistent.** The project would be consistent with this Goal because the project does not propose the conversion of any natural or agricultural lands to urban use. The project is located in an urban, infill site, and there are no natural or agricultural lands on or near the project site.
2020-2045 RTP/SCS Guiding Principles	
1. Base transportation investments on adopted regional performance indicators and MAP-21/FAST Act regional targets	**Not Applicable.** This principle is directed toward SCAG in allocating transportation investments. This principle does not apply to the individual development projects such as the project, and no

Applicable Targets	Project Consistency Assessment
	further analysis is required**.**
2. Place high priority for transportation funding in the region on projects and programs that improve mobility, accessibility, reliability, and safety, and that preserve the existing transportation system	**Not Applicable.** This principle is directed towards SCAG in allocating transportation system funding. Nevertheless, the project would contribute to a safe, well maintained, and efficient multimodal transportation system**.**
3. Assure that land use and growth strategies recognize local input, promote sustainable transportation options, and support equitable and adaptable communities	**Not Applicable.** This principle is directed towards SCAG and the City of Los Angeles and does not apply to individual projects such as the project. Nevertheless, the project site's urban infill location near mass transit and proximity to services, commercial uses, and employment opportunities promotes a pedestrian- friendly environment and supports equitable and adaptable communities. The location of the project site also promotes the use of a variety of transportation options, which includes walking and the use of public transportation.
4. Encourage RTP/SCS investments and strategies that collectively result in reduced non-recurrent congestion and demand for single occupancy vehicle use, by leveraging new transportation technologies and expanding travel choices	**Not Applicable.** The project would not involve RTP/SCS investments, but would place housing and employment options near multiple public transportation options and non-motorized transportation infrastructure, which would reduce demand for single occupancy vehicle use and leverage past and future RTP/SCS investments. The project would be located within a HQTA and a TPA, and, as such, would support public transportation and other alternative methods of transportation that reduce single-occupancy vehicle use.
5. Encourage transportation investments that will result in improved air quality and public health, and reduced greenhouse gas emissions	**Consistent.** The project would increase housing options in Downtown LA and provide employment opportunities near multiple public transit options. The project's proximity to transit would reduce vehicle trips and associated regional and localized air pollutant and GHG emissions, which would support the goals of public health.
6. Monitor progress on all aspects of the Plan, including the timely implementation of projects, programs, and strategies	**Not applicable.** This principle is directed toward SCAG and the City of Los Angeles and not does apply to individual projects such as the project.
7. Regionally, transportation investments should reflect best-known science regarding climate change vulnerability, in order to design for long term resilience	**Not applicable.** SCAG and its member agencies are responsible for transportation investments and ensuring that they reflect the best-known science regarding climate change vulnerability. The project would not conflict with this policy.
Focus Growth Near Destinations & Mobility Options Strategy 1. Emphasize land use patterns that facilitate multimodal access to work, educational and other destinations	**Consistent**. As stated above, the project would provide commercial uses and residential units in a HQTA and a TPA. The project would place housing near jobs and transit and provide bicycle parking and pedestrian infrastructure to incentivize increased biking and walking. The project would include bicycle parking spaces for the residential, TORS, and commercial uses of the project, in

Applicable Targets	Project Consistency Assessment
	accordance with LAMC requirements. The project also encourages increased transit use, as the project would be located in close proximity to the Metro Rail Pico Station and the 7th/Metro Center Station, thereby contributing to increased ridership of the City's multimodal transportation system in the region and transportation options for the users of the project site.
Focus Growth Near Destinations & Mobility Options Strategy 2. Focus on a regional jobs/housing balance to reduce commute times and distances and expand job opportunities near transit and along center-focused main streets	**Consistent.** As stated above, the project would provide new jobs and housing through the introduction of TORS, commercial, and residential uses in a HQTA and a TPA.The project site is in close proximity to a network of regional transportation facilities providing connectivity to the greater Los Angeles County. The project site is approximately 0.3 miles northeast of the Metro Rail Pico Station, approximately 0.7 miles southeast of the 7th/Metro Center Station, and approximately 0.8 miles south of the Metro Pershing Square Station. The project site is also served by multiple bus lines via stations at Olive Street/11th Street (serving the 14/37, 70, 71, 76, 78/79/378, and 96 lines), Hill Street/12th Street (serving the 83, 90/91, 94, Commuter Express 409, and Dash downtown D lines), and Broadway/11th Street (serving the 2/302, 4, and 745 lines). The project site is also immediately adjacent to the future downtown LA Streetcar route along 11th Street. The downtown LA Streetcar is a planned 4-mile route that would provide connections to downtown neighborhoods, destinations, and regional transit options. As the project site is surrounded by various land uses, including residences, hotels, offices, restaurants, retail uses, parking structures, and surface parking lots, it is likely that addition to transit, visitors, workers, and residents would also walk and bicycle to and from the project to destinations. The project would support this by providing bicycle parking and providing enhanced pedestrian amenities around the project site.
Focus Growth Near Destinations & Mobility Options Strategy 3. Plan for growth near transit investments and support implementation of first/last mile strategies	**Consistent**. As stated above, the project would provide commercial and residential uses in a HQTA and a TPA. The project site is in close proximity to a network of existing regional transit systems providing connectivity to the greater Los Angeles County. The project site is approximately 0.3 miles northeast of the Metro Rail Pico Station, approximately 0.7 miles southeast of the 7th/Metro Center Station, and approximately 0.8 miles south of the Metro Pershing Square Station. In addition, the project would provide bicycle parking and pedestrian infrastructure to incentivize increased biking and walking for the first/last mile. The

Applicable Targets	Project Consistency Assessment
	project site is also immediately adjacent to the future planned transportation investments including the downtown LA Streetcar route. Also, currently under construction, is the Metro Regional Connector Project, a 1.9-mile alignment which will extend from the Little Tokyo/Arts District Station to the 7th Street/Metro Center Station in downtown Los Angeles.
Focus Growth Near Destinations & Mobility Options Strategy 4. Promote the redevelopment of underperforming retail developments and other outmoded nonresidential uses	**Consistent**. The project would remove an existing, vacant, warehouse uses and create substantial new investment on the project site by creating new and active uses including 3,429 sf of ground floor commercial uses and up to 160 new TORS rooms.
Focus Growth Near Destinations & Mobility Options Strategy 5. Prioritize infill and redevelopment of underutilized land to accommodate new growth, increase amenities and connectivity in existing neighborhoods	**Consistent**. The project would remove an existing, underutilized, vacant, warehouse and redevelop the site with up to 319 multi-family residential units, up to 3,429 sf of ground floor commercial uses, up to 160 TORS units. Furthermore, the project would include pedestrian-friendly landscaping and design, streetscape improvements, and street level commercial uses that would enliven the pedestrian experience and increase connectivity for the entire community.
Focus Growth Near Destinations & Mobility Options Strategy 6. Encourage design and transportation options that reduce the reliance on and number of solo car trips (this could include mixed uses or locating and orienting close to existing destinations)	**Consistent**. The project would facilitate the use of alternative modes of transportation, which would aid in reducing the number of solo car trips. The project includes bicycle parking spaces for the residential, TORS, and commercial uses of the project. The project would encourage pedestrian travel by incorporating new residential and commercial uses on-site within a mixed-use development as well as locating the project in an urban area surrounded by a diverse mix of land uses including residential, commercial, industrial, and service uses. The project would be within close proximity to multiple transit options. Furthermore, the project would include pedestrian-friendly landscaping and design, streetscape improvements, and street level commercial uses that would enliven the pedestrian experience.
Focus Growth Near Destinations & Mobility Options Strategy 7. Identify ways to "right size" parking requirements and promote alternative parking strategies (e.g., shared parking or smart parking)	**Consistent**. The project would include up to 436 total vehicle parking spaces, including 325 residential parking spaces and 111 TORS parking spaces. The project would provide parking pursuant to the Los Angeles Municipal Code (LAMC) Additionally, the project would provide 131 Electric Vehicle Ready Parking Spaces including 44 Electric Vehicle Charging Stations. The project would also provide bike parking in compliance with the LAMC requirements.
Promote Diverse Housing Choices	**Consistent**. The project is an infill development proposed on an urban infill site that does not

Applicable Targets	Project Consistency Assessment
Strategy 1. Preserve and rehabilitate affordable housing and prevent displacement	contain any existing housing units.
Promote Diverse Housing Choices Strategy 2. Identify funding opportunities for new workforce and affordable housing development	**Not Applicable.** This strategy is directed toward SCAG and does not apply to individual projects such as the project. Nevertheless, the project would be providing 319 new condominium housing units, in in a variety of sizes and price levels, in an urbanized area within the City of Los Angeles.
Promote Diverse Housing Choices Strategy 3. Create incentives and reduce regulatory barriers for building context-sensitive accessory dwelling units to increase housing supply	**Not Applicable**. This strategy is directed toward SCAG and does not apply to individual projects such as the project.
Promote Diverse Housing Choices Strategy 4. Provide support to local jurisdictions to streamline and lessen barriers to housing development that supports reduction of greenhouse gas emissions	**Consistent**. This strategy is directed toward SCAG and does not apply to individual projects such as the project. However, the project site's urban infill location near mass transit and proximity to services, commercial uses, and employment opportunities promotes a pedestrian- friendly environment and supports reduced greenhouse gas emissions. The location of the project site also promotes the use of a variety of transportation options, which includes walking and the use of public transportation, which also supports reduced greenhouse gas emissions.
Leverage Technology Innovations Strategy 1. Promote low emission technologies such as neighborhood electric vehicles, shared ride hailing, car sharing, bike sharing and scooters by providing supportive and safe infrastructure such as dedicated lanes, charging and parking/drop-off space	**Consistent**. This strategy is directed toward SCAG and does not apply to individual projects such as the project. However, the project would provide 131 Electric Vehicle Ready Parking Spaces including 44 Electric Vehicle Charging Stations. The project would also provide bike parking in compliance with the LAMC requirements.
Leverage Technology Innovations Strategy 2. Improve access to services through technology—such as telework and telemedicine as well as other incentives such as a "mobility wallet," an app-based system for storing transit and other multi-modal payments	**Not Applicable**. This strategy is directed toward SCAG and does not apply to individual projects such as the project.
Leverage Technology Innovations Strategy 3. Identify ways to incorporate "micro-power grids" in communities, for example solar energy, hydrogen fuel cell power storage and power generation	**Consistent**. This strategy is directed towards SCAG and does not apply to individual projects such as the project. However, the project would include a number of energy conservation and efficiency measures such as high efficiency HVAC equipment consisting of water source heat pumps; high efficiency glazing, external shading, enhanced insulation, enhanced façade design to minimize infiltration, high-efficiency condensing boilers, and combination of instantaneous water heaters and centralized water heaters; and energy Star–labeled equipment. The project would designate 15 percent of the building's roof area as a zone for solar use. .

Applicable Targets	Project Consistency Assessment
Support Implementation of Sustainability Policies Strategy 1. Pursue funding opportunities to support local sustainable development implementation projects that reduce greenhouse gas emissions	**Consistent**. This strategy is directed toward SCAG and does not apply to individual projects such as the project. However, the project site's urban infill location near mass transit and proximity to services, commercial uses, and employment opportunities promotes a pedestrian- friendly environment and supports reduced greenhouse gas emissions. The location of the project site also promotes the use of a variety of transportation options, which includes walking and the use of public transportation, which also supports reduced greenhouse gas emissions.
Support Implementation of Sustainability Policies Strategy 2. Support statewide legislation that reduces barriers to new construction and that incentivizes development near transit corridors and stations	**Consistent**. This strategy is directed toward SCAG and does not apply to individual projects such as the project. However, the project would provide commercial and residential uses in a HQTA and a TPA. The project site is in close proximity to a network of existing and planned regional transit corridors, bus routes, and stations providing connectivity to the greater Los Angeles County.
Support Implementation of Sustainability Policies Strategy 3. Support local jurisdictions in the establishment of Enhanced Infrastructure Financing Districts (EIFDs), Community Revitalization and Investment Authorities (CRIAs), or other tax increment or value capture tools to finance sustainable infrastructure and development projects, including parks and open space	**Not Applicable**. This strategy is directed toward SCAG and does not apply to individual projects such as the project.
Support Implementation of Sustainability Policies Strategy 4. Work with local jurisdictions/communities to identify opportunities and assess barriers to implement sustainability strategies	Consistent. This strategy is directed toward SCAG and does not apply to individual projects such as the project. However, the project would include a number of sustainability measures including energy efficiency, water efficiency, material conservation, and resource efficiency.
Support Implementation of Sustainability Policies Strategy 5. Enhance partnerships with other planning organizations to promote resources and best practices in the SCAG region	**Not Applicable**. This strategy is directed towards SCAG and does not apply to individual projects such as the project.
Support Implementation of Sustainability Policies Strategy 6. Continue to support long range planning efforts by local jurisdictions	**Not Applicable**. This strategy is directed toward SCAG and does not apply to individual projects such as the project.
Support Implementation of Sustainability Policies Strategy 7. Provide educational opportunities to local decisions makers and staff on new tools, best practices and policies related to implementing the Sustainable Communities Strategy	**Not Applicable**. This strategy is directed toward SCAG and does not apply to individual projects such as the project.

Applicable Targets	Project Consistency Assessment
Promote a Green Region Strategy 1. Support development of local climate adaptation and hazard mitigation plans, as well as project implementation that improves community resiliency to climate change and natural hazards	**Consistent**. This strategy is directed toward SCAG and does not apply to individual projects such as the project. However, the project would facilitate the use of alternative modes of transportation, which would aid in local climate adaptation and community resiliency. The project encourages increased transit use, as the project would be located in close proximity to the Metro Pico Station and the 7th/Metro Center Station, thereby contributing to increased ridership of the City's multimodal transportation network. The project includes bicycle parking spaces for the residential, TORS, and commercial uses of the project. The project would encourage pedestrian travel by incorporating new residential and commercial uses on-site within a mixed-use development as well as locating the project in an urban area surrounded by a diverse mix of land uses including residential, commercial, industrial, and service uses.
Promote a Green Region Strategy 2. Support local policies for renewable energy production, reduction of urban heat islands and carbon sequestration	**Consistent.** This strategy is directed toward SCAG and does not apply to individual projects such as the project. However, the project would be required to comply with California Building Code Title 24. Energy saving and sustainable design would be incorporated throughout the project. The project would emphasize energy and water conservation, which would be achieved through the use of energy efficient HVAC and lighting systems, and energy star appliances, and low flow plumbing fixtures. The project would provide 131 Electric Vehicle Ready Parking Spaces including 44 Electric Vehicle Charging Stations. In addition, the project would be required to include one tree for every four dwelling units, totaling 120 trees. The project would also include a landscaped amenity deck on level five and a landscaped amenity roof deck on level 40, both of which would include landscaping. At each corner of the building, on the roof deck, the project would include four distinctive circular crown rooftop elements that would provide cascading landscaping.
Promote a Green Region Strategy 3. Integrate local food production into the regional landscape	**Not Applicable**. This strategy is directed toward SCAG and does not apply to individual projects such as the project.
Promote a Green Region Strategy 4. Promote more resource efficient development focused on conservation, recycling, and reclamation	**Consistent**. This strategy is directed toward SCAG and does not apply to individual projects such as the project. However, the project would reduce single-passenger vehicle trips and encourage and support transit, which would reduce transportation energy demand. In addition, the project would be required to comply with California Building Code Title 24. Energy saving and sustainable design would be incorporated throughout the project. The project

Applicable Targets	Project Consistency Assessment
	would emphasize energy and water conservation, which would be achieved through the use of energy efficient HVAC and lighting systems, and energy star appliances, and low flow plumbing fixtures. The project would provide 131 Electric Vehicle Ready Parking Spaces including 44 Electric Vehicle Charging Stations. The project would include trash collection that will facilitate separation of organic, recyclable, and non-recyclable trash streams, and diversion of at least 65 percent of construction and demolition waste from landfills.
Promote a Green Region Strategy 5. Preserve, enhance, and restore regional wildlife connectivity	**Not Applicable**. This strategy is directed toward SCAG and does not apply to individual projects such as the project.
Promote a Green Region Strategy 6. Reduce consumption of resource areas, including agricultural land	**Consistent**. This strategy is directed towards SCAG and does not apply to individual projects such as the project. However, the project does not propose the conversation of any natural or agricultural lands to urban use. The project is located in an urban, infill site, and there are no natural or agricultural lands.
Promote a Green Region Strategy 7. Identify ways to improve access to public park space	**Consistent**. This strategy is directed towards SCAG and does not apply to individual projects such as the project. However, the project includes 55,706 sf of open space and would fulfill this through a combination of common indoor open space, common outdoor open space, and private balconies.

Implementation of the RTP/SCS is intended to improve the efficiency of the transportation system and achieve a variety of land use types throughout the SCAG region that meet market demands in a balanced and sustainable manner. Some of the primary land use strategies discussed in the 2020-2045 RTP/SCS include focusing new growth around transit, growth around "Priority Growth Areas," and providing more options for short trips. Priority Growth Areas identified in the 2020-2045 RTP/SCS include Job Centers, TPAs, HQTAs, Neighborhood Mobility Areas, Livable Corridors and Spheres of Influence. Altogether, these areas account for only 4 percent of region's total land area, but implementation of SCAG's recommended growth strategies will help these areas accommodate 64 percent of forecasted household growth and 74 percent of forecasted employment growth between 2016 and 2045.

The project would be consistent with the land use strategies of the 2020-2045 RTP/SCS and the goals of SB 375, including the reduction of VMT and the corresponding mobile GHG emissions. As a transit priority project under SB 375 that is located in a HQTA, the project locates a mixed-use development consisting of residential, TORS, and restaurant uses near multiple public transit options. The urban infill location of the project site is also surrounded by a diverse mixture of land uses including residential, office, commercial, industrial, and service uses. The diversity of land uses in proximity to the project site and the mix of uses associated with the project would reduce vehicle trips and VMT by encouraging walking and non-automotive forms of transportation, which would result in corresponding reductions in mobile GHG emissions. Thus, implementation of the project would help accommodate forecasted growth within the SCAG region while also supporting the

reduction of per capita GHG emissions from passenger vehicles consistent with the 2020-2045 RTP/SCS. The project would also incorporate energy and water conservation features to meet the CALGreen Code. Overall, the project would be consistent with the goals of SB 375 and the 2020-2045 RTP/SCS.

AB 32, SB 32, and 2017 Scoping Plan

AB 32 and SB 32 outline the state's GHG emissions reduction targets for 2020 and 2030, respectively. In 2008 and 2014, CARB adopted the Scoping Plan and First Update, respectively, as a framework for achieving the emissions reduction targets in AB 32. The Scoping Plan and First Update outline a series of technologically feasible and cost-effective measures to reduce statewide GHG emissions. CARB adopted the 2017 Scoping Plan in November 2017 as a framework to achieve the 2030 GHG reduction goal described in SB 32. As discussed previously, because the project is expected to be in operation by 2026, the statewide GHG emissions reduction target for 2030 is the statutory statewide milestone target that is applicable to the project.

Based on CARB's 2017 Scoping Plan, many of the reductions needed to meet the 2030 target will come from state regulations, including cap-and-trade, the requirement for increased renewable energy sources in California's energy supply, updates to Title 24, and increased emission reduction requirements for mobile sources. The 2017 Scoping Plan indicates that reductions would need to come in the form of changes pertaining to vehicle emissions and mileage standards, changes pertaining to sources of electricity and increased energy efficiency at existing facilities, and state and local plans, policies, or regulations that will lower GHG emissions relative to business-as-usual conditions. The 2017 Scoping Plan carries forward GHG reduction measures from the First Update, as well as new potential measures to help achieve the state's 2030 target across all sectors of the California economy, including transportation, energy, and industry.

As discussed above under Impact GHG-1, the project would be consistent with the applicable policies from the 2017 Scoping Plan and regulatory programs for the area, energy, mobile, water, waste, and land use sectors. The project would be designed to meet the CALGreen Code and would emphasize energy and water conservation through the use of energy efficient HVAC and lighting systems, energy star appliances, and low flow plumbing fixtures. The project would provide 131 Electric Vehicle Ready Parking Spaces including 44 Electric Vehicle Charging Stations. The project would be consistent with the Scoping Plan's overall goal of avoiding losses in carbon sequestration by planting a net increase of 119 trees at the project site over existing conditions along with other native and drought-tolerant vegetation. By locating its mixed-use residential, TORS, restaurant, and retail commercial development on a project site that is located within a HQTA and TPA near frequent bus and rail lines, the project would reduce VMT by encouraging the use of transit, walking, and bicycling as compared to similar stand-alone residential uses that are not located in close proximity to transit. Additionally, project-generated VMT per service population would meet the VMT thresholds the City developed to fulfill the requirements of SB 743. Because a reduction in GHG emissions from passenger vehicles is one of the objectives of SB 743 and one of the overarching strategies of the 2017 Scoping Plan, operation of the project would not conflict with the statewide GHG target for 2030 mandated by SB 32.

Thus, the GHG emission reductions resulting from the project's features, design, and location would be consistent with the goals of the 2017 Scoping Plan and would assist the state with meeting its GHG reduction goals. Table 3.3-4 shows the project's consistency with statutes and programs identified in the state's 2017 Scoping Plan that aim to reduce GHG emissions.

Table 3.3-4. Consistency of Project with 2017 Scoping Plan

Applicable Policies and Objectives	Project Consistency Assessment
SB 350: Reduce GHG emissions in the electricity sector through the implementation of the 50 percent RPS, doubling of energy savings, and other actions as appropriate to achieve GHG emissions reductions planning targets in the Integrated Resource Plan process.	**Consistent.** This policy is a state program that requires no action at the local or project level.
Low-Carbon Fuel Standard: Transition to cleaner/less-polluting fuels that have a lower carbon footprint.	**Consistent.** This policy is a state program that requires no action at the local or project level. Nonetheless, the project would reduce mobile-source GHG emissions by including short- and long-term bike parking and providing 131 Electric Vehicle Ready Parking Spaces with 44 Electric Vehicle Charging Stations.
Mobile Source Strategy (Cleaner Technology and Fuels [CTF] Scenario): Reduce GHGs and other pollutants from the transportation sector through transition to zero-emission and low-emission vehicles, cleaner transit systems and reduction of vehicle miles traveled.	**Consistent.** This policy is a state program that requires no action at the local or project level. Nonetheless, the project would reduce mobile-source GHG emissions by including short- and long-term bicycle parking and providing 131 Electric Vehicle Ready Parking Spaces with 44 Electric Vehicle Charging Stations. Additionally, project-generated VMT per service population would meet the VMT thresholds the City developed to fulfill the requirements of SB 743. Because a reduction in GHG emissions from passenger vehicles is one of the objectives of SB 743 and one of the overarching strategies of the 2017 Scoping Plan, operation of the project would not conflict with the statewide GHG target for 2030 mandated by SB 32.
SB 1383: Approve and Implement Short-Lived Climate Pollutant strategy to reduce highly potent GHGs.	**Not applicable.** This policy is a state program that requires no action at the local or project level and is not applicable to the proposed project. The project would not conflict with this statute.
California Sustainable Freight Action Plan: Improve freight efficiency, transition to zero-emission technologies, and increase competitiveness of California's freight system.	**Not applicable.** This policy is a state program that requires no action at the local or project level and is not applicable to the proposed project. The project would not conflict with this plan.
Post-2020 Cap-and-Trade Program: Reduce GHGs across largest GHG emissions sources.	**Not applicable.** This policy is a state program that requires no action at the local or project level. The project would not conflict with this program.

City of Los Angeles – Sustainable City pLAn

The 2019 Los Angeles' Green New Deal is the first four-year update to the City's 2015 pLAn and expands in more detail the vision to achieve a sustainable future that entails a carbon-neutral economy by 2050. This updated plan accelerates targets from the 2015 pLAn for supplying

renewable energy, increasing local water sourcing, reducing building energy, reducing VMT per capita, reducing municipal GHG emissions, increasing the percentage of zero emission passenger and City-fleet vehicles, building new housing near transit, and increasing the number of green jobs. Of the issue areas that are addressed in separate chapters in the 2019 updates to the pLAn, those that are relevant for the project include: Renewable Energy, Local Water, Clean & Health Buildings, Housing & Development, Mobility & Public Transit, Zero Emission Vehicles, Water & Resource Recovery, and Urban Ecosystems & Resilience. The relevant targets established for each of these issue areas that are applicable to the project are shown in Table 3.3-5. The project-level analysis describes the consistency of the project with these targets.

Table 3.3-5. Consistency of Project with Sustainable City pLAn (2019 Update)

Applicable Targets	Project Consistency Assessment
Renewable Energy	
• LADWP will supply 55% renewable energy by 2025; 80% by 2036; and 100% by 2045 • Increase cumulative MW by 2025; 2035; and 2050 of: o Local solar to 900-1,500 MW; 1,500-1,800 MW; and 1,950 MW o Energy storage capacity to 1,654-1,750 MW; 3,000 MW; and 4,000 MW o Demand response (DR) programs to 234 MW (2025) and 600 MW (2035)	**Consistent.** Although this reduction target is applicable to the City's renewable energy programs, the project would support this target through its installation of high-efficiency HVAC and electrical systems. The project would also designate 15% of the building's roof area as a zone for solar use.
Local Water	
• Reduce potable water use per capita by 22.5% by 2025; and 25% by 2035; and maintain or reduce 2035 per capita water use through 2050	**Consistent.** The project would comply with the applicable requirements of the California Green Building Standards Code and the City of Los Angeles Green Building Code and incorporate water efficiency measures. The project's design would utilize low-flow plumbing fixtures that at a minimum comply with the flush volumes and gallons per minute water rates in the CALGreen Code and City requirements to reduce indoor water use. The project also incorporates outdoor water conservation measures including the installation of water-efficient irrigation systems and the planting of water-efficient landscaping consisting of native and drought-tolerant vegetation to minimize irrigation requirements. Water demand rates for multi-family residential uses are lower than those for single-family residential uses, and therefore the project would contribute to per-capita reductions in potable water use (LADWP 2020, Page 2-10).
Clean & Healthy Buildings	
• Reduce building energy use per sq. ft. for all building types 22% by 2025; 34% by 2035; and 44% by 2050	**Consistent.** The project would install energy efficient HVAC and lighting systems, Energy Star appliances, and meet Cal Green and Title 24 Building Standards Code requirements. Though the project would allow for natural gas appliances and

Applicable Targets	Project Consistency Assessment
	heating, all units would meet high efficiency standards. The project would also designate 15% of the building's roof area as a zone for solar use.

Applicable Targets	Project Consistency Assessment
Housing & Development	
• Ensure 57% of new housing units are built within 1,500 ft. of transit by 2025; and 75% by 2035 • Create or preserve 50,000 income-restricted affordable housing units by 2035 and increase stability for renters	**Consistent.** The project is located in an urban infill location that is near multiple public transportation options offered by Metro, LADOT, and municipal transit agencies and would place housing near jobs and transit. The project would no include income-restricted housing units, but project implementation would not preclude such efforts. The TFAR component requires a PBP and, as approved by the City Council, the PBP can be utilized to create or preserve income-restricted affordable housing units.
Mobility & Public Transit	
• Increase the percentage of all trips made by walking, biking, micro-mobility / matched rides or transit to at least 35% by 2025; 50% by 2035; and maintain at least 50% by 2050 • Reduce VMT per capita by at least 13% by 2025; 39% by 2035; and 45% by 2050	**Consistent.** Due to its location within a HQTA and TPA near multiple public transportation options offered by Metro, LADOT, and municipal transit agencies, the project would reduce VMT by encouraging the use of transit, walking, and bicycling as compared to similar stand-alone residential uses that are not located in close proximity to transit. The urban infill characteristics of the project site offer a diversity of land uses near the project site, which would reduce vehicle trips and VMT by encouraging walking and non-automotive forms of transportation. Additionally, project-generated VMT per service population would meet the VMT thresholds the City developed to fulfill the requirements of SB 743. Because a reduction in GHG emissions from passenger vehicles is one of the objectives of SB 743 and one of the overarching strategies of the 2017 Scoping Plan, operation of the project would not conflict with the statewide GHG target for 2030 mandated by SB 32.
Zero Emission Vehicles	
• Increase the percentage of electric and zero emission vehicles in the city to 25% by 2025; 80% by 2035; and 100% by 2050	**Consistent.** By providing 131 Electric Vehicle Ready Parking Spaces including 44 Electric Vehicle Charging Stations, the project supports this reduction target by the City.

Applicable Targets	Project Consistency Assessment
Waste & Resource Recovery	
• Increase landfill diversion rate to 90% by 2025; 95% by 2035; and 100% by 2050 • Eliminate organic waste going to landfill by 2028 • Increase proportion of waste products and recyclables productively reused and/or repurposed within L.A. County to at least 25% by 2025; and 50% by 2035	**Consistent.** The project would be served by a solid waste collection and recycling service under the recycLA program that was recently implemented on February 1, 2018. Part of the services that recycLA will offer to businesses and large multi-family customers include blue bins for recycling and organics recycling. The implementation of this program is aimed to achieve the City's zero waste goal by 2050. Construction and demolition debris would be disposed of in accordance with the 2019 CALGreen Code, as amended in the LAMC.
Urban Ecosystem & Resilience	
• Increase tree canopy in areas of greatest need by at least 50% by 2028	**Consistent.** There are six non-protected street trees along 11th Street and Hill Street. As part of the project, one of the six existing trees would be removed and replace with two new trees, for a total of seven street trees along the perimeter of the project site. the remaining tree would be maintained. The project would also provide 120 trees on the project site. As such, the project would support the City's reduction target associated with increase the City's tree canopy.

As described in Table 3.3-3, the project would be consistent with and support the applicable City targets of the 2019 updates to the pLAn for achieving a carbon neutral economy by 2050.

City of Los Angeles Green Building Code

The project would be consistent with the Los Angeles Green Building Code, which would reduce GHG emissions by complying with Title 24 Building Energy Efficiency Standards, as amended by the City, and installing Energy Star appliances. The project would reduce indoor water use through the installation of low-flow plumbing fixtures that, at a minimum, comply with the flush volumes and gallons-per-minute water rates in the CALGreen Code and City requirements to decrease indoor water use. Outdoor water conservation measures include the installation of water-efficient irrigation systems and the planting of water-efficient landscaping, consisting of native and drought-tolerant vegetation, to minimize irrigation requirements. The HVAC system would also be designed in compliance with the CALGreen Code to maximize energy efficiency with respect to heat loss and heat gain. Each of these project elements would help minimize GHG emissions, and the project would be consistent with the Los Angeles Green Building Code.

Conclusion

In summary, the GHG emission reductions resulting from the project's features, design, and location would be consistent with the goals of the 2017 Scoping Plan, SB 375, the 2020-2045 RTP/SCS, and Los Angeles' Sustainable City pLAn and Green Building Code. Accordingly, impacts related to conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs would be less than significant.

Chapter 4
References

4.1 Air Quality References

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Appendix A: Air Quality and Greenhouse Gas Analysis Modeling Files

A-1: AQ/GHG Construction Emissions

REGIONAL CONSTRUCTION EMISSIONS - Unmitigated

	Maximum Daily Emissions (lbs/day)									
Phase	ROG	NOx	CO	PM10 Exhaust	PM10 Dust	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5 Total	SOx
2022										
Demolition	1	21	10	0	3	3	0	1	1	0
2023										
Demolition	1	16	9	0	3	3	0	1	1	0
Site Preparation	0	5	5	0	1	1	0	0	0	0
Grading	1	49	14	0	11	12	0	3	4	0
Building Foundation	5	72	36	1	10	12	1	3	4	0
Building Construction	3	16	24	0	8	8	0	1	2	0
2024										
Building Construction + Architectural Coatings	12	14	25	0	8	9	0	1	2	0
2025										
Building Construction + Architectural Coatings + Asphalt Paving	11	10	21	0	9	9	0	2	2	0
Maximum:	12	72	36	1	11	12	1	3	4	0

LOCALIZED CONSTRUCTION EMISSIONS - Unmitigated

	Maximum Daily Emissions (lbs/day)									
Phase	ROG	NOx	CO	PM10 Exhaust	PM10 Dust	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5 Total	SOx
2022										
Demolition	1	7	7	0	1	1	0	0	0	0
2023										
Demolition	1	6	7	0	1	1	0	0	0	0
Site Preparation	0	3	3	0	0	0	0	0	0	0
Grading	1	8	6	0	3	3	0	2	2	0
Building Foundation	5	37	33	1	1	2	1	1	2	0
Building Construction	1	11	9	0	0	0	0	0	0	0
2024										
Building Construction + Architectural Coatings	11	10	9	0	0	0	0	0	0	0
2025										
Building Construction + Architectural Coatings + Asphalt Paving	10	3	5	0	0	0	0	0	0	0
Maximum:	11	37	33	1	3	3	1	2	2	0

Summary of Total Emissions

By Year Only

Year	Tons per year										Metric tons per year				
	ROG	NOX	CO	PM10 E	PM10 D	PM 10 T	PM2.5 E	PM2.5 D	PM2.5 T	SO2	CO2	CH4	N2O	CO2e	
2022	0.0	0.3	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	123.3	0.0	0.0	127.7	
2023	0.1	1.4	1.6	0.0	0.8	0.8	0.0	0.2	0.2	0.0	1,162.7	0.0	0.1	1,192.5	
2024	0.7	0.8	2.2	0.0	1.0	1.0	0.0	0.2	0.2	0.0	1,233.4	0.0	0.1	1,249.8	
2025	1.2	0.5	1.7	0.0	0.9	0.9	0.0	0.2	0.2	0.0	979.2	0.0	0.0	992.8	**30-year Amortization**
Total	2.0	3.1	5.6	0.0	2.8	2.8	0.0	0.5	0.6	0.0	3,498.6	0.1	0.2	3,562.9	119

Summary of Total Fuel Consumption *118.764082*

Year	Gallons per year	
	Gasoline	Diesel
2022	447.223407	11577.4575
2023	37748.8787	60350.5576
2024	64135.0343	30957.9889
2025	55899.4246	19560.0648
Total	158,231	122,446

Demo Calculations

Code	Year	Lookup	Days	Demo (tons/day)	Pounds per day							
					ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2
Phase1	2022	Phase1:2022	30	80.2485						0.6	0.1	
Phase1	2023	Phase1:2023	17	80.2485						0.6	0.1	

Phase	Activity	Structure (SF)	Tons	CY
Phase1	Demolition	81993.0	3772	2983.530172

Demo Calculations

Code	Year	Lookup	Days	Demo (tons/day)	Tons per year								Metric tons per year			
					ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e
Phase1	2022	Phase1:2022	30	80.2485						0.0	0.0					
Phase1	2023	Phase1:2023	17	80.2485						0.0	0.0					

Phase	Activity	Structure (SF)	Tons	CY
Phase1	Demolition	81993.0	3772	2983.530172

Offroad Calculations

Code	Equip	#/day	hrs/day	Year	Days	CMOD	HP Bin	HP	LF	Fuel	Fuel (gal/day)	Pounds per day							
												ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2
Phase1	Excavator	2	8	2022	30	Excavators	500	417	0.38	Diesel	117	0.7	5.8	6.0	0.2	0.2			0.0
Phase1	Excavator	2	8	2023	17	Excavators	500	417	0.38	Diesel	117	0.7	5.0	5.9	0.2	0.2			0.0
Phase2	Excavator	1	8	2023	13	Excavators	500	417	0.38	Diesel	59	0.3	2.5	3.0	0.1	0.1			0.0
Phase3	Excavator	1	8	2023	33	Excavators	500	417	0.38	Diesel	59	0.3	2.5	3.0	0.1	0.1			0.0
Phase4a	Concrete Placing Boom Truck	4	20	2023	1	Off-Highway Trucks	500	402	0.38	Diesel	571	5.1	35.9	33.0	1.3	1.2			0.1
Phase4b	Generator	0	6	2023	150	Generator Sets	50	84	0.74	Diesel	0	0.0	0.0	0.0	0.0	0.0			0.0
Phase4b	Pump	1	12	2023	6	Pumps	500	443	0.74	Diesel	219	1.5	10.8	8.7	0.3	0.3			0.0
Phase4b	Generator	0	6	2024	262	Generator Sets	50	84	0.74	Diesel	0	0.0	0.0	0.0	0.0	0.0			0.0
Phase4b	Pump	1	12	2024	39	Pumps	500	443	0.74	Diesel	219	1.4	9.5	8.6	0.3	0.3			0.0
Phase4b	Generator	0	6	2025	224	Generator Sets	50	84	0.74	Diesel	0	0.0	0.0	0.0	0.0	0.0			0.0
Phase5	Asphalt Paver	1	10	2025	1	Pavers	175	173	0.42	Diesel	33	0.3	2.6	4.8	0.1	0.1			0.0
Phase6	Air Compressor	0	8	2024	109	Air Compressors	50	78	0.48	Diesel	0	0.0	0.0	0.0	0.0	0.0			0.0
Phase6	Air Compressor	0	8	2025	224	Air Compressors	50	78	0.48	Diesel	0	0.0	0.0	0.0	0.0	0.0			0.0

*Concrete pump will operate every 6 days for a total of 45 days during Phase 4, with 6 days in 2023 and 39 days in 2024.

Offroad Calculations

Code	Equip	#/day	hrs/day	Year	Days	CMOD	HP Bin	HP	LF	Fuel	Fuel (gal/day)	Tons per year							Metric tons per year				Fuel (gal/year)
												ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D SO2	CO2	CH4	N2O	CO2e	
Phase1	Excavator	2	8	2022	30	Excavators	500	417	0.38	Diesel	117	0.0	0.1	0.1	0.0	0.0		0.0	35.9	0.0	0.0	36.5	3517
Phase1	Excavator	2	8	2023	17	Excavators	500	417	0.38	Diesel	117	0.0	0.0	0.1	0.0	0.0		0.0	20.4	0.0	0.0	20.7	1994
Phase2	Excavator	1	8	2023	13	Excavators	500	417	0.38	Diesel	59	0.0	0.0	0.0	0.0	0.0		0.0	7.8	0.0	0.0	7.9	762
Phase3	Excavator	1	8	2023	33	Excavators	500	417	0.38	Diesel	59	0.0	0.0	0.0	0.0	0.0		0.0	19.8	0.0	0.0	20.1	1935
Phase4a	Concrete Placing Boom Truck	4	20	2023	1	Off-Highway Trucks	500	402	0.38	Diesel	571	0.0	0.0	0.0	0.0	0.0		0.0	5.8	0.0	0.0	5.9	571
Phase4b	Generator	0	6	2023	150	Generator Sets	50	84	0.74	Diesel	0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0
Phase4b	Pump	1	12	2023	6	Pumps	500	443	0.74	Diesel	219	0.0	0.0	0.0	0.0	0.0		0.0	13.4	0.0	0.0	13.5	1314
Phase4b	Generator	0	6	2024	262	Generator Sets	50	84	0.74	Diesel	0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0
Phase4b	Pump	1	12	2024	39	Pumps	500	443	0.74	Diesel	219	0.0	0.2	0.2	0.0	0.0		0.0	87.2	0.0	0.0	87.9	8540
Phase4b	Generator	0	6	2025	224	Generator Sets	50	84	0.74	Diesel	0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0
Phase5	Asphalt Paver	1	10	2025	1	Pavers	175	173	0.42	Diesel	33	0.0	0.0	0.0	0.0	0.0		0.0	0.3	0.0	0.0	0.3	33
Phase6	Air Compressor	0	8	2024	109	Air Compressors	50	78	0.48	Diesel	0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0
Phase6	Air Compressor	0	8	2025	224	Air Compressors	50	78	0.48	Diesel	0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0

*Concrete pump will operate every 6 days for a total of 45 days during Phase 4, with 6 days in 2023 and 39 days in 2024.

Employee Calculations

Code	Basin	Year	Vehicles/ day	Single Trips/day	Days	Miles/day	Vehicle	Vehicle Type	Fuel	Fuel (gal/day)	Pounds per day							
											ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2
Phase1	SCAB	2022	15	30	30	441	Employee	LDA-LDT	Gas	15	0.1	0.1	1.0	0.0	0.0	0.4	0.1	0.0
Phase1	SCAB	2023	15	30	17	441	Employee	LDA-LDT	Gas	15	0.1	0.1	0.9	0.0	0.0	0.4	0.1	0.0
Phase2	SCAB	2023	20	40	13	588	Employee	LDA-LDT	Gas	19	0.1	0.1	1.2	0.0	0.0	0.6	0.1	0.0
Phase3	SCAB	2023	30	60	33	882	Employee	LDA-LDT	Gas	29	0.1	0.1	1.8	0.0	0.0	0.8	0.1	0.0
Phase4a	SCAB	2023	5	10	1	147	Employee	LDA-LDT	Gas	5	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.0
Phase4b	SCAB	2023	250	500	150	7350	Employee	LDA-LDT	Gas	242	1.0	1.0	15.1	0.0	0.0	7.0	1.2	0.0
Phase4b	SCAB	2024	250	500	262	7350	Employee	LDA-LDT	Gas	237	1.0	0.9	14.2	0.0	0.0	7.0	1.2	0.0
Phase4b	SCAB	2025	250	500	224	7350	Employee	LDA-LDT	Gas	231	0.9	0.8	13.3	0.0	0.0	7.0	1.2	0.0
Phase5	SCAB	2025	5	10	1	147	Employee	LDA-LDT	Gas	5	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.0
Phase6	SCAB	2024	20	40	109	588	Employee	LDA-LDT	Gas	19	0.1	0.1	1.1	0.0	0.0	0.6	0.1	0.0
Phase6	SCAB	2025	20	40	224	588	Employee	LDA-LDT	Gas	18	0.1	0.1	1.1	0.0	0.0	0.6	0.1	0.0

Employee Calculations

Code	Basin	Year	Vehicles/ day	Single Trips/day	Days	Miles/day	Vehicle	Vehicle Type	Fuel	Fuel (gal/day)	Tons per year								Metric tons per year				Gal per year
											ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	
Phase1	SCAB	2022	15	30	30	441	Employee	LDA-LDT	Gas	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	0.0	0.0	4.0	447
Phase1	SCAB	2023	15	30	17	441	Employee	LDA-LDT	Gas	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	2.2	247
Phase2	SCAB	2023	20	40	13	588	Employee	LDA-LDT	Gas	19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	2.2	252
Phase3	SCAB	2023	30	60	33	882	Employee	LDA-LDT	Gas	29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4	0.0	0.0	8.5	958
Phase4a	SCAB	2023	5	10	1	147	Employee	LDA-LDT	Gas	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5
Phase4b	SCAB	2023	250	500	150	7350	Employee	LDA-LDT	Gas	242	0.1	0.1	1.1	0.0	0.0	0.5	0.1	0.0	318.6	0.0	0.0	321.1	36288
Phase4b	SCAB	2024	250	500	262	7350	Employee	LDA-LDT	Gas	237	0.1	0.1	1.9	0.0	0.0	0.9	0.2	0.0	545.0	0.0	0.0	549.0	62069
Phase4b	SCAB	2025	250	500	224	7350	Employee	LDA-LDT	Gas	231	0.1	0.1	1.5	0.0	0.0	0.8	0.1	0.0	454.4	0.0	0.0	457.7	51754
Phase5	SCAB	2025	5	10	1	147	Employee	LDA-LDT	Gas	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5
Phase6	SCAB	2024	20	40	109	588	Employee	LDA-LDT	Gas	19	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	18.1	0.0	0.0	18.3	2066
Phase6	SCAB	2025	20	40	224	588	Employee	LDA-LDT	Gas	18	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	36.4	0.0	0.0	36.6	4140

Offsite Onroad Calculations

Code	Air Basin	Year	Vehicles/ day	Single Trips/day	Days	Miles/day	Vehicle	Vehicle Type	Fuel	Fuel (gal/day)	Pounds per day							
											ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2
Phase1	SCAB	2022	30	60	30	1800	Dump Truck	T7	Diesel	261	0.3	14.0	1.9	0.1	0.1	1.9	0.4	0.1
Phase1	SCAB	2022	1	2	30	14	Water Truck	T6	Diesel	1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Phase1	SCAB	2023	30	60	17	1800	Dump Truck	T7	Diesel	248	0.1	9.9	1.4	0.1	0.1	1.9	0.4	0.1
Phase1	SCAB	2023	1	2	17	14	Water Truck	T6	Diesel	1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Phase2	SCAB	2023	5	10	13	350	Dump Truck	T7	Diesel	48	0.0	1.9	0.3	0.0	0.0	0.4	0.1	0.0
Phase2	SCAB	2023	1	2	13	14	Water Truck	T6	Diesel	1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Phase3	SCAB	2023	126	252	33	7560	Dump Truck	T7	Diesel	1041	0.5	41.5	5.8	0.2	0.2	8.0	1.6	0.2
Phase3	SCAB	2023	1	2	33	14	Water Truck	T6	Diesel	1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Phase4a	SCAB	2023	576	1,152	1	7949	Concrete Truck	T6	Diesel	751	0.2	35.2	2.7	0.2	0.2	9.2	2.0	0.2
Phase4b	SCAB	2023	10	20	150	600	Dump Truck	T7	Diesel	83	0.0	3.3	0.5	0.0	0.0	0.6	0.1	0.0
Phase4b	SCAB	2024	10	20	262	600	Dump Truck	T7	Diesel	82	0.0	3.2	0.5	0.0	0.0	0.6	0.1	0.0
Phase4b	SCAB	2025	10	20	224	600	Dump Truck	T7	Diesel	81	0.0	3.2	0.5	0.0	0.0	0.6	0.1	0.0
Phase5	SCAB	2025	10	20	1	300	Dump Truck	T7	Diesel	41	0.0	1.8	0.3	0.0	0.0	0.3	0.1	0.0
Phase6	SCAB	2024	1	2	109	30	Dump Truck	T7	Diesel	4	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Phase6	SCAB	2025	1	2	224	30	Dump Truck	T7	Diesel	4	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0

Offsite Onroad Calculations

Code	Air Basin	Year	Vehicles/ day	Single Trips/day	Days	Miles/day	Vehicle	Vehicle Type	Fuel	Fuel (gal/day)	Tons per year								Metric tons per year				Gal per year
											ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	
Phase1	SCAB	2022	30	60	30	1800	Dump Truck	T7	Diesel	261	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	79.8	0.0	0.0	83.6	7818
Phase1	SCAB	2022	1	2	30	14	Water Truck	T6	Diesel	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.4	41
Phase1	SCAB	2023	30	60	17	1800	Dump Truck	T7	Diesel	248	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	43.0	0.0	0.0	45.0	4213
Phase1	SCAB	2023	1	2	17	14	Water Truck	T6	Diesel	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	22
Phase2	SCAB	2023	5	10	13	350	Dump Truck	T7	Diesel	48	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4	0.0	0.0	6.7	625
Phase2	SCAB	2023	1	2	13	14	Water Truck	T6	Diesel	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	17
Phase3	SCAB	2023	126	252	33	7560	Dump Truck	T7	Diesel	1041	0.0	0.7	0.1	0.0	0.0	0.1	0.0	0.0	350.7	0.0	0.1	367.2	34351
Phase3	SCAB	2023	1	2	33	14	Water Truck	T6	Diesel	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.5	43
Phase4a	SCAB	2023	576	1,152	1	7949	Concrete Truck	T6	Diesel	751	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7	0.0	0.0	8.0	751
Phase4b	SCAB	2023	10	20	150	600	Dump Truck	T7	Diesel	83	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	126.5	0.0	0.0	132.5	12392
Phase4b	SCAB	2024	10	20	262	600	Dump Truck	T7	Diesel	82	0.0	0.4	0.1	0.0	0.0	0.1	0.0	0.0	218.4	0.0	0.0	228.6	21386
Phase4b	SCAB	2025	10	20	224	600	Dump Truck	T7	Diesel	81	0.0	0.4	0.1	0.0	0.0	0.1	0.0	0.0	184.2	0.0	0.0	192.9	18046
Phase5	SCAB	2025	10	20	1	300	Dump Truck	T7	Diesel	41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.4	41
Phase6	SCAB	2024	1	2	109	30	Dump Truck	T7	Diesel	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	0.0	0.0	4.9	454
Phase6	SCAB	2025	1	2	224	30	Dump Truck	T7	Diesel	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.4	0.0	0.0	9.8	921

Onsite Onroad Calculations

Code	Air Basin	Year	Vehicles/ day	Single Trips/day	Days	Miles/day	Vehicle	Vehicle Type	Fuel	Fuel (gal/day)	Pounds per day							
											ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2
Phase1	SCAB	2022	30	60	30	4	Dump Truck	T7Onsite	Diesel	7	0.1	1.3	0.7	0.0	0.0	0.0	0.0	0.0
Phase1	SCAB	2022	1	6	30	0	Water Truck	T6Onsite	Diesel	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Phase1	SCAB	2023	30	60	17	4	Dump Truck	T7Onsite	Diesel	6	0.0	1.2	0.7	0.0	0.0	0.0	0.0	0.0
Phase1	SCAB	2023	1	6	17	0	Water Truck	T6Onsite	Diesel	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Phase2	SCAB	2023	5	10	13	1	Dump Truck	T7Onsite	Diesel	1	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0
Phase2	SCAB	2023	1	6	13	0	Water Truck	T6Onsite	Diesel	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Phase3	SCAB	2023	126	252	33	15	Dump Truck	T7Onsite	Diesel	27	0.2	5.1	2.9	0.0	0.0	0.2	0.2	0.0
Phase3	SCAB	2023	1	6	33	0	Water Truck	T6Onsite	Diesel	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Phase4a	SCAB	2023	576	1,152	1	69	Cement Truck	T6Onsite	Diesel	16	0.0	1.1	0.1	0.0	0.0	1.0	0.9	0.0
Phase4b	SCAB	2023	10	20	150	1	Dump Truck	T7Onsite	Diesel	2	0.0	0.4	0.2	0.0	0.0	0.0	0.0	0.0
Phase4b	SCAB	2024	10	20	262	1	Dump Truck	T7Onsite	Diesel	2	0.0	0.4	0.2	0.0	0.0	0.0	0.0	0.0
Phase4b	SCAB	2025	10	20	224	1	Dump Truck	T7Onsite	Diesel	2	0.0	0.4	0.2	0.0	0.0	0.0	0.0	0.0
Phase5	SCAB	2025	10	20	1	1	Dump Truck	T7Onsite	Diesel	2	0.0	0.4	0.2	0.0	0.0	0.0	0.0	0.0
Phase6	SCAB	2024	1	2	109	0	Dump Truck	T7Onsite	Diesel	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Phase6	SCAB	2025	1	2	224	0	Dump Truck	T7Onsite	Diesel	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Onsite Onroad Calculations

Code	Air Basin	Year	Vehicles/ day	Single Trips/day	Days	Miles/day	Vehicle	Vehicle Type	Fuel	Fuel (gal/day)	Tons per year								Metric tons per year				Gal per year
											ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	
Phase1	SCAB	2022	30	60	30	4	Dump Truck	T7Onsite	Diesel	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.1	197
Phase1	SCAB	2022	1	6	30	0	Water Truck	T6Onsite	Diesel	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	5
Phase1	SCAB	2023	30	60	17	4	Dump Truck	T7Onsite	Diesel	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	1.2	109
Phase1	SCAB	2023	1	6	17	0	Water Truck	T6Onsite	Diesel	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3
Phase2	SCAB	2023	5	10	13	1	Dump Truck	T7Onsite	Diesel	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	14
Phase2	SCAB	2023	1	6	13	0	Water Truck	T6Onsite	Diesel	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2
Phase3	SCAB	2023	126	252	33	15	Dump Truck	T7Onsite	Diesel	27	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	9.1	0.0	0.0	9.5	890
Phase3	SCAB	2023	1	6	33	0	Water Truck	T6Onsite	Diesel	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	5
Phase4a	SCAB	2023	576	1,152	1	69	Cement Truck	T6Onsite	Diesel	16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	16
Phase4b	SCAB	2023	10	20	150	1	Dump Truck	T7Onsite	Diesel	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0	3.4	321
Phase4b	SCAB	2024	10	20	262	1	Dump Truck	T7Onsite	Diesel	2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	5.9	555
Phase4b	SCAB	2025	10	20	224	1	Dump Truck	T7Onsite	Diesel	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	0.0	0.0	5.0	470
Phase5	SCAB	2025	10	20	1	1	Dump Truck	T7Onsite	Diesel	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2
Phase6	SCAB	2024	1	2	109	0	Dump Truck	T7Onsite	Diesel	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	23
Phase6	SCAB	2025	1	2	224	0	Dump Truck	T7Onsite	Diesel	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.5	47

Earthmoving/Paving Calculations

Code	Air Basin	Year	Lookup	Days	Strip (acres/day)	Borrow/Excavate (cy/day)	Dozing hr/day	Paving (sf/day)	Pounds per day							
									ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2
Phase3	SCAB	2023	Phase3:2023	33	0.0500	1758	8	0	0.0					2.4	1.3	
Phase5	SCAB	2025	Phase5:2025	1	0.0000	0	0	4356	0.3					0.0	0.0	

Phase	Activity	Total	Unit	Total days	Unit/day
Phase3	Grading	0.6	acres	33	0.05
Phase3	Import/export, overexcavat/recompact	58000.0	CY	33	1757.58
Phase5	Paving	4356.0	SF	1	4356.00

Earthmoving/Paving Calculations

Code	Air Basin	Year	Lookup	Days	Strip (acres/day)	Borrow/Excavate (cy/day)	Dozing hr/day	Paving (sf/day)	Tons per year								Metric tons per year			
									ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e
Phase3	SCAB	2023	Phase3:2023	33	0.0500	1758	8	0	0.0					0.0	0.0					
Phase5	SCAB	2025	Phase5:2025	1	0.0000	0	0	4356	0.0					0.0	0.0					

Phase	Activity	Total	Unit	Total days	Unit/day
Phase3	Grading	0.6	acres	33	0.05
Phase3	Import/export, overexcavat/recompact	58000.0	CY	33	1757.58
Phase5	Paving	4356.0	SF	1	4356.00

Paving Calculations

Code	Year	Lookup	Days	Daily Residential Coating SF	Daily Nonresidential	Daily Parking	Pounds per day ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2
Phase6	2024	Phase6:2024	109	3961	21	19	9.3							
Phase6	2025	Phase6:2025	224	3961	21	19	9.3							

*Parking SF based on 26,277.2 gsf per parking level from data provided by MVE + Partners.

Phase	Land Use	SF	Tot Coating SF	Daily Coating SF
Phase6	Residential	373480.00	1008396.00	3028.22
Phase6	Hotel Rooms	115068.00	310683.60	932.98
Phase6	on-Residenti	3429.00	6858.00	20.59
Phase6	Parking	105109.00	6306.54	18.94

Paving Calculations

Code	Year	Lookup	Days	Daily Residential Coating SF	Daily Nonresidential	Daily Parking	Tons per year							Metric tons per year			
							ROG	NOX	CO	PM10	PM2.5	PM10 D PM2.5 D	SO2	CO2	CH4	N2O	CO2e
Phase6	2024	Phase6:2024	109	3961	21	19	0.5										
Phase6	2025	Phase6:2025	224	3961	21	19	1.0										

*Parking SF based on 26,277.2 gsf per parking level from data provided by MVE + Partners.

Phase	Land Use	SF	Tot Coating SF	Daily Coating SF
Phase6	Residential	373480.00	1008396.00	3028.22
Phase6	Hotel Rooms	115068.00	310683.60	932.98
Phase6	on-Residenti	3429.00	6858.00	20.59
Phase6	Parking	105109.00	6306.54	18.94

Electric Construction Equipment Energy Calculations

Code	Year	Lookup	Equipment	#/day	hrs/day	Days	Daily Consumption (MWh)	Daily Consumption (MMBTU)	Total Consumption (MWh)	Metric tons per year			
										CO2	CH4	N2O	CO2e
Phase4b	2023	Phase4b:2023	Tower Crane	1	12	150	2	na	311	93.6	0.0	0.0	93.9
Phase4b	2023	Phase4b:2023	Manlift	3	12	150	2	na	324	97.4	0.0	0.0	97.7
Phase4b	2023	Phase4b:2023	Concrete Boom	1	12	150	0	na	54	16.2	0.0	0.0	16.3
Phase4b	2024	Phase4b:2024	Tower Crane	1	12	262	2	na	544	154.1	0.0	0.0	154.5
Phase4b	2024	Phase4b:2024	Manlift	3	12	262	2	na	566	160.4	0.0	0.0	160.8
Phase4b	2024	Phase4b:2024	Concrete Boom	1	12	262	0	na	94	26.7	0.0	0.0	26.8
Phase4b	2025	Phase4b:2025	Tower Crane	1	12	224	2	na	465	123.7	0.0	0.0	124.0
Phase4b	2025	Phase4b:2025	Manlift	3	12	224	2	na	484	128.7	0.0	0.0	129.1
Phase4b	2025	Phase4b:2025	Concrete Boom	1	12	224	0	na	81	21.5	0.0	0.0	21.5
Phase1	2022	Phase1:2022	Offsite Office	NA	NA	30	0.107	0.086	3	1.2	0.0	0.0	1.2
Phase1	2023	Phase1:2023	Offsite Office	NA	NA	17	0.107	0.086	2	0.6	0.0	0.0	0.6
Phase2	2023	Phase2:2023	Offsite Office	NA	NA	13	0.107	0.086	1	0.5	0.0	0.0	0.5
Phase3	2023	Phase3:2023	Offsite Office	NA	NA	33	0.107	0.086	4	1.2	0.0	0.0	1.2
Phase4b	2023	Phase4b:2023	Offsite Office	NA	NA	150	0.107	0.086	16	5.5	0.0	0.0	5.5
Phase4b	2024	Phase4b:2024	Offsite Office	NA	NA	262	0.107	0.086	28	9.1	0.0	0.0	9.1
Phase4b	2025	Phase4b:2025	Offsite Office	NA	NA	224	0.107	0.086	24	7.4	0.0	0.0	7.4
Phase5	2025	Phase5:2025	Offsite Office	NA	NA	1	0.107	0.086	0	0.0	0.0	0.0	0.0
Phase6	2024	Phase6:2024	Offsite Office	NA	NA	109	0.107	0.086	12	3.8	0.0	0.0	3.8
Phase6	2025	Phase6:2025	Offsite Office	NA	NA	224	0.107	0.086	24	7.4	0.0	0.0	7.4
									3037				

Equip	Electrical Consumption	Unit	Notes
Tower Crane	173	kW	550 EC-H20 Litronic Tower Crane (total kW of all motors)
Manlift	60	kW	*Assumes 480V, 3-phase, 100 amp manlift with 0.85 power factor
Concrete Boom	30	kW	Assumes Schwing Stetter SPB 32 (split boom)

Temp Office Offsite	Size	Unit	kWH/yr	kBTU/yr
General Office Buildir	3000	sf	38970	31230

A-2: AQ/GHG Operations Emissions

A-2-1: Operations AQ Emissions

Regional Operational Emissions

SUMMER	ROG	NO_X	CO	SO_X	PM_{10} Total	$PM_{2.5}$ Total
Category	**Emissions (lb/day)**					
Area	12.439	5.763	41.784	0.036	0.648	0.648
Energy	0.154	1.327	0.653	0.008	0.106	0.106
Mobile	3.506	5.750	30.088	0.085	9.070	2.467
Stationary	4.401	32.675	1.899	0.021	0.173	0.173
Total	**20.500**	**45.515**	**74.425**	**0.151**	**9.998**	**3.394**

WINTER	ROG	NO_X	CO	SO_X	PM_{10} Total	$PM_{2.5}$ Total
Category	**Emissions (lb/day)**					
Area	12.439	5.763	41.784	0.036	0.648	0.648
Energy	0.154	1.327	0.653	0.008	0.106	0.106
Mobile	3.506	5.750	30.088	0.085	9.070	2.467
Stationary	4.401	32.675	1.899	0.021	0.173	0.173
Total	**20.500**	**45.515**	**74.425**	**0.151**	**9.998**	**3.394**

MAXIMUM	ROG	NO_X	CO	SO_X	PM_{10} Total	$PM_{2.5}$ Total
Category	**Emissions (lb/day)**					
Area	12.439	5.763	41.784	0.036	0.648	0.648
Energy	0.154	1.327	0.653	0.008	0.106	0.106
Mobile	3.506	5.750	30.088	0.085	9.070	2.467
Stationary	4.401	32.675	1.899	0.021	0.173	0.173
Project Emissions	**20.500**	**45.515**	**74.425**	**0.151**	**9.998**	**3.394**
SCAQMD Regional Thresholds	55	75	550	150	150	55
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Localized Operational Emissions

SUMMER	NO_X	CO	PM_{10} Total	$PM_{2.5}$ Total
Category		**Emissions (lb/day)**		
Area	5.763	41.784	0.648	0.648
Energy	1.327	0.653	0.106	0.106
Mobile[1]	0.288	1.504	0.454	0.123
Stationary	32.675	1.899	0.173	0.173
Total	**40.053**	**45.841**	**1.381**	**1.051**

WINTER	NO_X	CO	PM_{10} Total	$PM_{2.5}$ Total
Category		**Emissions (lb/day)**		
Area	5.763	41.784	0.648	0.648
Energy	1.327	0.653	0.106	0.106
Mobile[1]	0.288	1.504	0.454	0.123
Stationary	32.675	1.899	0.173	0.173
Total	**40.053**	**45.841**	**1.381**	**1.051**

MAXIMUM	NO_X	CO	PM_{10} Total	$PM_{2.5}$ Total
Category		**Emissions (lb/day)**		
Area	5.763	41.784	0.648	0.648
Energy	1.327	0.653	0.106	0.106
Mobile[1]	0.288	1.504	0.454	0.123
Stationary	32.675	1.899	0.173	0.173
Project Emissions	**40.053**	**45.841**	**1.381**	**1.051**
SCAQMD Localized Thresholds	72.0	606.4	1.6	1.3
Exceeds Threshold?	**No**	**No**	**No**	**No**

1. Onsite mobile emissions are based on 5 percent of regional emissions.

1111 Hill St. Mixed-Use Project - Operations

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	436.00	Space	0.00	105,109.00	0
Quality Restaurant	3.43	1000sqft	0.00	3,429.00	0
Apartments High Rise	319.00	Dwelling Unit	0.00	373,480.00	912
Apartments High Rise	160.00	Dwelling Unit	0.63	115,068.00	458

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2026
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	548	**CH4 Intensity (lb/MWhr)**	0.022	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - LADWP intensity factors accounting for RPS

Land Use - Project land uses and square footages; As project's 160 hotel units would be TORS units, they are modeled as multi-family residential units. Parking SF based on approximately 26,277.2 SF per level

Construction Phase - Operational emisisons only

Off-road Equipment - architectural coating equip

Off-road Equipment - Electric equip only for Building phase

Off-road Equipment - Demo equip

Off-road Equipment - Grading equip

Off-road Equipment - paving equip

Off-road Equipment - Site prep equip

Trips and VMT - Operational emissions only

Demolition -

Grading - Operational emissions only

Architectural Coating - Operational emissions only

Vehicle Trips - Mobile emissions estimated outside of CalEEMod model

Woodstoves - Gas fireplaces for 50% of the 319 residential units

Area Coating - 50 g/L coatings

Energy Use -

Water And Wastewater -

Construction Off-road Equipment Mitigation -

Energy Mitigation - Energy Star % improvement

Water Mitigation -

Waste Mitigation -

Stationary Sources - Emergency Generators and Fire Pumps - Based on Caterpillar C32 generator spec sheet: 1250 kVA @ 0.8 power factor (assumes 100% motor efficiency), which is approximately 1,341 HP

Stationary Sources - Emergency Generators and Fire Pumps EF - EF for CAT C32 Generator

Table Name	Column Name	Default Value	New Value
tblApplianceMitigation	PercentImprovement	30.00	25.00
tblApplianceMitigation	PercentImprovement	15.00	12.00
tblApplianceMitigation	PercentImprovement	50.00	60.00
tblApplianceMitigation	PercentImprovement	15.00	9.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	1,715.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	5,144.00	0.00
tblArchitecturalCoating	ConstArea_Parking	6,307.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	329,770.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	989,310.00	0.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	NumDays	2.00	0.00
tblConstructionPhase	NumDays	100.00	0.00
tblConstructionPhase	NumDays	5.00	0.00
tblConstructionPhase	NumDays	5.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	407.15	160.00
tblFireplaces	NumberNoFireplace	47.90	319.00
tblFireplaces	NumberWood	23.95	0.00
tblLandUse	LandUseSquareFeet	174,400.00	105,109.00
tblLandUse	LandUseSquareFeet	3,430.00	3,429.00
tblLandUse	LandUseSquareFeet	160,000.00	115,068.00
tblLandUse	LandUseSquareFeet	319,000.00	373,480.00
tblLandUse	LotAcreage	3.92	0.00
tblLandUse	LotAcreage	0.08	0.00
tblLandUse	LotAcreage	2.58	0.63
tblLandUse	LotAcreage	5.15	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.022

tblProjectCharacteristics	CO2IntensityFactor	1227.89	548
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblStationaryGeneratorsPumpsEF	CO_EF	2.60	0.44
tblStationaryGeneratorsPumpsEF	NOX_EF	4.56	7.57
tblStationaryGeneratorsPumpsEF	PM10_EF	0.15	0.04
tblStationaryGeneratorsPumpsEF	PM2_5_EF	0.15	0.04
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	1,341.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	1.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	2.00
tblTripsAndVMT	VendorTripNumber	69.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	390.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	78.00	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TTP	69.00	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	12.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	18.00	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TL	5.90	0.00

tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	HW_TTP	40.20	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	44.00	0.00
tblVehicleTrips	PR_TP	86.00	0.00
tblVehicleTrips	PR_TP	38.00	0.00
tblVehicleTrips	ST_TR	4.98	0.00
tblVehicleTrips	ST_TR	94.36	0.00
tblVehicleTrips	SU_TR	3.65	0.00
tblVehicleTrips	SU_TR	72.16	0.00
tblVehicleTrips	WD_TR	4.20	0.00
tblVehicleTrips	WD_TR	89.95	0.00
tblWoodstoves	NumberCatalytic	23.95	0.00
tblWoodstoves	NumberNoncatalytic	23.95	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	12.4390	5.7634	41.7842	0.0360		0.6484	0.6484		0.6484	0.6484	0.0000	6,847.7233	6,847.7233	0.1983	0.1242	6,889.7023
Energy	0.1538	1.3272	0.6529	8.3900e-003		0.1063	0.1063		0.1063	0.1063		1,678.0630	1,678.0630	0.0322	0.0308	1,688.0348
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Stationary	4.4013	32.6747	1.8992	0.0212		0.1727	0.1727		0.1727	0.1727		2,251.5769	2,251.5769	0.3157		2,259.4687
Total	**16.9941**	**39.7654**	**44.3363**	**0.0655**	**0.0000**	**0.9273**	**0.9273**	**0.0000**	**0.9273**	**0.9273**	**0.0000**	**10,777.3631**	**10,777.3631**	**0.5461**	**0.1550**	**10,837.2058**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	12.4390	5.7634	41.7842	0.0360		0.6484	0.6484		0.6484	0.6484	0.0000	6,847.7233	6,847.7233	0.1983	0.1242	6,889.7023
Energy	0.1538	1.3272	0.6529	8.3900e-003		0.1063	0.1063		0.1063	0.1063		1,678.0630	1,678.0630	0.0322	0.0308	1,688.0348
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Stationary	4.4013	32.6747	1.8992	0.0212		0.1727	0.1727		0.1727	0.1727		2,251.5769	2,251.5769	0.3157		2,259.4687
Total	**16.9941**	**39.7654**	**44.3363**	**0.0655**	**0.0000**	**0.9273**	**0.9273**	**0.0000**	**0.9273**	**0.9273**	**0.0000**	**10,777.3631**	**10,777.3631**	**0.5461**	**0.1550**	**10,837.2058**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	0.00	0.00	0.00		
Apartments High Rise	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
Quality Restaurant	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Apartments High Rise	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Quality Restaurant	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments High Rise	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Enclosed Parking with Elevator	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Quality Restaurant	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1538	1.3272	0.6529	8.3900e-003		0.1063	0.1063		0.1063	0.1063		1,678.0630	1,678.0630	0.0322	0.0308	1,688.0348
NaturalGas Unmitigated	0.1538	1.3272	0.6529	8.3900e-003		0.1063	0.1063		0.1063	0.1063		1,678.0630	1,678.0630	0.0322	0.0308	1,688.0348

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments High Rise	4040.3	0.0436	0.3723	0.1584	2.3800e-003		0.0301	0.0301		0.0301	0.0301		475.3297	475.3297	9.1100e-003	8.7100e-003	478.1544
Apartments High Rise	8055.35	0.0869	0.7424	0.3159	4.7400e-003		0.0600	0.0600		0.0600	0.0600		947.6886	947.6886	0.0182	0.0174	953.3202
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	2167.88	0.0234	0.2125	0.1785	1.2800e-003		0.0162	0.0162		0.0162	0.0162		255.0447	255.0447	4.8900e-003	4.6800e-003	256.5603
Total		**0.1538**	**1.3272**	**0.6529**	**8.4000e-003**		**0.1063**	**0.1063**		**0.1063**	**0.1063**		**1,678.0629**	**1,678.0629**	**0.0322**	**0.0308**	**1,688.0348**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments High Rise	4.0403	0.0436	0.3723	0.1584	2.3800e-003		0.0301	0.0301		0.0301	0.0301		475.3297	475.3297	9.1100e-003	8.7100e-003	478.1544
Apartments High Rise	8.05535	0.0869	0.7424	0.3159	4.7400e-003		0.0600	0.0600		0.0600	0.0600		947.6886	947.6886	0.0182	0.0174	953.3202
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	2.16788	0.0234	0.2125	0.1785	1.2800e-003		0.0162	0.0162		0.0162	0.0162		255.0447	255.0447	4.8900e-003	4.6800e-003	256.5603
Total		**0.1538**	**1.3272**	**0.6529**	**8.4000e-003**		**0.1063**	**0.1063**		**0.1063**	**0.1063**		**1,678.0629**	**1,678.0629**	**0.0322**	**0.0308**	**1,688.0348**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	12.4390	5.7634	41.7842	0.0360		0.6484	0.6484		0.6484	0.6484	0.0000	6,847.7233	6,847.7233	0.1983	0.1242	6,889.7023
Unmitigated	12.4390	5.7634	41.7842	0.0360		0.6484	0.6484		0.6484	0.6484	0.0000	6,847.7233	6,847.7233	0.1983	0.1242	6,889.7023

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.8499					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.7784					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.6212	5.3082	2.2588	0.0339		0.4292	0.4292		0.4292	0.4292	0.0000	6,776.4706	6,776.4706	0.1299	0.1242	6,816.7398
Landscaping	1.1895	0.4552	39.5254	2.0900e-003		0.2192	0.2192		0.2192	0.2192		71.2527	71.2527	0.0684		72.9625
Total	**12.4390**	**5.7634**	**41.7842**	**0.0360**		**0.6484**	**0.6484**		**0.6484**	**0.6484**	**0.0000**	**6,847.7233**	**6,847.7233**	**0.1983**	**0.1242**	**6,889.7023**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.8499					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.7784					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.6212	5.3082	2.2588	0.0339		0.4292	0.4292		0.4292	0.4292	0.0000	6,776.4706	6,776.4706	0.1299	0.1242	6,816.7398
Landscaping	1.1895	0.4552	39.5254	2.0900e-003		0.2192	0.2192		0.2192	0.2192		71.2527	71.2527	0.0684		72.9625
Total	**12.4390**	**5.7634**	**41.7842**	**0.0360**		**0.6484**	**0.6484**		**0.6484**	**0.6484**	**0.0000**	**6,847.7233**	**6,847.7233**	**0.1983**	**0.1242**	**6,889.7023**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	2	1	50	1341	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (750 - 9999 HP)	4.4013	32.6747	1.8992	0.0212		0.1727	0.1727		0.1727	0.1727		2,251.5769	2,251.5769	0.3157		2,259.4687
Total	**4.4013**	**32.6747**	**1.8992**	**0.0212**		**0.1727**	**0.1727**		**0.1727**	**0.1727**		**2,251.5769**	**2,251.5769**	**0.3157**		**2,259.4687**

11.0 Vegetation

1111 Hill St. Mixed-Use Project - Operations

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	436.00	Space	0.00	105,109.00	0
Quality Restaurant	3.43	1000sqft	0.00	3,429.00	0
Apartments High Rise	319.00	Dwelling Unit	0.00	373,480.00	912
Apartments High Rise	160.00	Dwelling Unit	0.63	115,068.00	458

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2026
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	548	**CH4 Intensity (lb/MWhr)**	0.022	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - LADWP intensity factors accounting for RPS

Land Use - Project land uses and square footages; As project's 160 hotel units would be TORS units, they are modeled as multi-family residential units. Parking SF based on approximatley 26,277.2 SF per level.

Construction Phase - Operational emisisons only

Off-road Equipment - architectural coating equip

Off-road Equipment - Electric equip only for Building phase

Off-road Equipment - Demo equip

Off-road Equipment - Grading equip

Off-road Equipment - paving equip

Off-road Equipment - Site prep equip

Trips and VMT - Operational emissions only

Demolition -

Grading - Operational emissions only

Architectural Coating - Operational emissions only

Vehicle Trips - Mobile emissions estimated outside of CalEEMod model

Woodstoves - Gas fireplaces for 50% of the 319 residential units

Area Coating - 50 g/L coatings

Energy Use -

Water And Wastewater -

Construction Off-road Equipment Mitigation -

Energy Mitigation - Energy Star % improvement

Water Mitigation -

Waste Mitigation -

Stationary Sources - Emergency Generators and Fire Pumps - Based on Caterpillar C32 generator spec sheet: 1250 kVA @ 0.8 power factor (assumes 100% motor efficiency), which is approximately 1,341 HP

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tblArchitecturalCoating	ConstArea_Residential_Interior	989,310.00	0.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	NumDays	2.00	0.00
tblConstructionPhase	NumDays	100.00	0.00
tblConstructionPhase	NumDays	5.00	0.00
tblConstructionPhase	NumDays	5.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	407.15	160.00
tblFireplaces	NumberNoFireplace	47.90	319.00
tblFireplaces	NumberWood	23.95	0.00
tblLandUse	LandUseSquareFeet	174,400.00	105,109.00
tblLandUse	LandUseSquareFeet	3,430.00	3,429.00
tblLandUse	LandUseSquareFeet	160,000.00	115,068.00
tblLandUse	LandUseSquareFeet	319,000.00	373,480.00
tblLandUse	LotAcreage	3.92	0.00
tblLandUse	LotAcreage	0.08	0.00
tblLandUse	LotAcreage	2.58	0.63
tblLandUse	LotAcreage	5.15	0.00

tblProjectCharacteristics	CH4IntensityFactor	0.029	0.022
tblProjectCharacteristics	CO2IntensityFactor	1227.89	548
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblStationaryGeneratorsPumpsEF	CO_EF	2.60	0.44
tblStationaryGeneratorsPumpsEF	NOX_EF	4.56	7.57
tblStationaryGeneratorsPumpsEF	PM10_EF	0.15	0.04
tblStationaryGeneratorsPumpsEF	PM2_5_EF	0.15	0.04
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	1,341.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	1.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	2.00
tblTripsAndVMT	VendorTripNumber	69.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	390.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	78.00	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TTP	69.00	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	12.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	18.00	0.00
tblVehicleTrips	HO_TL	8.70	0.00

tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	HW_TTP	40.20	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	44.00	0.00
tblVehicleTrips	PR_TP	86.00	0.00
tblVehicleTrips	PR_TP	38.00	0.00
tblVehicleTrips	ST_TR	4.98	0.00
tblVehicleTrips	ST_TR	94.36	0.00
tblVehicleTrips	SU_TR	3.65	0.00
tblVehicleTrips	SU_TR	72.16	0.00
tblVehicleTrips	WD_TR	4.20	0.00
tblVehicleTrips	WD_TR	89.95	0.00
tblWoodstoves	NumberCatalytic	23.95	0.00
tblWoodstoves	NumberNoncatalytic	23.95	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	12.4390	5.7634	41.7842	0.0360		0.6484	0.6484		0.6484	0.6484	0.0000	6,847.7233	6,847.7233	0.1983	0.1242	6,889.7023
Energy	0.1538	1.3272	0.6529	8.3900e-003		0.1063	0.1063		0.1063	0.1063		1,678.0630	1,678.0630	0.0322	0.0308	1,688.0348
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Stationary	4.4013	32.6747	1.8992	0.0212		0.1727	0.1727		0.1727	0.1727		2,251.5769	2,251.5769	0.3157		2,259.4687
Total	**16.9941**	**39.7654**	**44.3363**	**0.0655**	**0.0000**	**0.9273**	**0.9273**	**0.0000**	**0.9273**	**0.9273**	**0.0000**	**10,777.3631**	**10,777.3631**	**0.5461**	**0.1550**	**10,837.2058**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	12.4390	5.7634	41.7842	0.0360		0.6484	0.6484		0.6484	0.6484	0.0000	6,847.7233	6,847.7233	0.1983	0.1242	6,889.7023
Energy	0.1538	1.3272	0.6529	8.3900e-003		0.1063	0.1063		0.1063	0.1063		1,678.0630	1,678.0630	0.0322	0.0308	1,688.0348
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Stationary	4.4013	32.6747	1.8992	0.0212		0.1727	0.1727		0.1727	0.1727		2,251.5769	2,251.5769	0.3157		2,259.4687
Total	**16.9941**	**39.7654**	**44.3363**	**0.0655**	**0.0000**	**0.9273**	**0.9273**	**0.0000**	**0.9273**	**0.9273**	**0.0000**	**10,777.3631**	**10,777.3631**	**0.5461**	**0.1550**	**10,837.2058**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	0.00	0.00	0.00		
Apartments High Rise	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
Quality Restaurant	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Apartments High Rise	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Quality Restaurant	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments High Rise	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Enclosed Parking with Elevator	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Quality Restaurant	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1538	1.3272	0.6529	8.3900e-003		0.1063	0.1063		0.1063	0.1063		1,678.0630	1,678.0630	0.0322	0.0308	1,688.0348
NaturalGas Unmitigated	0.1538	1.3272	0.6529	8.3900e-003		0.1063	0.1063		0.1063	0.1063		1,678.0630	1,678.0630	0.0322	0.0308	1,688.0348

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments High Rise	4040.3	0.0436	0.3723	0.1584	2.3800e-003		0.0301	0.0301		0.0301	0.0301		475.3297	475.3297	9.1100e-003	8.7100e-003	478.1544
Apartments High Rise	8055.35	0.0869	0.7424	0.3159	4.7400e-003		0.0600	0.0600		0.0600	0.0600		947.6886	947.6886	0.0182	0.0174	953.3202
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	2167.88	0.0234	0.2125	0.1785	1.2800e-003		0.0162	0.0162		0.0162	0.0162		255.0447	255.0447	4.8900e-003	4.6800e-003	256.5603
Total		**0.1538**	**1.3272**	**0.6529**	**8.4000e-003**		**0.1063**	**0.1063**		**0.1063**	**0.1063**		**1,678.0629**	**1,678.0629**	**0.0322**	**0.0308**	**1,688.0348**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments High Rise	4.0403	0.0436	0.3723	0.1584	2.3800e-003		0.0301	0.0301		0.0301	0.0301		475.3297	475.3297	9.1100e-003	8.7100e-003	478.1544
Apartments High Rise	8.05535	0.0869	0.7424	0.3159	4.7400e-003		0.0600	0.0600		0.0600	0.0600		947.6886	947.6886	0.0182	0.0174	953.3202
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	2.16788	0.0234	0.2125	0.1785	1.2800e-003		0.0162	0.0162		0.0162	0.0162		255.0447	255.0447	4.8900e-003	4.6800e-003	256.5603
Total		**0.1538**	**1.3272**	**0.6529**	**8.4000e-003**		**0.1063**	**0.1063**		**0.1063**	**0.1063**		**1,678.0629**	**1,678.0629**	**0.0322**	**0.0308**	**1,688.0348**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	12.4390	5.7634	41.7842	0.0360		0.6484	0.6484		0.6484	0.6484	0.0000	6,847.7233	6,847.7233	0.1983	0.1242	6,889.7023
Unmitigated	12.4390	5.7634	41.7842	0.0360		0.6484	0.6484		0.6484	0.6484	0.0000	6,847.7233	6,847.7233	0.1983	0.1242	6,889.7023

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.8499					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.7784					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.6212	5.3082	2.2588	0.0339		0.4292	0.4292		0.4292	0.4292	0.0000	6,776.4706	6,776.4706	0.1299	0.1242	6,816.7398
Landscaping	1.1895	0.4552	39.5254	2.0900e-003		0.2192	0.2192		0.2192	0.2192		71.2527	71.2527	0.0684		72.9625
Total	**12.4390**	**5.7634**	**41.7842**	**0.0360**		**0.6484**	**0.6484**		**0.6484**	**0.6484**	**0.0000**	**6,847.7233**	**6,847.7233**	**0.1983**	**0.1242**	**6,889.7023**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.8499					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.7784					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Hearth	0.6212	5.3082	2.2588	0.0339		0.4292	0.4292		0.4292	0.4292	0.0000	6,776.4706	6,776.4706	0.1299	0.1242	6,816.7398
Landscaping	1.1895	0.4552	39.5254	2.0900e-003		0.2192	0.2192		0.2192	0.2192		71.2527	71.2527	0.0684		72.9625
Total	**12.4390**	**5.7634**	**41.7842**	**0.0360**		**0.6484**	**0.6484**		**0.6484**	**0.6484**	**0.0000**	**6,847.7233**	**6,847.7233**	**0.1983**	**0.1242**	**6,889.7023**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	2	1	50	1341	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (750 - 9999 HP)	4.4013	32.6747	1.8992	0.0212		0.1727	0.1727		0.1727	0.1727		2,251.5769	2,251.5769	0.3157		2,259.4687
Total	**4.4013**	**32.6747**	**1.8992**	**0.0212**		**0.1727**	**0.1727**		**0.1727**	**0.1727**		**2,251.5769**	**2,251.5769**	**0.3157**		**2,259.4687**

11.0 Vegetation

A-2-2: Operations GHG Emissions

Project Operations GHG Summary

Source Category	$MTCO_2e$/year
Area	85.57
Electricity[1]	663.54
Natural Gas	279.47
Mobile[2]	550.07
Stationary	51.24
Waste	26.97
Water	173.50
Total Operational Emissions	**1,830.38**
Amortized Construction (30-years)	118.76
Total Project Emissions	**1,949.15**

[1] Includes GHG emissions from elecriticty and water consumption from swimming pool operations

[2] As the project is a transit priority project that qualifies for SB 375 CEQA streamlining, the mobile-related GHG emissions presented in this table exclude those generated from passenger cars and light-duty trucks.

1111 Hill St. Mixed-Use Project - Operations - Los Angeles-South Coast County, Annual

1111 Hill St. Mixed-Use Project - Operations

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	436.00	Space	0.00	105,109.00	0
Quality Restaurant	3.43	1000sqft	0.00	3,429.00	0
Apartments High Rise	319.00	Dwelling Unit	0.00	373,480.00	912
Apartments High Rise	160.00	Dwelling Unit	0.63	115,068.00	458

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2026
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	548	**CH4 Intensity (lb/MWhr)**	0.022	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - LADWP intensity factors accounting for RPS

Land Use - Project land uses and square footages; As project's 160 hotel units would be TORS units, they are modeled as multi-family residential units. Parking SF based on approximatley 26,277.2 SF per level.

Construction Phase - Operational emisisons only

Off-road Equipment - architectural coating equip

Off-road Equipment - Electric equip only for Building phase

Off-road Equipment - Demo equip

Off-road Equipment - Grading equip

Off-road Equipment - paving equip

Off-road Equipment - Site prep equip

Trips and VMT - Operational emissions only

Demolition -

Grading - Operational emissions only

Architectural Coating - Operational emissions only

Vehicle Trips - Mobile emissions estimated outside of CalEEMod model

Woodstoves - Gas fireplaces for 50% of the 319 residential units

Area Coating - 50 g/L coatings

Energy Use -

Water And Wastewater -

Construction Off-road Equipment Mitigation -

Energy Mitigation - Energy Star % improvement

Water Mitigation -

Waste Mitigation -

Stationary Sources - Emergency Generators and Fire Pumps - Based on Caterpillar C32 generator spec sheet: 1250 kVA @ 0.8 power factor (assumes 100% motor efficiency), which is approximately 1,341 HP

Stationary Sources - Emergency Generators and Fire Pumps EF - EF for CAT C32 Generator

Table Name	Column Name	Default Value	New Value
tblApplianceMitigation	PercentImprovement	30.00	25.00
tblApplianceMitigation	PercentImprovement	15.00	12.00
tblApplianceMitigation	PercentImprovement	50.00	60.00
tblApplianceMitigation	PercentImprovement	15.00	9.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	1,715.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	5,144.00	0.00
tblArchitecturalCoating	ConstArea_Parking	6,307.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	329,770.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	989,310.00	0.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	NumDays	2.00	0.00
tblConstructionPhase	NumDays	100.00	0.00
tblConstructionPhase	NumDays	5.00	0.00
tblConstructionPhase	NumDays	5.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	407.15	160.00
tblFireplaces	NumberNoFireplace	47.90	319.00
tblFireplaces	NumberWood	23.95	0.00
tblLandUse	LandUseSquareFeet	174,400.00	105,109.00
tblLandUse	LandUseSquareFeet	3,430.00	3,429.00
tblLandUse	LandUseSquareFeet	160,000.00	115,068.00
tblLandUse	LandUseSquareFeet	319,000.00	373,480.00
tblLandUse	LotAcreage	3.92	0.00
tblLandUse	LotAcreage	0.08	0.00
tblLandUse	LotAcreage	2.58	0.63
tblLandUse	LotAcreage	5.15	0.00

tblProjectCharacteristics	CH4IntensityFactor	0.029	0.022
tblProjectCharacteristics	CO2IntensityFactor	1227.89	548
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblStationaryGeneratorsPumpsEF	CO_EF	2.60	0.44
tblStationaryGeneratorsPumpsEF	NOX_EF	4.56	7.57
tblStationaryGeneratorsPumpsEF	PM10_EF	0.15	0.04
tblStationaryGeneratorsPumpsEF	PM2_5_EF	0.15	0.04
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	1,341.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	1.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	2.00
tblTripsAndVMT	VendorTripNumber	69.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	390.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	78.00	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TTP	69.00	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	12.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	18.00	0.00
tblVehicleTrips	HO_TL	8.70	0.00

tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	HW_TTP	40.20	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	44.00	0.00
tblVehicleTrips	PR_TP	86.00	0.00
tblVehicleTrips	PR_TP	38.00	0.00
tblVehicleTrips	ST_TR	4.98	0.00
tblVehicleTrips	ST_TR	94.36	0.00
tblVehicleTrips	SU_TR	3.65	0.00
tblVehicleTrips	SU_TR	72.16	0.00
tblVehicleTrips	WD_TR	4.20	0.00
tblVehicleTrips	WD_TR	89.95	0.00
tblWoodstoves	NumberCatalytic	23.95	0.00
tblWoodstoves	NumberNoncatalytic	23.95	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.0961	0.1233	4.9689	6.8000e-004		0.0328	0.0328		0.0328	0.0328	0.0000	84.9238	84.9238	9.2300e-003	1.4100e-003	85.5743
Energy	0.0281	0.2422	0.1192	1.5300e-003		0.0194	0.0194		0.0194	0.0194	0.0000	940.0520	940.0520	0.0319	8.7200e-003	943.4479
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Stationary	0.1100	0.8169	0.0475	5.3000e-004		4.3200e-003	4.3200e-003		4.3200e-003	4.3200e-003	0.0000	51.0649	51.0649	7.1600e-003	0.0000	51.2439
Waste						0.0000	0.0000		0.0000	0.0000	45.3624	0.0000	45.3624	2.6808	0.0000	112.3834
Water						0.0000	0.0000		0.0000	0.0000	10.2314	158.8986	169.1300	1.0572	0.0257	203.2147
Total	**2.2342**	**1.1823**	**5.1355**	**2.7400e-003**	**0.0000**	**0.0565**	**0.0565**	**0.0000**	**0.0565**	**0.0565**	**55.5938**	**1,234.9393**	**1,290.5331**	**3.7864**	**0.0358**	**1,395.8642**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.0961	0.1233	4.9689	6.8000e-004		0.0328	0.0328		0.0328	0.0328	0.0000	84.9238	84.9238	9.2300e-003	1.4100e-003	85.5743
Energy	0.0281	0.2422	0.1192	1.5300e-003		0.0194	0.0194		0.0194	0.0194	0.0000	932.2866	932.2866	0.0316	8.6800e-003	935.6621
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Stationary	0.1100	0.8169	0.0475	5.3000e-004		4.3200e-003	4.3200e-003		4.3200e-003	4.3200e-003	0.0000	51.0649	51.0649	7.1600e-003	0.0000	51.2439
Waste						0.0000	0.0000		0.0000	0.0000	10.8870	0.0000	10.8870	0.6434	0.0000	26.9720
Water						0.0000	0.0000		0.0000	0.0000	8.1851	138.0226	146.2077	0.8462	0.0206	173.5041
Total	**2.2342**	**1.1823**	**5.1355**	**2.7400e-003**	**0.0000**	**0.0565**	**0.0565**	**0.0000**	**0.0565**	**0.0565**	**19.0721**	**1,206.2979**	**1,225.3700**	**1.5376**	**0.0307**	**1,272.9564**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**65.69**	**2.32**	**5.05**	**59.39**	**14.27**	**8.81**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	0.00	0.00	0.00		
Apartments High Rise	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
Quality Restaurant	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Apartments High Rise	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Quality Restaurant	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments High Rise	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Enclosed Parking with Elevator	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Quality Restaurant	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	654.4645	654.4645	0.0263	3.5800e-003	656.1890
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	662.2298	662.2298	0.0266	3.6300e-003	663.9748
NaturalGas Mitigated	0.0281	0.2422	0.1192	1.5300e-003		0.0194	0.0194		0.0194	0.0194	0.0000	277.8221	277.8221	5.3200e-003	5.0900e-003	279.4731
NaturalGas Unmitigated	0.0281	0.2422	0.1192	1.5300e-003		0.0194	0.0194		0.0194	0.0194	0.0000	277.8221	277.8221	5.3200e-003	5.0900e-003	279.4731

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	1.47471e+006	7.9500e-003	0.0680	0.0289	4.3000e-004		5.4900e-003	5.4900e-003		5.4900e-003	5.4900e-003	0.0000	78.6962	78.6962	1.5100e-003	1.4400e-003	79.1638
Apartments High Rise	2.9402e+006	0.0159	0.1355	0.0577	8.6000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	156.9005	156.9005	3.0100e-003	2.8800e-003	157.8329
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	791276	4.2700e-003	0.0388	0.0326	2.3000e-004		2.9500e-003	2.9500e-003		2.9500e-003	2.9500e-003	0.0000	42.2255	42.2255	8.1000e-004	7.7000e-004	42.4764
Total		**0.0281**	**0.2422**	**0.1192**	**1.5200e-003**		**0.0194**	**0.0194**		**0.0194**	**0.0194**	**0.0000**	**277.8221**	**277.8221**	**5.3300e-003**	**5.0900e-003**	**279.4731**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	1.47471e+006	7.9500e-003	0.0680	0.0289	4.3000e-004		5.4900e-003	5.4900e-003		5.4900e-003	5.4900e-003	0.0000	78.6962	78.6962	1.5100e-003	1.4400e-003	79.1638
Apartments High Rise	2.9402e+006	0.0159	0.1355	0.0577	8.6000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	156.9005	156.9005	3.0100e-003	2.8800e-003	157.8329
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	791276	4.2700e-003	0.0388	0.0326	2.3000e-004		2.9500e-003	2.9500e-003		2.9500e-003	2.9500e-003	0.0000	42.2255	42.2255	8.1000e-004	7.7000e-004	42.4764
Total		**0.0281**	**0.2422**	**0.1192**	**1.5200e-003**		**0.0194**	**0.0194**		**0.0194**	**0.0194**	**0.0000**	**277.8221**	**277.8221**	**5.3300e-003**	**5.0900e-003**	**279.4731**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	1.26327e+006	314.0082	0.0126	1.7200e-003	314.8356
Apartments High Rise	633613	157.4963	6.3200e-003	8.6000e-004	157.9113
Enclosed Parking with Elevator	615939	153.1030	6.1500e-003	8.4000e-004	153.5065
Quality Restaurant	151356	37.6224	1.5100e-003	2.1000e-004	37.7215
Total		**662.2298**	**0.0266**	**3.6300e-003**	**663.9748**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	1.24246e+006	308.8367	0.0124	1.6900e-003	309.6505
Apartments High Rise	623178	154.9024	6.2200e-003	8.5000e-004	155.3106
Enclosed Parking with Elevator	615939	153.1030	6.1500e-003	8.4000e-004	153.5065
Quality Restaurant	151356	37.6224	1.5100e-003	2.1000e-004	37.7215
Total		**654.4645**	**0.0263**	**3.5900e-003**	**656.1890**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.0961	0.1233	4.9689	6.8000e-004		0.0328	0.0328		0.0328	0.0328	0.0000	84.9238	84.9238	9.2300e-003	1.4100e-003	85.5743
Unmitigated	2.0961	0.1233	4.9689	6.8000e-004		0.0328	0.0328		0.0328	0.0328	0.0000	84.9238	84.9238	9.2300e-003	1.4100e-003	85.5743

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1551					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7846					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	7.7600e-003	0.0664	0.0282	4.2000e-004		5.3600e-003	5.3600e-003		5.3600e-003	5.3600e-003	0.0000	76.8439	76.8439	1.4700e-003	1.4100e-003	77.3005
Landscaping	0.1487	0.0569	4.9407	2.6000e-004		0.0274	0.0274		0.0274	0.0274	0.0000	8.0799	8.0799	7.7600e-003	0.0000	8.2738
Total	**2.0961**	**0.1233**	**4.9689**	**6.8000e-004**		**0.0328**	**0.0328**		**0.0328**	**0.0328**	**0.0000**	**84.9238**	**84.9238**	**9.2300e-003**	**1.4100e-003**	**85.5743**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1551					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7846					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	7.7600e-003	0.0664	0.0282	4.2000e-004		5.3600e-003	5.3600e-003		5.3600e-003	5.3600e-003	0.0000	76.8439	76.8439	1.4700e-003	1.4100e-003	77.3005
Landscaping	0.1487	0.0569	4.9407	2.6000e-004		0.0274	0.0274		0.0274	0.0274	0.0000	8.0799	8.0799	7.7600e-003	0.0000	8.2738
Total	**2.0961**	**0.1233**	**4.9689**	**6.8000e-004**		**0.0328**	**0.0328**		**0.0328**	**0.0328**	**0.0000**	**84.9238**	**84.9238**	**9.2300e-003**	**1.4100e-003**	**85.5743**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	146.2077	0.8462	0.0206	173.5041
Unmitigated	169.1300	1.0572	0.0257	203.2147

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	31.2088 / 19.6751	165.2465	1.0232	0.0249	198.2349
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1.04112 / 0.0664545	3.8835	0.0341	8.2000e-004	4.9797
Total		**169.1300**	**1.0572**	**0.0257**	**203.2147**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	24.967 / 19.6751	143.0642	0.8190	0.0200	169.4835
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	0.832897 / 0.0664545	3.1435	0.0273	6.6000e-004	4.0206
Total		**146.2077**	**0.8462**	**0.0206**	**173.5041**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	10.8870	0.6434	0.0000	26.9720
Unmitigated	45.3624	2.6808	0.0000	112.3834

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	220.34	44.7270	2.6433	0.0000	110.8093
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	3.13	0.6354	0.0376	0.0000	1.5741
Total		**45.3624**	**2.6808**	**0.0000**	**112.3834**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	52.8816	10.7345	0.6344	0.0000	26.5942
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	0.7512	0.1525	9.0100e-003	0.0000	0.3778
Total		**10.8870**	**0.6434**	**0.0000**	**26.9720**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	2	1	50	1341	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (750 - 9999 HP)	0.1100	0.8169	0.0475	5.3000e-004		4.3200e-003	4.3200e-003		4.3200e-003	4.3200e-003	0.0000	51.0649	51.0649	7.1600e-003	0.0000	51.2439
Total	**0.1100**	**0.8169**	**0.0475**	**5.3000e-004**		**4.3200e-003**	**4.3200e-003**		**4.3200e-003**	**4.3200e-003**	**0.0000**	**51.0649**	**51.0649**	**7.1600e-003**	**0.0000**	**51.2439**

11.0 Vegetation

A-2-3: Mobile Emissions

MOBILE EMISSIONS

				Running Exhaust Emission Factor (g/mile)[1,2]												
Scenario Year / EF Year[5]	Daily VMT (miles)[6]	Daily Trips[6]	Days per Year[7]	ROG	NO_X	CO	SO_X	PM_{10} Fugitive	PM_{10} Exhaust	PM_{10} Total	$PM_{2.5}$ Fugitive	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Total	CO_2	CH_4	N_2O
2026	11,674	2,001	347	0.0238	0.1509	0.8067	0.0032	0.3498	0.0023	0.3521	0.0934	0.0022	0.0956	336.8642	0.0163	0.0145

Mobile Emissions (excluding passenger vehicles and light-duty trucks)

Fleet Mix (All Vehicle Categories):	100.00%
Light Duty portion of Fleet Mix:	79.67%
Non-Light Duty Portion:	20.33%

				Running Exhaust Emission Factor (g/mile)[4]												
Scenario Year / EF Year[5]	Daily VMT (miles)	Daily Trips	Days per Year[7]	ROG	NO_X	CO	SO_X	PM_{10} Fugitive	PM_{10} Exhaust	PM_{10} Total	$PM_{2.5}$ Fugitive	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Total	CO_2	CH_4	N_2O
2026	2,373	407	347											613.8566	0.0704	0.0545

Notes:

1. Emission factors represent weighted emission factor for all vehicle categories. Emission factors generated from EMFAC2017; County: Los Angeles; Season: Annual; Vehicle Categories: EMFAC2007; Model Year: Aggregate; Speed: Aggregate; Fuel: All fuel types.

2. Running emission factors account for exhaust and fugitive dust from brake wear, tire wear, and road dust from paved roads.

3. Non-running emission factors account for additional exahust and evaporative processes. Exhaust: Engine idling and starting. Evaporative: Runloss, Restloss, Diurnal, Hotsoak (ROG only).

4. Values for CO2, CH4, and N2O excludes passenger cars and light-duty trucks for GHG analysis

5. Emissions based on project buildout year of 2026.

6. Value provided in Traffic Study by Fehr & Peers

7. Number of operational days based on CARB Methodology
Climate Change Draft Scoping Plan

8. Global Warming Potentials based on IPCC AR4.

EF = Emission Factor

MOBILE EMISSIONS

				Non-Running Emission Factors (g/trip)[1,3,4]												
Scenario Year / EF Year[5]	Daily VMT (miles)[6]	Daily Trips[6]	Days per Year[7]	ROG	NO_X	CO	SO_X	PM_{10} Fugitive	PM_{10} Exhaust	PM_{10} Total	$PM_{2.5}$ Fugitive	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Total	CO_2	CH_4	N_2O
2026	11,674	2,001	347	0.6558	0.4233	2.1142	0.0008	0.0000	0.0016	0.0016	0.0000	0.0015	0.0015	81.7877	0.0415	0.0263

Mobile Emissions (excluding passenger vehicles and light-duty trucks)

Fleet Mix (All Vehicle Categories): 100.00%
Light Duty portion of Fleet Mix: 79.67%
Non-Light Duty Portion: 20.33%

				Non-Running Emission Factors (g/trip)[4]												
Scenario Year / EF Year[5]	Daily VMT (miles)	Daily Trips	Days per Year[7]	ROG	NO_X	CO	SO_X	PM_{10} Fugitive	PM_{10} Exhaust	PM_{10} Total	$PM_{2.5}$ Fugitive	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Total	CO_2	CH_4	N_2O
2026	2,373	407	347											197.1688	0.0451	0.0427

Notes:

1. Emission factors represent weighted emission factor for all vehicle categories. Emission factors generated from EMFAC2017; County: Los Angeles; Season: Annual; Vehicle Categories: EMFAC2007; Model Year: Aggregate; Speed: Aggregate; Fuel: All fuel types.

2. Running emission factors account for exhaust and fugitive dust from brake wear, tire wear, and road dust from paved roads.

3. Non-running emission factors account for additional exahust and evaporative processes. Exhaust: Engine idling and starting. Evaporative: Runloss, Restloss, Diurnal, Hotsoak (ROG only).

4. Values for CO2, CH4, and N2O excludes passenger cars and light-duty trucks for GHG analysis

5. Emissions based on project buildout year of 2026.

6. Value provided in Traffic Study by Fehr & Peers

7. Number of operational days based on CARB Methodology
Climate Change Draft Scoping Plan

8. Global Warming Potentials based on IPCC AR4.

EF = Emission Factor

MOBILE EMISSIONS

				Emissions (lb/day)												
Scenario Year / EF Year[5]	Daily VMT (miles)[6]	Daily Trips[6]	Days per Year[7]	ROG	NO_X	CO	SO_X	PM_{10} Fugitive	PM_{10} Exhaust	PM_{10} Total	$PM_{2.5}$ Fugitive	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Total	CO_2	CH_4	N_2O
2026	11,674	2,001	347	3.51	5.75	30.09	0.08	9.00	0.07	9.07	2.40	0.06	2.47	9,030.60	0.60	0.49

Mobile Emissions (excluding passenger vehicles and light-duty trucks)

Fleet Mix (All Vehicle Categories): 100.00%
Light Duty portion of Fleet Mix: 79.67%
Non-Light Duty Portion: 20.33%

				Emissions (lb/day)												
Scenario Year / EF Year[5]	Daily VMT (miles)	Daily Trips	Days per Year[7]	ROG	NO_X	CO	SO_X	PM_{10} Fugitive	PM_{10} Exhaust	PM_{10} Total	$PM_{2.5}$ Fugitive	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Total	CO_2	CH_4	N_2O
2026	2,373	407	347											3,388.30	0.41	0.32

Notes:

1. Emission factors represent weighted emission factor for all vehicle categories. Emission factors generated from EMFAC2017; County: Los Angeles; Season: Annual; Vehicle Categories: EMFAC2007; Model Year: Aggregate; Speed: Aggregate; Fuel: All fuel types.

2. Running emission factors account for exhaust and fugitive dust from brake wear, tire wear, and road dust from paved roads.

3. Non-running emission factors account for additional exahust and evaporative processes. Exhaust: Engine idling and starting. Evaporative: Runloss, Restloss, Diurnal, Hotsoak (ROG only).

4. Values for CO2, CH4, and N2O excludes passenger cars and light-duty trucks for GHG analysis

5. Emissions based on project buildout year of 2026.

6. Value provided in Traffic Study by Fehr & Peers

7. Number of operational days based on CARB Methodology
Climate Change Draft Scoping Plan

8. Global Warming Potentials based on IPCC AR4.

EF = Emission Factor

MOBILE EMISSIONS

				Annual Metric Tons[8]			
Scenario Year / EF Year[5]	Daily VMT (miles)[6]	Daily Trips[6]	Days per Year[7]	CO_2	CH_4	N_2O	CO_2e
2026	11,674	2,001	347	1,421.39	0.09	0.08	1,446.73

Mobile Emissions (excluding passenger vehicles and light-duty trucks)

Fleet Mix (All Vehicle Categories): 100.00%
Light Duty portion of Fleet Mix: 79.67%
Non-Light Duty Portion: 20.33%

				Annual Metric Tons[8]			
Scenario Year / EF Year[5]	Daily VMT (miles)	Daily Trips	Days per Year[7]	CO_2	CH_4	N_2O	CO_2e
2026	2,373	407	347	533.31	0.06	0.05	550.07

Notes:

1. Emission factors represent weighted emission factor for all vehicle categories. Emission factors generated from EMFAC2017; County: Los Angeles; Season: Annual; Vehicle Categories: EMFAC2007; Model Year: Aggregate; Speed: Aggregate; Fuel: All fuel types.

2. Running emission factors account for exhaust and fugitive dust from brake wear, tire wear, and road dust from paved roads.

3. Non-running emission factors account for additional exahust and evaporative processes. Exhaust: Engine idling and starting. Evaporative: Runloss, Restloss, Diurnal, Hotsoak (ROG only).

4. Values for CO2, CH4, and N2O excludes passenger cars and light-duty trucks for GHG analysis

5. Emissions based on project buildout year of 2026.

6. Value provided in Traffic Study by Fehr & Peers

7. Number of operational days based on CARB Methodology
Climate Change Draft Scoping Plan

8. Global Warming Potentials based on IPCC AR4.

EF = Emission Factor

A-2-4: Intersection Volume Counts for CO Analysis

Project Intersection Volumes for CO Hotspot Analysis

			Future Plus Project			
Int	**North/South**	**East/West**	**Peak AM**	**Peak PM**	**Total**	**Daily Volume**
1	Olive Street	11th Street	2,347	2,489	4,836	24,180
2	Olive Street	12th Street	1,926	2,224	4,150	20,750
3	Hill Street	11th Street	1,392	2,603	3,995	19,975
4	Hill Street	12th Street	1,371	2,110	3,481	17,405
					Maximum	24,180

Peak AM and PM values represent 20 percent of daily volume.

			AM Individual Peak Hour - Future (2026) plus Project Scenario											
Int	**North/South**	**East/West**	**SR**	**ST**	**SL**	**WR**	**WT**	**WL**	**NR**	**NT**	**NL**	**ER**	**ET**	**EL**	**TOTAL**
1	Olive Street	11th Street	0	0	0	186	276	0	0	1,602	283	0	0	0	2,347
2	Olive Street	12th Street	0	0	0	0	0	0	69	1,495	0	0	199	163	1,926
3	Hill Street	11th Street	76	461	0	58	201	70	0	471	55	0	0	0	1,392
4	Hill Street	12th Street	0	514	80	0	0	0	64	450	0	53	147	63	1,371

			PM Individual Peak Hour - Future (2026) plus Project Scenario											
Int	**North/South**	**East/West**	**SR**	**ST**	**SL**	**WR**	**WT**	**WL**	**NR**	**NT**	**NL**	**ER**	**ET**	**EL**	**TOTAL**
1	Olive Street	11th Street	0	0	0	217	544	0	0	1,381	347	0	0	0	2,489
2	Olive Street	12th Street	0	0	0	0	0	0	48	1,550	0	0	290	336	2,224
3	Hill Street	11th Street	178	897	0	97	509	145	0	699	78	0	0	0	2,603
4	Hill Street	12th Street	0	901	91	0	0	0	68	682	0	37	237	94	2,110

A-2-5: GHG Emissions Associated with Swimming Pool

Swimming Pool Information

Water Use

Pool Capacity (gal)[1]	Pool Capacity (ft^3)	Depth of Pool (ft)[1]	Area of Pool (ft^2)	Daily Water Use (gal per day)[1]	Days per year	Annual Water Use (gal per day)	Annual Refill (gal/year)[2]	Total Water Usage (gal)	Total Water Usage (Mgal)	Annual Emissions ($MTCO_2e)_6$
74,650	9,979	5	1,996	205	365	74,825	74,650	149,475	0.149	0.6885

Electricity Use		LADWP Intensity Factors (lb/MWh)[4]			Global Warming Potentials[5]			Metric Tons			
Annual Electricity Consumption (kWh)[3]	Annual Electricity Consumption (MWh)	CO_2	CH_4	N_2O	CO_2	CH_4	N_2O	CO_2	CH_4	N_2O	CO_2e
26,736	26.74	548	0.022	0.003	1	25	298	6.65	0.00	0.00	6.66

Notes:

1 Values based on PSOMAS Utilities Memorandum.

2 Utilities memo assumes pool would be drained and filled once per year for maintenance.

3 Electricity consumption based on Commercial Pump Calculator from Pentair

4 Intensity factors based on LADWP's RPS requirements for 2026.

5 GWPs based on IPCC AR 4.

6 GHG emissions associated with pool water use estimated in CalEEMod.

Total Annual Emissions ($MTCO_2e$): 7.35

1111 South Hill Street-Swimming Pool - Los Angeles-South Coast County, Annual

1111 South Hill Street-Swimming Pool

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Recreational Swimming Pool	2.00	1000sqft	0.05	1,996.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2026
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	548	**CH4 Intensity (lb/MWhr)**	0.022	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - LADWP intensity factors accounting for RPS

Land Use -

Vehicle Trips - No mobile emissions associated with pool amenity.

Energy Use -

Water And Wastewater - Total water use for swimming pool based on Utilites Memo.

Solid Waste - No solid waste mobile emissions associated with pool amenity.

Landscape Equipment - No landscaping emissions associated with pool amenity.

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.022
tblProjectCharacteristics	CO2IntensityFactor	1227.89	548
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblSolidWaste	SolidWasteGenerationRate	11.40	0.00
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	WD_TR	33.82	0.00
tblWater	IndoorWaterUseRate	118,286.29	149,475.00
tblWater	OutdoorWaterUseRate	72,498.05	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0474	0.4838	0.5312	4.8900e-003	1.2000e-004	0.6885
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0474**	**0.4838**	**0.5312**	**4.8900e-003**	**1.2000e-004**	**0.6885**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0474	0.4838	0.5312	4.8900e-003	1.2000e-004	0.6885
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0474**	**0.4838**	**0.5312**	**4.8900e-003**	**1.2000e-004**	**0.6885**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.5312	4.8900e-003	1.2000e-004	0.6885
Unmitigated	0.5312	4.8900e-003	1.2000e-004	0.6885

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Recreational Swimming Pool	0.149475 / 0	0.5312	4.8900e-003	1.2000e-004	0.6885
Total		**0.5312**	**4.8900e-003**	**1.2000e-004**	**0.6885**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Recreational Swimming Pool	0.149475 / 0	0.5312	4.8900e-003	1.2000e-004	0.6885
Total		**0.5312**	**4.8900e-003**	**1.2000e-004**	**0.6885**

For Commercial Pools

Pool Pump Savings Calculator

COMMERCIAL POOL PUMP CALCULATOR

See how much you can save with an IntelliFlo® variable speed pump for your Commercial pool.

COMMERCIAL POOL PUMP SAVINGS CALCULATOR

Pool Information

Operational Characteristics

Pool Size	76000 Gal
Turn Over Time	6 Hrs
Minimum Required Flow Rate	211.1 GPM
Min. Flow Rate Required All Day	Yes
Operational Days Per Year	365 Days
Cost of Electricity	0.14 /kWh

Hydraulic and Head Loss Characteristics*

HP of Existing Pump	3 Hp
Filter Type	Cartridge
Pipe Size (suction)	2 Inches
Pipe Size (return)	2 Inches
Head Loss Characteristics	Medium
Estimated Flow Rate	101.7 GPM

Intermediate Results

	Standard Pump Existing Operational Costs	IntelliFlo Variable Speed Pump Estimated Operational Costs
Power Demand (Open)	3.05 kW	2.720 kW
Energy Per Day (Open)	73.25 kWh/Day	65.3 kWh/Day
Cost Per Day	10.25 $/Day	9.14 $/Day
Energy Per Year	26,735.5 kWh/Year	23,827.2 kWh/Year
Cost Per Year	3,742.97 $/Year	3,335.81 $/Year

Warning: Existing pump appears to be insufficient to provide the minimum required flowrate. Savings estimates may not be realistic since the variable speed data is based on meeting the minimum required flowrate.

Warning: Variable speed pump appears to be insufficient to provide the minimum required flowrate.

Savings Summary

Savings Per Day

Energy Per Day	0 kWh/Day
Savings Per Day	0 $/Day

Savings Per Year

Energy Per Year	0 kWh/Year
Savings Per Year	0 $/Year

Annual Reduction in Energy Cost is 0 %

*This calculator is based on standardized performance data as supplied to the California Energy Commission per the Title 20 Appliance Efficiency Regulations. The pump's actual performance and subsequent energy consumption is dependent upon various characteristics of the plumbing system, including but not limited to; pipe size, pipe lengths, filter type, fittings, and auxiliary equipment, etc. The data (as published in the CEC database) is limited to pump performance as set forth in Curve A or Curve C below:

- Curve A = ~High head – Pump performance is based on the system head loss curve representing 60 GPM at 60 feet of head which is typical of a newly constructed pool plumbed with 2" PVC pipe.
- Curve C = ~Medium head – Pump performance is based on the system head loss curve representing 86 GPM at 60 feet of head which is typical of a newly constructed pool plumbed with 2 ½" PVC pipe.

The input variables in this calculator; Filter type, Pipe size (suction and return), are offered as an aid to help determine whether the pool has head loss characteristics closer to that of a Curve A or Curve C system. These inputs may not represent actual performance based on these specific variables.

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A-3: Construction Health Risk Assessment

Area Poly Source

	Scaling factor (g/s)					
Receptor	3RDTRI_BIRTH	0<2	2<9	9<16	16<30	16-70
Resident	2.95E-03	4.62E-04	3.38E-04			

Line Area Source

	Scaling factor (g/s)					
Receptor	3RDTRI_BIRTH	0<2	2<9	9<16	16<30	16-70
Resident	2.87E-05	1.01E-05	5.88E-06			

		Scaled Concentration ug/m3					
Receptor Type	Rec_ID	3RDTRI_BIRTH	0<2	2<9	9<16	16<30	16-70
Resident	Res_Highest	1.14E-01	1.80E-02	1.31E-02	0.00E+00	0.00E+00	0.00E+00
Resident	Res_2ndHighest	1.84E-02	2.88E-03	2.10E-03	0.00E+00	0.00E+00	0.00E+00
Resident	Res_3rdHighest	1.03E-02	1.62E-03	1.18E-03	0.00E+00	0.00E+00	0.00E+00
Resident	Res_4thHighest	6.39E-03	1.00E-03	7.32E-04	0.00E+00	0.00E+00	0.00E+00
Resident	Res_5thHighest	5.84E-03	9.17E-04	6.69E-04	0.00E+00	0.00E+00	0.00E+00
Worker	Work_Highest	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Student	Student	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Childcare	Childcare	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

			Cancer Risk							Chronic HI
Pollutant	Receptor Type	Receptor	3RDTRI_BIRTH	0<2	2<9	9<16	16<30	16-70	Total	Risk Per Million	(max)
DPM	Resident	Res_Highest	1.32E-06	5.01E-06	1.94E-07	0.00E+00	0.00E+00	0.00E+00	6.52E-06	6.52	2.28E-02
DPM	Resident	Res_2ndHighest	2.12E-07	8.05E-07	3.11E-08	0.00E+00	0.00E+00	0.00E+00	1.05E-06	1.05	3.67E-03
DPM	Resident	Res_3rdHighest	1.19E-07	4.52E-07	1.75E-08	0.00E+00	0.00E+00	0.00E+00	5.89E-07	0.59	2.06E-03
DPM	Resident	Res_4thHighest	7.39E-08	2.80E-07	1.08E-08	0.00E+00	0.00E+00	0.00E+00	3.65E-07	0.36	1.28E-03
DPM	Resident	Res_5thHighest	6.75E-08	2.56E-07	9.90E-09	0.00E+00	0.00E+00	0.00E+00	3.33E-07	0.33	1.17E-03

Cancer Risk Inputs (Resident)

Age Category	BR/BW (L/kg-day)	A	EF, days/365 days	CF	CPF, DPM ([mg/kg-day]-1)	ASF	ED (years)	AT (years)	FAH
3RDTRI_BIRTH	361	1	0.96	0.000001	1.1	10	0.25	70	0.85
0<2	1090	1	0.96	0.000001	1.1	10	2	70	0.85
2<9	631	1	0.96	0.000001	1.1	3	0.72	70	0.72
9<16	572	1	0.96	0.000001	1.1	3	0	70	0.72
16<30	261	1	0.96	0.000001	1.1	1	0	70	0.73
16-70	233	1	0.96	0.000001	1.1	1	0	70	0.73

BR/BW	Daily Breathing Rate
A	Inhalation Absorption Factor
EF	Expsoure Frequency
CF	Conversion Factor
CPF	Cancer Potency Factor
ASF	Age Sensitivity Factor
ED	Exposure Duration
AT	Average Time (years)
FAH	Fraction of Time at Home
WAF	Worker Adjustment Factor

Hazard Index

Chronic Inhalation Reference Exposure Level, respiratory, DPM: 5

SUMMARY OF DPM

	ONSITE DPM - OFFROAD																			
	2022					2023					2024					2025				
Phase	Start date	End date	Days (2022)	DPM (tons)	DPM (grams)	Start date	End date	Days (2023)	DPM (tons)	DPM (grams)	Start date	End date	Days (2024)	DPM (tons)	DPM (grams)	Start date	End date	Days (2025)	DPM (tons)	DPM (grams)
Demolition	11/21/2022	1/24/2023	30	0.0030	2691.657	11/21/2022	1/24/2023	17	0.001	1302.554	11/21/2022	1/24/2023	0	0.000	0.000	11/21/2022	1/24/2023	0	0.000	0.000
Site Preparation	3/30/2023	4/17/2023	0	0.0000	0.000	3/30/2023	4/17/2023	13	0.001	497.332	3/30/2023	4/17/2023	0	0.000	0.000	3/30/2023	4/17/2023	0	0.000	0.000
Grading	4/18/2023	6/1/2023	0	0.0000	0.000	4/18/2023	6/1/2023	33	0.001	1285.447	4/18/2023	6/1/2023	0	0.000	0.000	4/18/2023	6/1/2023	0	0.000	0.000
Building Foundation	6/2/2023	6/2/2023	0	0.0000	0.000	6/2/2023	6/2/2023	1	0.001	590.577	6/2/2023	6/2/2023	0	0.000	0.000	6/2/2023	6/2/2023	0	0.000	0.000
Building Construction	6/5/2023	11/10/2025	0	0.0000	0.000	6/5/2023	11/10/2025	150	0.001	905.551	6/5/2023	11/10/2025	262	0.006	5077.197	6/5/2023	11/10/2025	224	0.000	11.715
Asphalt Paving	7/30/2025	7/30/2025	0	0.0000	0.000	7/30/2025	7/30/2025	0	0.000	0.000	7/30/2025	7/30/2025	0	0.000	0.000	7/30/2025	7/30/2025	1	0.000	55.388
Architectural Coatings	8/1/2024	11/10/2025	0	0.0000	0.000	8/1/2024	11/10/2025	0	0.000	0.000	8/1/2024	11/10/2025	109	0.000	0.597	8/1/2024	11/10/2025	224	0.000	1.172
Total	11/21/2022	12/31/2022	30	0.003	2691.657	1/1/2023	12/31/2023	260	0.005	4581.461	1/1/2024	12/31/2024	262	0.006	5077.794	1/1/2025	11/10/2025	224	0.000	68.275
	11/21/2022	11/10/2025	776																	

seconds/hour	3600
work hours/day	8
seconds per work day	28800

ONSITE

Phase	Start date	End date	days	Days in Bin per OEHHA 3rd tri	Days in Bin per OEHHA 0<2	Days in Bin per OEHHA 2-9	g/day	total g 3rd tri	total g 0<2	total g 2-9	g/sec 3rd tri	g/sec 0<2	g/sec 2-9	g/sec-m2 3rd tri	g/sec-m2 0<2	g/sec-m2 2-9
Demolition	11/21/2022	1/24/2023	47	47			85	3994			2.95E-03			1.12E-06		
Site Preparation	3/30/2023	4/17/2023	13		13		38		497			1.33E-03			5.05E-07	
Grading	4/18/2023	6/1/2023	33		33		39		1285			1.35E-03			5.14E-07	
Building Foundation	6/2/2023	6/2/2023	1		1		591		591			2.05E-02			7.79E-06	
Building Construction	6/5/2023	11/10/2025	636		449	187	9		4232	1763		3.27E-04	3.27E-04		1.24E-07	1.24E-07
Asphalt Paving	7/30/2025	7/30/2025	1			1	55			55			1.92E-03			7.31E-07
Architectural Coatings	8/1/2024	11/10/2025	333		146	187	0		1	1		1.84E-07	1.84E-07		7.01E-11	7.01E-11
Total				**47**	**496**	**187**		**3994**	**6606**	**1819**	**2.95E-03**	**4.62E-04**	**3.38E-04**	**1.12E-06**	**1.76E-07**	**1.28E-07**
			max per oehha	91	730	2555										
			range of days	11/21/2022	2/21/2023	2/21/2025										
				2/20/2023	2/20/2025	11/10/2025										
				91	730	262										

ONROAD

Phase	Single trips/day vendor	Single trips/day haul	trip length vendor	trip length haul	Aermod avg trip length	Aermod avg trip length	VMT scalar
Demolition	2	60	6.9	30	29	0.53	0.018
Site Preparation	2	10	6.9	35	30	0.53	0.017
Grading	2	252	6.9	30	30	0.53	0.018
Building Foundation	1,152	0	6.9	30	7	0.53	0.076
Building Construction	0	20	6.9	30	30	0.53	0.018
Asphalt Paving	0	20	6.9	15	15	0.53	0.035
Architectural Coatings	0	2	6.9	15	15	0.53	0.035

<-- using this to scale onroad DPM for each phase

Phase	7/30/2025	7/30/2025	days	Days in Bin per OEHHA 3rd tri	Days in Bin per OEHHA 0<2	Days in Bin per OEHHA 2-9	g/day, modeled	g/day, aermod	total g 3rd tri	total g 0<2	total g 2-9	g/sec 3rd tri	g/sec 0<2	g/sec 2-9	g/sec-m2 3rd tri	g/sec-m2 0<2	g/sec-m2 2-9
Demolition	11/21/2022	1/24/2023	47	47			45.989	0.826	39	0		2.87E-05			2.00E-09	0.00E+00	
Site Preparation	3/30/2023	4/17/2023	13		13		5.340	0.093		1			3.21E-06		0.00E+00	2.24E-10	
Grading	4/18/2023	6/1/2023	33		33		112.601	1.985		65			6.89E-05			4.79E-09	
Building Foundation	6/2/2023	6/2/2023	1		1		78.516	5.980		6			2.08E-04			1.44E-08	
Building Construction	6/5/2023	11/10/2025	636		449	187	8.754	0.153		69	29		5.32E-06	5.32E-06		3.70E-10	3.70E-10
Asphalt Paving	7/30/2025	7/30/2025	1			1	4.341	0.152		0	0			5.28E-06		0.00E+00	3.67E-10
Architectural Coatings	8/1/2024	11/10/2025	333		146	187	0.436	0.015		2	3		5.30E-07	5.30E-07		3.69E-11	3.69E-11
Total				47	496	187	255.976	9.204	39	144	32	2.87E-05	1.01E-05	5.88E-06	2.00E-09	7.00E-10	4.09E-10

SUMMARY (g/sec/m2)

Source	3rd tri	0<2	2-9
ONSITE	1.12E-06	1.76E-07	1.28E-07
OFFSITE	2.00E-09	7.00E-10	4.09E-10

ASSUMPTIONS

	onsite	offsite	
Areas	2,630.90	14378.6	m2
AERMOD segment	845.8	meters	
meters to mile	0.000621371		

OFFSITE DPM - ONROAD TRUCKS																							
2022					2023					2024					2025					onsite combined			offsite combined		
Start date	End date	Days (2022)	DPM (tons)	DPM (grams)	Start date	End date	Days (2023)	DPM (tons)	DPM (grams)	Start date	End date	Days (2024)	DPM (tons)	DPM (grams)	Start date	End date	Days (2025)	DPM (tons)	DPM (grams)	DPM g	days	g/d	DPM g	days	g/d
11/21/2022	1/24/2023	30	0.00188	1703.950	11/21/2022	1/24/2023	17	0.00050	457.532	11/21/2022	1/24/2023	0	0.00000	0.000	11/21/2022	1/24/2023	0	0.00000	0.000	3994.211	47	84.983	2161.482	47	45.989
3/30/2023	4/17/2023	0	0.00000	0.000	3/30/2023	4/17/2023	13	0.00008	69.422	3/30/2023	4/17/2023	0	0.00000	0.000	3/30/2023	4/17/2023	0	0.00000	0.000	497.332	13	38.256	69.422	13	5.340
4/18/2023	6/1/2023	0	0.00000	0.000	4/18/2023	6/1/2023	33	0.00410	3715.838	4/18/2023	6/1/2023	0	0.00000	0.000	4/18/2023	6/1/2023	0	0.00000	0.000	1285.447	33	38.953	3715.838	33	112.601
6/2/2023	6/2/2023	0	0.00000	0.000	6/2/2023	6/2/2023	1	0.00009	78.516	6/2/2023	6/2/2023	0	0.00000	0.000	6/2/2023	6/2/2023	0	0.00000	0.000	590.577	1	590.577	78.516	1	78.516
6/5/2023	11/10/2025	0	0.00000	0.000	6/5/2023	11/10/2025	150	0.00148	1338.867	6/5/2023	11/10/2025	262	0.00253	2291.456	6/5/2023	11/10/2025	224	0.00214	1937.238	5994.464	636	9.425	5567.561	636	8.754
7/30/2025	7/30/2025	0	0.00000	0.000	7/30/2025	7/30/2025	0	0.00000	0.000	7/30/2025	7/30/2025	0	0.00000	0.000	7/30/2025	7/30/2025	1	0.00000	4.341	55.388	1	55.388	4.341	1	4.341
8/1/2024	11/10/2025	0	0.00000	0.000	8/1/2024	11/10/2025	0	0.00000	0.000	8/1/2024	11/10/2025	109	0.00005	47.849	8/1/2024	11/10/2025	224	0.00011	97.231	1.768	333	0.005	145.080	333	0.436
			0.00188	1703.950				0.00624	5660.176				0.00258	2339.304				0.00225	2038.810	12419.187	1064	11.672	11742.240	1064	11.036

Source Inputs

LA County Population	9,818,605		
Onsite (Offroad) sources			
Source type:	Area Poly		Project site boundary
Release Height (RH)	5	m	Accounts for thermal plume rise
Initial Vertical Dimension	1.40	m	SCAQMD LST Methdology (http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf?sfvrsn=2)
Offsite (onroad) truck sources			
Source type:	Line Area		
Length of Side:	17	m	
Release Height (RH)	3.4	m	EPA PM Hostpot, Appx J
Vertical Dimension	3.16	m	EPA Haul Road Workgroup Final Report (https://www3.epa.gov/scram001/reports/Haul_Road_Workgroup-Final_Report_Package-20120302.pdf)
receptor height (m)	2.44	m	2.44m for nearby receptors located in high-rise buildings, and ground level for rest (per SCAQMD modeling guidance for AERMOD)

PM10 = DPM

Met Station: USC/Downtown L.A. (KCQT) (2012-2016)
http://www.aqmd.gov/home/air-quality/meteorological-data/aermod-table-1

Averaging Time: PERIOD (Per SCAQMD guidance to account for entire 5-years of met data provided)

Total

Averaging Period (AVE)	Receptor ID	X	Y	*concat*	DPM Concentration (AVERAGE CONC) [ug/m^3]	Source Group (GRP)
PERIOD	Res_Highest	383715.42	3767311.46	*Res_Highest3RDTRI_Birth*	52.28213	3RDTRI_Birth
PERIOD	Res_2ndHighest	383709.48	3767435.26	*Res_2ndHighest3RDTRI_Birth*	6.90152	3RDTRI_Birth
PERIOD	Res_3rdHighest	383634	3767372	*Res_3rdHighest3RDTRI_Birth*	4.18481	3RDTRI_Birth
PERIOD	Res_4thHighest	383653.33	3767489.43	*Res_4thHighest3RDTRI_Birth*	2.51717	3RDTRI_Birth
PERIOD	Res_5thHighest	383529.22	3767421.25	*Res_5thHighest3RDTRI_Birth*	2.38314	3RDTRI_Birth
PERIOD	Res_Highest	383715.42	3767311.46	*Res_Highest0<2*	52.28213	0<2
PERIOD	Res_2ndHighest	383709.48	3767435.26	*Res_2ndHighest0<2*	6.90152	0<2
PERIOD	Res_3rdHighest	383634	3767372	*Res_3rdHighest0<2*	4.18481	0<2
PERIOD	Res_4thHighest	383653.33	3767489.43	*Res_4thHighest0<2*	2.51717	0<2
PERIOD	Res_5thHighest	383529.22	3767421.25	*Res_5thHighest0<2*	2.38314	0<2
PERIOD	Res_Highest	383715.42	3767311.46	*Res_Highest2<9*	52.28213	2<9
PERIOD	Res_2ndHighest	383709.48	3767435.26	*Res_2ndHighest2<9*	6.90152	2<9
PERIOD	Res_3rdHighest	383634	3767372	*Res_3rdHighest2<9*	4.18481	2<9
PERIOD	Res_4thHighest	383653.33	3767489.43	*Res_4thHighest2<9*	2.51717	2<9
PERIOD	Res_5thHighest	383529.22	3767421.25	*Res_5thHighest2<9*	2.38314	2<9

Line Area Source

Averaging Period (AVE)	Receptor ID	X	Y	*concat*	DPM Concentration (AVERAGE CONC) [ug/m^3]	Source Group (GRP)
PERIOD	Res_Highest	383715.42	3767311.46	*Res_Highest3RDTRI_Birth*	13.76623	3RDTRI_Birth
PERIOD	Res_2ndHighest	383709.48	3767435.26	*Res_2ndHighest3RDTRI_Birth*	0.68566	3RDTRI_Birth
PERIOD	Res_3rdHighest	383634	3767372	*Res_3rdHighest3RDTRI_Birth*	0.69576	3RDTRI_Birth
PERIOD	Res_4thHighest	383653.33	3767489.43	*Res_4thHighest3RDTRI_Birth*	0.35534	3RDTRI_Birth
PERIOD	Res_5thHighest	383529.22	3767421.25	*Res_5thHighest3RDTRI_Birth*	0.40892	3RDTRI_Birth
PERIOD	Res_Highest	383715.42	3767311.46	*Res_Highest0<2*	13.76623	0<2
PERIOD	Res_2ndHighest	383709.48	3767435.26	*Res_2ndHighest0<2*	0.68566	0<2
PERIOD	Res_3rdHighest	383634	3767372	*Res_3rdHighest0<2*	0.69576	0<2
PERIOD	Res_4thHighest	383653.33	3767489.43	*Res_4thHighest0<2*	0.35534	0<2
PERIOD	Res_5thHighest	383529.22	3767421.25	*Res_5thHighest0<2*	0.40892	0<2
PERIOD	Res_Highest	383715.42	3767311.46	*Res_Highest2<9*	13.76623	2<9
PERIOD	Res_2ndHighest	383709.48	3767435.26	*Res_2ndHighest2<9*	0.68566	2<9
PERIOD	Res_3rdHighest	383634	3767372	*Res_3rdHighest2<9*	0.69576	2<9
PERIOD	Res_4thHighest	383653.33	3767489.43	*Res_4thHighest2<9*	0.35534	2<9
PERIOD	Res_5thHighest	383529.22	3767421.25	*Res_5thHighest2<9*	0.40892	2<9

Area Poly Source

Averaging Period (AVE)	Receptor ID	X	Y	*concat*	DPM Concentration (AVERAGE CONC) [ug/m^3]	Source Group (GRP)
PERIOD	Res_Highest	383715.42	3767311.46	*Res_Highest3RDTRI_Birth*	38.5159	3RDTRI_Birth
PERIOD	Res_2ndHighest	383709.48	3767435.26	*Res_2ndHighest3RDTRI_Birth*	6.21586	3RDTRI_Birth
PERIOD	Res_3rdHighest	383634	3767372	*Res_3rdHighest3RDTRI_Birth*	3.48905	3RDTRI_Birth
PERIOD	Res_4thHighest	383653.33	3767489.43	*Res_4thHighest3RDTRI_Birth*	2.16183	3RDTRI_Birth
PERIOD	Res_5thHighest	383529.22	3767421.25	*Res_5thHighest3RDTRI_Birth*	1.97422	3RDTRI_Birth
PERIOD	Res_Highest	383715.42	3767311.46	*Res_Highest0<2*	38.5159	0<2
PERIOD	Res_2ndHighest	383709.48	3767435.26	*Res_2ndHighest0<2*	6.21586	0<2
PERIOD	Res_3rdHighest	383634	3767372	*Res_3rdHighest0<2*	3.48905	0<2
PERIOD	Res_4thHighest	383653.33	3767489.43	*Res_4thHighest0<2*	2.16183	0<2
PERIOD	Res_5thHighest	383529.22	3767421.25	*Res_5thHighest0<2*	1.97422	0<2
PERIOD	Res_Highest	383715.42	3767311.46	*Res_Highest2<9*	38.5159	2<9
PERIOD	Res_2ndHighest	383709.48	3767435.26	*Res_2ndHighest2<9*	6.21586	2<9
PERIOD	Res_3rdHighest	383634	3767372	*Res_3rdHighest2<9*	3.48905	2<9
PERIOD	Res_4thHighest	383653.33	3767489.43	*Res_4thHighest2<9*	2.16183	2<9
PERIOD	Res_5thHighest	383529.22	3767421.25	*Res_5thHighest2<9*	1.97422	2<9

A-4: Solid Waste Generation Rates

Solid Waste

TORS HOTEL Units modeled as "Apartments High Rise" without any reductions

	Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Solid Waste Generation (tons/year)	Solid Waste Generation (tons/year)	tons/unit	unit
	Enclosed Parking with Elevator	436.00	Space	0.00	105,109.00	0	0	0	0
	Quality Restaurant	3.43	1000sqft	0.00	3,429.00	3.13	3.13	0.000913	SF
	Apartments High Rise	319.00	Dwelling Unit	0.00	373,480.00		146.74	0.46	Dwelling Unit
TORS Hotel Units->	Apartments High Rise	160.00	Dwelling Unit	0.63	115,068.00	220.34	73.6	0.46	Dwelling Unit

TORS HOTEL Units modeled as "Hotel" without any reductions

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Solid Waste Generation (tons/year)	Solid Waste Generation (tons/year)	tons/unit	unit
Enclosed Parking with Elevator	436.00	Space	0.00	105,109.00	0	0	0	0
Quality Restaurant	3.43	1000sqft	0.00	3,429.00	3.13	3.13	0.000913	SF
Apartments High Rise	319.00	Dwelling Unit	0.00	373,480.00	146.74	146.74	0.46	Dwelling Unit
Hotel	160.00	Rooms	0.63	115,068.00	87.6	87.6	0.5475	Rooms