ATTACHMENT A

AIR QUALITY ASSESSMENT

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AIR QUALITY ASSESSMENT

South Coast Technology Center Project

Santa Ana, California

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June 14, 2024

JN 199799

Michael Baker INTERNATIONAL

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We Make a Difference

MEMORANDUM

To: Jeffrey M. Reese, C.J. Segerstrom & Sons

From: Winnie Woo, Michael Baker International

Date: June 14, 2024

Subject: South Coast Technology Center Project – Air Quality Assessment

PURPOSE

The purpose of this technical memorandum is to evaluate potential short- and long-term air quality impacts that would result from the construction and operation of the proposed South Coast Technology Center Project (project), located in the City of Santa Ana (City), California. As the project is within the scope of buildout as part of the City's General Plan Land Use Plan, which was analyzed in the General Plan Update Program Environmental Impact Report (GPU PEIR), this memorandum compares the project's impacts with the impacts identified in the GPU PEIR.

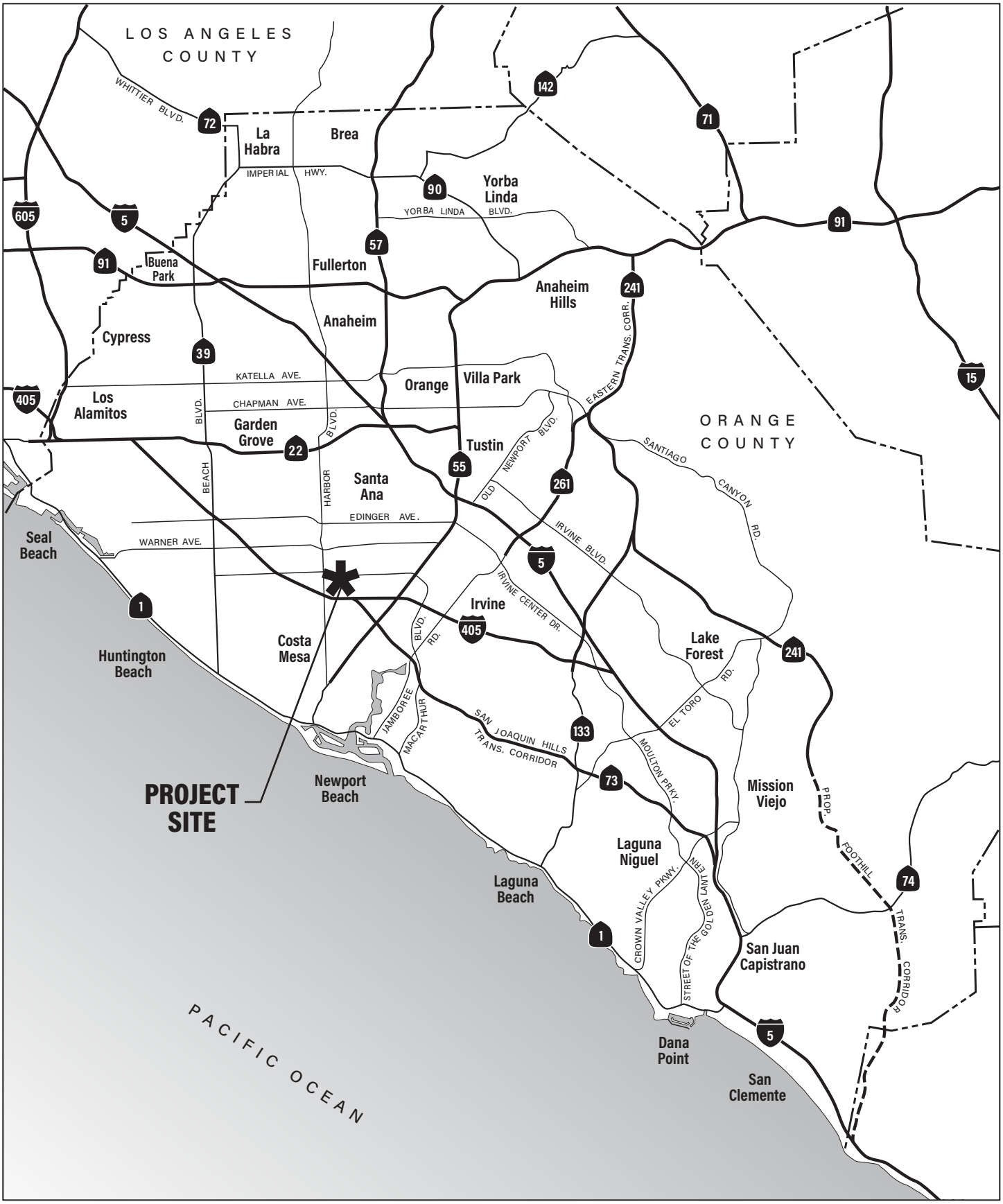
PROJECT LOCATION

The City is in central Orange County (County), generally north of the San Diego Freeway (Interstate 405 [I-405]), south of the Garden Grove Freeway (State Route 22 [SR-22]), and west of the Costa Mesa Freeway (SR-55) and Interstate 5 (I-5). The City is approximately 30 miles southeast of downtown Los Angeles; refer to Exhibit 1, *Regional Vicinity*.

The approximately 15.8-acre project site is located at 3100, 3110, and 3120 Lake Center Drive within the southwestern portion of the City. Regional access to the project site is provided via I-405. Local access to the site is provided via West Lake Center Drive and South Susan Street; refer to Exhibit 2, *Site Vicinity*.

EXISTING SITE CONDITIONS

The project site is in a highly developed and urbanized area of the City. The project site comprises an existing 10.2-acre office park, Lake Center Office Park, and includes an approximately 5.6-acre vacant field west of the existing buildings. The project site is bifurcated by the north-south South Susan Street. The Lake Center Office Park contains three buildings that surround a manmade pond with fountain features, surface parking, a parking structure, a grass lawn, and landscaping.



SOUTH COAST TECHNOLOGY CENTER PROJECT
AIR QUALITY ASSESSMENT TECHNICAL MEMORANDUM

Regional Vicinity

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Exhibit 1

Source: Google Earth Pro, April 2024

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SOUTH COAST TECHNOLOGY CENTER PROJECT
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Site Vicinity

Exhibit 2

According to the General Plan Update Land Use Element Figure LU-1*, Land Use Map*, the project site is designated Industrial (IND).[1] The Industrial designation provides space for activities such as light and heavy manufacturing, warehousing, processing, and distribution as well as commercial uses ancillary to industrial activities. Based on the *City of Santa Ana Zoning Map* (Zoning Map), the site is zoned Specific Development No. 58 (SD-58).[2] According to Ordinance No. NS-2089, permitted uses in the SD-58 District are professional and business offices providing personal and professional services including employment agencies, medical insurance, real estate, travel, trade contractors, architects, engineers, finance, research and development, and other similar use.

Surrounding uses adjacent to the project site include office, commercial, and recreational uses. To the north of the project site, across from West Lake Center Drive, is the Calvary Chapel Private School Program support facility and athletic fields. Surface parking and a parking structure bound the project site to the east. To the south of the project site are office buildings, surface parking lots, and a United States Postal Service facility. Freight rail tracks bound the project site to the west.

PROJECT DESCRIPTION

The project proposes to demolish the Lake Center Office Park, including three existing buildings, a parking structure, and parking lots to construct three new Class A industrial buildings for office, manufacturing, and/or warehouse use.[3] The three existing buildings that would be demolished are located on the eastern portion of the project site and total 178,026 square feet. The total proposed site area of 689,310 square feet (15.8 net acres) would be divided into two lot areas containing three buildings. Two new buildings (Buildings 2 and 3) would be constructed to replace the Lake Center Office Park and one new building (Building 1) would be constructed on the undeveloped field located to the west of Susan Street; refer to Exhibit 3, *Conceptual Site Plan*. The three proposed Class A buildings would result in a total building square footage of 313,244 square feet.[4] Each building would have a truck dock and a potential mezzanine located opposite the truck dock. A total of 497 parking stalls would be provided for the Project. The characteristics of each building are further detailed below.

Located on the parcel west of Susan Street, Building 1 would have a total lot area of 243,212 square feet (5.6 net acres) and would consist of a 58,615-square-foot tenant space and a 53,615-square-foot tenant space, for a total building square footage of 112,230 square feet. A truck loading dock with nine dock high doors and two grade doors would be located on the western side of the building, facing the existing railroad. Building 1 would have a maximum exterior height of 48 feet and 4 inches.

Building 2 would be centrally located on the project site on a 446,098-square-foot lot area (10.2 net acres) shared with Building 3. Building 2 would consist of two approximately 60,823-square-foot tenant spaces, for a total building square footage of 121,645 square feet. A truck loading dock with 11 dock high doors and two grade doors would be located on the southern side of the building. Building 2 would have a maximum exterior height of 48 feet and 4 inches.

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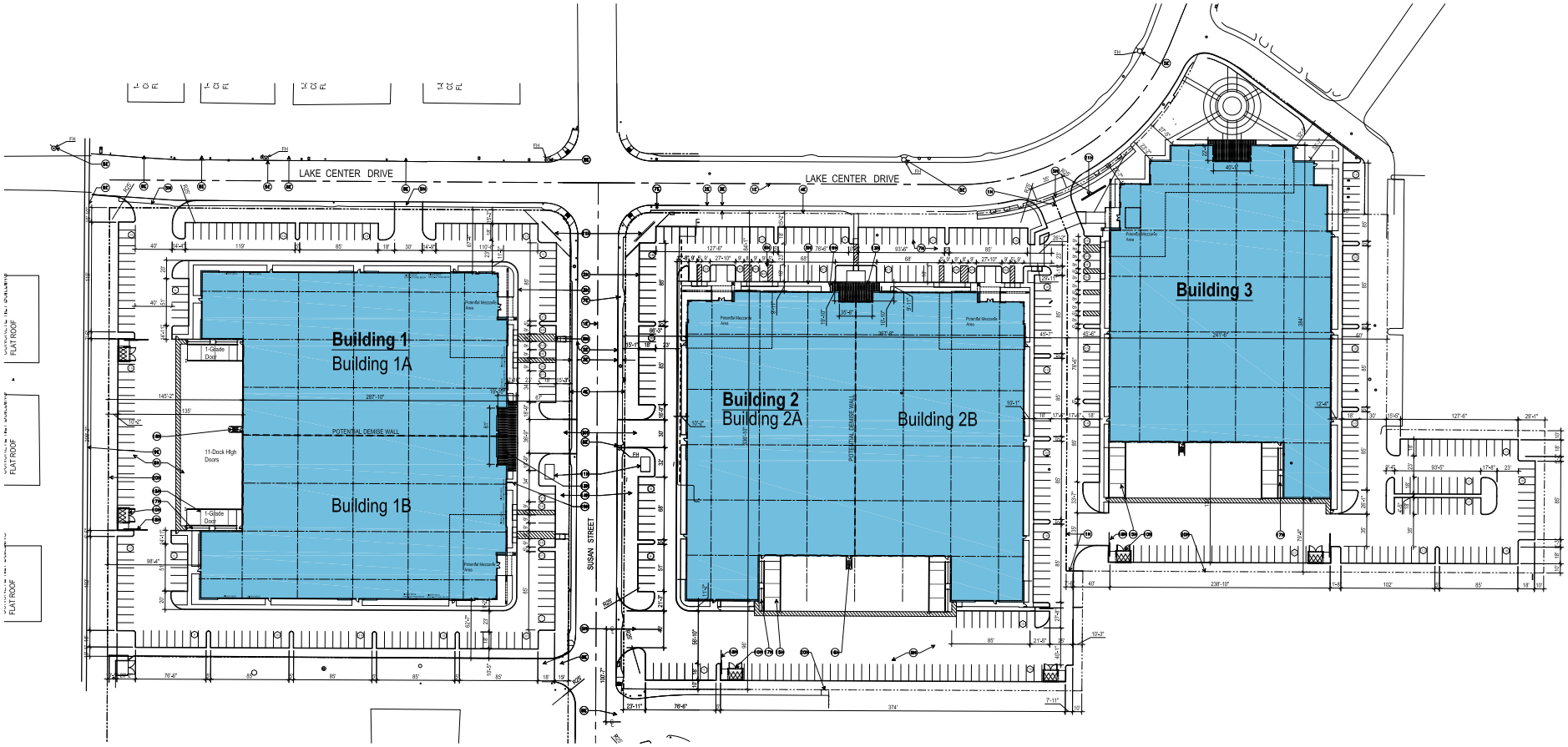
1 City of Santa Ana, *Golden City Beyond, Santa Ana General Plan Land Use Element, Figure LU-1, Land Use Map*, April 2022.

2 City of Santa Ana, *City of Santa Ana Zoning Map,* February 16, 2023.

3 Emissions modeling conducted with the California Emissions Estimator Model (CalEEMod) utilized "Industrial Park" as the land use type for the three new Class A industrial buildings proposed; such land use type is inclusive of office, manufacturing, and/or warehouse uses, which poses a close resemblance to the proposed Class A industrial buildings.

4 Emissions modeling conducted with CalEEMod utilized building assumptions from a previous site plan set to provide a conservative analysis; as such, a larger total building square footage of 325,044 square feet was used in CalEEMod than what is currently proposed (313,244 square feet).



Source: DRA Architects, April 2024

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SOUTH COAST TECHNOLOGY CENTER PROJECT
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Conceptual Site Plan

Exhibit 3

Building 3 would be located on the eastern portion of the project site on a 446,098-square-foot lot area (10.2 net acres) shared with Building 2. Building 3 would be 79,369 square feet. A truck loading dock with seven dock high doors and one grade door would be located on the southern side of the building. Building 3 would have a maximum exterior height of 44 feet and 5 inches.

Of the 497 parking stalls proposed, 164 parking stalls would be located around Building 1, 178 parking stalls would be located around Building 2, and 155 parking stalls would be located east, south, and west of Building 3. Additionally, the project would include a total of 2,815 square feet of outdoor covered patio area (1,210 square feet for Building 1, 707 square feet for Building 2, and 895 square feet for Building 3).

Ancillary improvements to the project site would include landscaping, monument signage, lighting, and fencing. The proposed project would also include 27 short-term bike parking and 27 long-term bike parking spaces near the building entrances. Similar to existing conditions, the project site would be accessible from Lake Center Drive and South Susan Street. The northern frontage of Building 3 would feature a prominent landscaped entrance to the South Coast Technology Center. Internal drive aisles would provide access to the proposed buildings.

Construction of the proposed project is anticipated to take approximately 16 months to complete, commencing in August 2024 and concluding in December 2025. Construction would occur in a single phase and would consist of the following activities:

- Demolition – 2 months
- Grading – 1+ months
- Building construction – 12 months
- Paving – 0.5 months
- Architectural coating – 1 month

CRITERIA AIR POLLUTANTS

Air quality is a general description of how levels of air pollution and other atmospheric conditions can affect public health and the environment. Under the Federal Clean Air Act (FCAA), the U.S. Environmental Protection Agency (USEPA) has identified six air pollutants that are environmentally prevalent and produced by human activities that are of concern with respect to health, the environment, and welfare of the public. These specific pollutants, known as criteria air pollutants, are pollutants for which the federal and state governments have established ambient air quality standards—or criteria—for outdoor concentrations to protect public health. These pollutants are common byproducts of human activities and have been documented through scientific research to cause various adverse health effect outcomes. The federal ambient concentration criteria are known as the National Ambient Air Quality Standards (NAAQS), and the California ambient concentration criteria are referred to as the California Ambient Air Quality Standards (CAAQS). The criteria air pollutants regulated at the federal level include carbon monoxide (CO), ground-level ozone (O_3), nitrogen dioxide (NO_2), respirable particulate matter ten microns or less in diameter (PM_{10}), fine particulate matter 2.5 microns or less in diameter ($PM_{2.5}$), sulfur dioxide (SO_2), and lead (Pb).

Carbon Monoxide (CO)

Carbon monoxide is a colorless, odorless gas primarily emitted from combustion processes and motor vehicles due to incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO is a localized pollutant that is found in high concentrations only near its source; therefore, elevated concentrations are usually only found near areas of high traffic volumes. Other sources of CO include the incomplete combustion of petroleum fuels at power plants and fuel combustion from wood stoves and fireplaces during the winter. CO causes several health problems, including the aggravation of some heart diseases, reduced tolerance for exercise, impaired mental function, and impaired fetal development. At high levels of exposure, CO reduces the amount of oxygen in the blood, which may be fatal.

Ozone (O_3)

Ozone is a gas that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NO_X), both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. As a highly reactive molecule, O_3 readily combines with many different components of the atmosphere. Consequently, high O_3 levels tend to occur only while high VOC and NO_X levels are present to sustain the formation process, and O_3 levels rapidly decline once the precursors have been depleted. O_3 is considered a regional pollutant because its reactions occur on a regional rather than local scale. In addition, because O_3 requires sunlight to form, significant concentrations occur between the months of April and October. O_3 is a pungent, colorless, toxic gas with direct health effects on humans, including changes in breathing patterns, reduction of breathing capacity, increased susceptibility to infections, inflammation of lung tissue, and some immunological changes. Groups most sensitive to O_3 include children, the elderly, people with respiratory disorders, and people who exercise strenuously outdoors.

Nitrogen Dioxide (NO_2)

Nitrogen dioxide is a nitrogen oxide compound produced by the combustion of fossil fuels, such as in both gasoline and diesel-powered internal combustion engines, and from point sources, such as power plants. NO_2 absorbs blue light, gives a reddish-brown cast to the atmosphere, and reduces visibility. The principal form of NO_X produced by combustion is nitric oxide, which reacts rapidly to form NO_2, creating the mixture of nitric oxide and NO_2. NO_2 is an acute irritant that can aggravate respiratory illnesses and symptoms. NO_2 may have negative impacts on those with existing illnesses, such as chronic pulmonary fibrosis and an increase in bronchitis in young children.

Particulate Matter (PM_{10} and $PM_{2.5}$)

Particulate matter pollution consists of very small liquid and solid particles floating in the air (e.g., soot, dust, aerosols, fumes, and mists) that can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. PM_{10} and $PM_{2.5}$ consist of extremely small, suspended particles or droplets 10 microns and 2.5 microns or smaller in diameter, respectively. Man-made sources of PM_{10} are agricultural operations, industrial processes, combustion of fossil fuels, construction, demolition operations, and entrainment of road dust into the atmosphere. Natural sources of PM_{10} include windblown dust, wildfire smoke, and sea spray salt. Elevated levels of PM_{10} can cause respiratory irritation, reduced lung function, aggravation of cardiovascular disease, and cancer in individuals. $PM_{2.5}$ is generally associated with combustion processes, as well as formation in the atmosphere as a secondary pollutant through chemical reactions. $PM_{2.5}$ is more likely to penetrate deeply into the lungs and poses a health threat to all groups but particularly to the elderly, children, and those with respiratory problems.

Elevated levels of $PM_{2.5}$ can cause respiratory stress, decreased lung function, and increased risk of long-term disease, such as chronic bronchitis, asthma, and lung cancer.

Sulfur Dioxide (SO_2)

Sulfur oxides (SO_X) are compounds of sulfur and oxygen molecules. SO_2 is classified in a group of highly reactive gases known as "oxides of sulfur." The largest sources of SO_2 emissions are from fossil fuel combustion at power plants and other industrial facilities. Other sources of SO_2 emissions include industrial processes, such as extracting metal from ore, and the burning of fuels with a high sulfur content by locomotives, large ships, and off-road equipment. SO_2 is linked to several adverse effects on the respiratory system, including aggravation of respiratory diseases, such as asthma and emphysema, and reduced lung function.

Volatile Organic Compounds (VOC)

Volatile Organic Compounds are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not form O_3 to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. The terms VOC and reactive organic gases (ROG) (see below) are often used interchangeably.

Reactive Organic Gases (ROG)

Similar to VOCs, Reactive Organic Gases (ROGs) are also precursors in forming O_3 and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROG and nitrogen oxides react in the presence of sunlight. The terms ROG and VOC are often used interchangeably.

Lead (Pb)

Lead is a metal found naturally in the environment, as well as in manufactured products. Historically, the major sources of Pb emissions have been mobile and industrial sources. Since the 1970s, the USEPA has set national regulations to gradually reduce the Pb content in gasoline. As a result of phasing out leaded gasoline, metal processing is the current primary source of Pb emissions. The highest level of Pb in the air is generally found near Pb smelters. Other stationary sources include waste incinerators, utilities, and lead-acid battery manufacturers. The health impacts of Pb include behavioral and hearing disabilities in children and nervous system impairment.

Toxic Air Contaminants (TACs)

Toxic air contaminants are air pollutants that may cause or contribute to an increase in deaths or serious illness, or that may pose a present or potential hazard to human health. TACs are different than criteria pollutants because ambient air quality standards have not been established for TACs. One of the main sources of TACs in California is diesel engine exhaust that contains solid material known as diesel

particulate matter (DPM). TACs include both organic and inorganic chemical substances that may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. Exposure to TACs may result in long-term health effects, such as cancer, birth defects, neurological damage, asthma, or genetic damage; or short-term acute effects, such as eye watering, respiratory irritation, runny nose, throat pain, and headaches. TACs are considered either carcinogenic or non-carcinogenic based on the nature of the health effects associated with exposure. For carcinogenic TACs, potential health impacts are evaluated in terms of overall relative risk expressed as excess cancer cases per one million exposed individuals. Non-carcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. TAC impacts are described by carcinogenic risk and by chronic (i.e., long duration) and acute (i.e., severe but of short duration) adverse effects on human health.

ENVIRONMENTAL SETTING

Regional Topography

The California Air Resources Board (CARB) divides the State into 15 air basins that share similar meteorological and topographical features. The project site lies within the South Coast Air Basin (Basin). The Basin is a 6,600 square mile area bounded by the Pacific Ocean to the west 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 Basin's terrain and geographical location (i.e., a coastal plain with connecting broad valleys and low hills) determine its distinctive climate.

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 man-made influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and/or dispersion of pollutants throughout the Basin.

Climate

The general region lies in the semi-permanent high-pressure zone of the eastern Pacific Ocean. As a result, the climate is mild, tempered by cool sea breezes. The climate consists of a semi-arid environment with mild winters, warm summers, moderate temperatures, and comfortable humidity. The typical mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. Precipitation is limited to a few winter storms.

The average annual temperature varies little throughout the Basin, averaging 75 degrees Fahrenheit (°F). However, with a less pronounced oceanic influence, the eastern inland portions of the Basin show greater variability in annual minimum and maximum temperatures. All portions of the Basin have had recorded temperatures over 100°F in recent years.

Although the Basin has a semi-arid climate, the air near the surface is moist due to the presence of a shallow marine layer. Except for infrequent periods when dry, continental air is brought into the Basin by offshore winds, the ocean effect is dominant. Periods with heavy fog are frequent, and low stratus clouds, occasionally referred to as "high fog," are a characteristic climate feature. Annual average relative humidity is 70 percent at the coast and 57 percent in the eastern part of the Basin. Precipitation in the

Basin is typically nine to 14 inches annually and is rarely in the form of snow or hail due to typically warm weather. The frequency and amount of rainfall is greater in the coastal areas of the Basin.

The height of the inversion is important in determining pollutant concentration. When the inversion is approximately 2,500 feet above sea level, the sea breezes carry the pollutants inland to escape over the mountain slopes or through the passes. At a height of 1,200 feet, the terrain prevents the pollutants from entering the upper atmosphere, resulting in a settlement in the foothill communities. Below 1,200 feet, the inversion puts a tight lid on pollutants, concentrating them in a shallow layer over the entire coastal basin. Usually, inversions are lower before sunrise than during the day. Mixing heights for inversions are lower in the summer and more persistent, being partly responsible for the high levels of O_3 observed during summer months in the Basin. Smog in southern California is generally the result of these temperature inversions combining with coastal day winds and local mountains to contain the pollutants for long periods of time, allowing them to form secondary pollutants by reacting with sunlight. The Basin has a limited ability to disperse these pollutants due to typically low wind speeds.

The area in which the project is located offers clear skies and sunshine yet is still susceptible to air inversions. These inversions trap a layer of stagnant air near the ground, where it is then further loaded with pollutants. These inversions cause haziness, which is caused by moisture, suspended dust, and a variety of chemical aerosols emitted by trucks, automobiles, furnaces, and other sources.

The project site is in the City of Santa Ana which experiences a mild Southern California coastal climate with average high temperatures between 68°F and 83°F, and average low temperatures between 46°F to 65°F. The area also experiences an average of up to 3.0 inches of precipitation per month, with the most precipitation occurring in the month of February.[5]

Local Ambient Air Quality

CARB monitors ambient air quality at approximately 250 air monitoring stations across the State. Air quality monitoring stations usually measure pollutant concentrations ten feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. The project site is located within Source Receptor Area (SRA) 17, *Central Orange County*. The monitoring station representative of SRA 17 is the Anaheim-Pampas Lane station, located at 1630 West Pampas Lane, located approximately 8.5 miles to the north of the project site. This monitoring station measures O_3, CO, NO_2, PM_{10}, and $PM_{2.5}$. SO_2 and Pb are not monitored at this station, and, since the area is designated unclassified/attainment for these pollutants, air quality data for these pollutants are not included in Table 1, *Ambient Air Quality at the Anaheim-Pampas Lane Monitoring Station by Year*, which reports ambient air quality measurements and indicates the number of days that each standard has been exceeded at the Anaheim-Pampas Lane station.

[5] Weather Spark, *Climate and Average Weather Year Round in Santa Ana, California, United States*, https://weatherspark.com/y/1899/Average-Weather-in-Santa-Ana-California-United-States-Year-Round, accessed on March 18, 2024.

Table 1
Ambient Air Quality at the Anaheim-Pampas Lane Monitoring Station by Year

Pollutant	Primary Standard		Year	Maximum Concentration[1]	Number of Days State/Federal Std. Exceeded
	California	Federal			
Ozone (O_3)[2] (1-hour)	0.09 ppm for 1 hour	NA[5]	2020 2021 2022	0.142 ppm 0.089 ppm 0.102 ppm	6/2 0/0 1/0
Ozone (O_3)[2] (8-hour)	0.070 ppm for 8 hours	0.070 ppm for 8 hours	2020 2021 2022	0.098 ppm 0.068 ppm 0.077 ppm	16/15 0/0 1/1
Carbon Monoxide (CO)[2,3] (1-hour)	20 ppm for 1 hour	35 ppm for 1 hour	2020 2021 2022	2.312 ppm 2.058 ppm 2.371 ppm	0/0 0/0 0/0
Nitrogen Dioxide (NO_2)[2]	0.18 ppm for 1 hour	0.100 ppm for 1 hour	2020 2021 2022	0.070 ppm 0.067 ppm 0.053 ppm	0/0 0/0 0/0
Fine Particulate Matter ($PM_{2.5}$)[2, 3]	No Separate Standard	35 µg/m^3 for 24 hours	2020 2021 2022	64.8 µg/m^3 54.4 µg/m^3 33.1 µg/m^3	NA/12 NA/10 NA/0
Coarse Particulate Matter (PM_{10})[2, 3, 4]	50 µg/m^3 for 24 hours	150 µg/m^3 for 24 hours[6]	2020 2021 2022	74.5 µg/m^3 63.3 µg/m^3 66.7 µg/m^3	5/0 1/0 1/0

ppm = parts per million
µg/m^3 = micrograms per cubic meter
NA = Not Applicable
PM_{10} = particulate matter 10 microns in diameter or less
$PM_{2.5}$ = particulate matter 2.5 microns in diameter or less

Notes:
1. Maximum concentration is measured over the same period as the California Standards.
2. Data collected from the Anaheim-Pampas Monitoring Station located at 1630 West Pampas Lane, Anaheim CA 92802.
3. PM_{10} and $PM_{2.5}$ exceedances are derived from the number of samples exceeded, not days.
4. PM_{10} exceedances are based on state thresholds established prior to amendments adopted on June 20, 2002.
5. The federal standard for 1-hour ozone was revoked in June 2005.
6. The federal standard for average PM_{10} was revoked in December 2006.

Sources:
California Air Resources Board, *ADAM Air Quality Data Statistics*, http://www.arb.ca.gov/adam/, accessed January 29, 2024.
California Air Resources Board, *AQMIS2: Air Quality Data*, https://www.arb.ca.gov/aqmis2/aqdselect.php, accessed January 29, 2024.

Sensitive Receptors

Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

The nearest sensitive receptor to the project site is the existing Calvary Chapel High School located approximately 100 feet to the east of the project site. The nearest existing residential uses are located approximately 800 feet to the south and approximately 850 feet to the east of the project site.

REGULATORY SETTING

Federal

Federal Clean Air Act

The FCAA of 1970 and the FCAA Amendments of 1971 required the USEPA to establish NAAQS, which required the USEPA to adopt more stringent air quality standards or to include standards for other specific pollutants. The FCAA was amended in 1990 to address a large number of air pollutants that are known to cause or may reasonably be anticipated to cause adverse effects to human health or adverse environmental effects. A total of 188 specific pollutants and chemical groups were initially identified as hazardous air pollutants, and the list has been modified over time. The FCAA Amendments included new regulatory programs to control acid deposition and regulate the issuance of stationary source operating permits. These standards identify levels of air quality for "criteria" pollutants that are considered the maximum levels of ambient (background) air pollutants considered safe, with an adequate margin of safety, to protect the public health and welfare; refer to Table 2, *National and California Ambient Air Quality Standards*.

State

State Implementation Plan

The FCAA Amendments require that states submit and implement a State Implementation Plan (SIP) for areas not meeting air quality standards. In California, the SIP is a collection of documents that set forth the State's strategies for achieving the NAAQS and CAAQS—a compilation of new and previously submitted plans, programs (such as monitoring, modeling, and permitting), district rules, state regulations, and federal controls. CARB is the lead agency for all purposes related to the SIP under state law. Local air districts are responsible for preparing and implementing air quality attainment plans for pollutants for which the local air district is in non-compliance, and the plans are incorporated into the SIP.

California Clean Air Act (CCAA) and the California Air Resources Board

Clean Air Act permitting in California is the shared responsibility of the CARB, its 35 air pollution control agencies (districts), and USEPA Region 9. Generally, CARB plays an oversight role for permitting and does not issue any pre-construction or operating permits. However, the state agency provides significant support to agencies that need permitting assistance.

CARB administers the air quality policy in California. The CAAQS were established in 1969 pursuant to the Mulford-Carrell Act. These standards, shown with the NAAQS in Table 2, are generally more stringent and apply to more pollutants than the NAAQS. In addition to the criteria pollutants, CAAQS have been established for visibility reducing particulates, hydrogen sulfide, and sulfates. The CCAA, which was approved in 1988, requires that each local air district prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with the CAAQS. These AQMPs also serve as the basis for the preparation of the SIP for the State of California.

Like the USEPA, CARB also designates areas within California as either attainment or non-attainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as non-attainment for a pollutant if air quality data 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 non-attainment.

Table 2
National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California[1]		Federal[2]	
		Standard[3]	Attainment Status	Standards[3,4]	Attainment Status
Ozone (O_3)	1 Hour	0.09 ppm (180 μg/m³)	**Nonattainment**	N/A	N/A[5]
	8 Hours	0.070 ppm (137 μg/m³)	**Nonattainment**	0.070 ppm (137 μg/m³)	**Nonattainment**
Particulate Matter (PM_{10})	24 Hours	50 μg/m³	**Nonattainment**	150 μg/m³	Attainment/Maintenance
	Annual Arithmetic Mean	20 μg/m³	**Nonattainment**	N/A	N/A
Fine Particulate Matter ($PM_{2.5}$)	24 Hours	No Separate State Standard		35 μg/m³	**Nonattainment**
	Annual Arithmetic Mean	12 μg/m³	**Nonattainment**	12.0 μg/m³	**Nonattainment**
Carbon Monoxide (CO)	8 Hours	9.0 ppm (10 mg/m³)	Attainment	9 ppm (10 mg/m³)	Attainment/Maintenance
	1 Hour	20 ppm (23 mg/m³)	Attainment	35 ppm (40 mg/m³)	Attainment/Maintenance
Nitrogen Dioxide (NO_2)[5]	Annual Arithmetic Mean	0.030 ppm (57 μg/m³)	N/A	53 ppb (100 μg/m³)	Attainment/Maintenance
	1 Hour	0.18 ppm (339 μg/m³)	Attainment	100 ppb (188 μg/m³)	Attainment/Maintenance
Lead (Pb)[7,8]	30 days Average	1.5 μg/m³	Attainment	N/A	N/A
	Calendar Quarter	N/A	N/A	1.5 μg/m³	**Nonattainment**
	Rolling 3-Month Average	N/A	N/A	0.15 μg/m³	**Nonattainment**
Sulfur Dioxide (SO_2)[6]	24 Hours	0.04 ppm (105 μg/m³)	Attainment	0.14 ppm (for certain areas)	Unclassified/Attainment
	3 Hours	N/A	N/A	N/A	N/A
	1 Hour	0.25 ppm (655 μg/m³)	Attainment	75 ppb (196 μg/m³)	N/A
	Annual Arithmetic Mean	N/A	N/A	0.30 ppm (for certain areas)	Unclassified/Attainment
Visibility-Reducing Particles[9]	8 Hours (10 a.m. to 6 p.m., PST)	Extinction coefficient = 0.23 km@<70% RH	Unclassified	**No Federal Standards**	
Sulfates	24 Hour	25 μg/m³	Attainment		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 μg/m³)	Unclassified		
Vinyl Chloride[7]	24 Hour	0.01 ppm (26 μg/m³)	N/A		

Notes: μg/m³ = micrograms per cubic meter; ppm = parts per million; ppb = parts per billion; km = kilometer(s); RH = relative humidity; PST = Pacific Standard Time; N/A = Not Applicable

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, and particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 μg/m³ is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.
5. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
6. On June 2, 2010, a new 1-hour SO_2 standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. Note that the 1-hour national standard is in units of ppb. California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
7. CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
8. The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 μg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
9. In 1989, CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Source: California Air Resources Board, *Ambient Air Quality Standards Chart,* http://www.arb.ca.gov/research/aaqs/aaqs2.pdf, May 4, 2016.

Regional

South Coast Air Quality Management District

The SCAQMD is one of California's 35 air quality management districts that have prepared AQMPs to accomplish a five-percent annual reduction in air emissions. The SCAQMD is primarily responsible for planning, implementing, and enforcing air quality standards for the Basin, which is a subregion within the western portion of the SCAQMD. The SCAQMD also regulates portions of the Salton Sea Air Basin and Mojave Desert Air Basin within Riverside County. The Basin is designated nonattainment for O_3 8-hour NAAQS and $PM_{2.5}$ and Pb NAAQS. The Basin is also designated non-attainment for the O_3, PM_{10}, and $PM_{2.5}$ CAAQS. The Basin is designated unclassifiable or in attainment for all other federal and state standards.

Air Quality Management Plan

The SCAQMD is required to monitor air pollutant levels to ensure that state and federal air quality standards are met and, if they are not met, to develop strategies to meet the standards. Under state law, the SCAQMD is required to prepare an AQMP for pollutants for which its jurisdiction is in noncompliance.

To meet the NAAQS and CAAQS, the SCAQMD has adopted a series of AQMPs that serve as a regional blueprint to develop and implement an emissions reduction strategy that will bring the Basin into attainment with the standards in a timely manner. The most significant air quality challenge in the Basin is to reduce NO_X emissions to meet the ozone standard deadline for the non-Coachella Valley portion of the Basin, as NO_X plays a critical role in the creation of O_3. The *2022 Air Quality Management Plan* (2022 AQMP), adopted by the SCAQMD's Governing Board on December 2, 2022, includes strategies to ensure the SCAQMD does its part to further its ability to reduce NO_X emissions as expeditiously as practicable, but no later than the statutory attainment deadline of August 3, 2038, for the Basin and August 3, 2033, for the Riverside County portion of the Salton Sea Air Basin to meet the 2015 federal O_3 standards.[6] The 2022 AQMP builds on the measures already in place from the previous AQMPs and includes a variety of additional strategies, such as regulation, accelerated deployment of available cleaner technology, best management practices, co-benefits from existing programs, incentives, and other CCAA measures to meet the 8-hour O_3 standard. Since NO_X emissions also lead to the formation of $PM_{2.5}$, the NO_X reductions needed to meet the O_3 standards will likewise lead to improvement of $PM_{2.5}$ levels and attainment of annual $PM_{2.5}$ standards.[7]

The SCAQMD's strategy to meet the NAAQS and CAAQS distributes the responsibility for emissions reductions across federal, state, and local levels and industries. Most of these emissions are from heavy-duty trucks, ships, and other state and federally regulated mobile source emissions, the majority of which are beyond SCAQMD's control. The SCAQMD has limited control over truck emissions with rules, such as Rule 1196. The 2022 AQMP is composed of stationary and mobile source emissions reductions, including traditional regulatory control measures, incentive-based programs, co-benefits from climate programs, mobile source strategies, and reductions from federal sources (e.g., aircraft, locomotives, and ocean-going vessels). These strategies are to be implemented in partnership with CARB and USEPA. The SCAQMD will not meet the standard without significant federal action. In addition to federal action, the 2022 AQMP relies on substantial future development of advanced technologies to meet the standards, including the transition to zero- and low-emission technologies. Of the needed NO_X emissions reductions, 46 percent

6 South Coast Air Quality Management District, *2022 Air Quality Management Plan*, adopted December 2, 2022.

7 Ibid.

will come from federal actions, 34 percent from CARB actions, and 20 percent will come directly from SCAQMD actions.[8]

The 2022 AQMP also incorporates the transportation strategy and transportation control measures from Southern California Association of Governments' (SCAG) *2020-2045 Regional Transportation Plan/Sustainable Communities Strategy* (2020-2045 RTP/SCS). A more detailed discussion of the 2020-2045 RTP/SCS is included below.

CEQA Air Quality Handbook

The SCAQMD published the *CEQA Air Quality Handbook*, which was approved by the SCAQMD Governing Board, in 1993. The *CEQA Air Quality Handbook* guides local government agencies and consultants in preparing air quality assessments for environmental documents required by CEQA. With the help of the *CEQA Air Quality Handbook*, local land use planners and other consultants can analyze and document how proposed and existing projects affect air quality and fulfill the requirements of the CEQA review process. The SCAQMD is in the process of developing an *Air Quality Analysis Guidance Handbook* to replace the current *CEQA Air Quality Handbook*.

Rules and Regulations

The SCAQMD has adopted several rules and regulations to regulate sources of air pollution in the Basin and help achieve air quality standards for land use development projects. The following rules apply to the project:

- Rule 402 – Nuisance: This rule states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material, which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
- Rule 403 – Fugitive Dust: This rule requires projects to prevent, reduce, or mitigate fugitive dust emissions from a site. Rule 403 restricts visible fugitive dust to a project property line, restricts the net PM_{10} emissions to less than 50 micrograms per cubic meter ($\mu g/m^3$), and restricts the tracking out of bulk materials onto public roads. Additionally, projects must utilize one or more of the best available control measures (identified in the tables within the rule). Best available control measures may include adding freeboard to haul vehicles, covering loose material on haul vehicles, watering, using chemical stabilizers, and/or ceasing all activities. Finally, a contingency plan may be required if so determined by the USEPA.
- Rule 1113 – Architectural Coatings: This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce volatile organic compounds (VOCs) emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.
- Rule 1146.2 – Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters: This rule requires manufacturers, distributors, retailers, refurbishers, installers, and operators of new and existing units to reduce NO_X emissions from natural gas-fired water heaters, boilers, and process heaters as defined in this rule.

[8] Ibid.

- Rule 1186 – PM_{10} Emissions from Paved and Unpaved Roads, and Livestock Operations: This rule applies to owners and operators of paved and unpaved roads and livestock operations. The rule is intended to reduce PM_{10} emissions by requiring the cleanup of material deposited onto paved roads, use of certified street sweeping equipment, and treatment of high-use unpaved roads (see also Rule 403).
- Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities: This rule requires owners and operators of any demolition or renovation activity and the associated disturbance of asbestos-containing materials, any asbestos storage facility, or any active waste disposal site to implement work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials.
- 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. In general, new stationary emergency standby diesel-fueled engines greater than 50 brake horsepower are not permitted to operate more than 50 hours per year for maintenance and testing.

Southern California Association of Governments

On September 3, 2020, the Regional Council of SCAG formally adopted the 2020-2045 RTP/SCS. The SCS portion of the 2020-2045 RTP/SCS highlights strategies for the region to reach the regional target of reducing greenhouse gases (GHGs) from autos and light-duty trucks by 8 percent per capita by 2020, and 19 percent by 2035 (compared to 2005 levels). Specially, these strategies are:

- Focus growth near destinations and mobility options;
- Promote diverse housing choices;
- Leverage technology innovations;
- Support implementation of sustainability policies; and
- Promote a green region.

Furthermore, the 2020-2045 RTP/SCS discusses a variety of land use tools to help achieve the state-mandated reductions in GHG emissions through reduced per capita vehicle miles traveled (VMT). Some of these tools include center-focused placemaking, focusing on priority growth areas, job centers, transit priority areas, as well as high quality transit areas and green regions.

The most recent RTP/SCS (*Connect SoCal 2024*) was approved by SCAG's Regional Council in April 2024. Connect SoCal 2024 outlines a vision for a more resilient and equitable future, with investment, policies, and strategies for achieving the region's shared goals through 2050. Connect SoCal 2024 sets forth a forecasted regional development pattern which, when integrated with the transportation network, measures, and policies, will reduce GHG emissions from automobiles and light-duty trucks and achieve the GHG emissions reduction target for the region set by the CARB. addition, Connect SoCal is supported by a combination of transportation and land use strategies that outline how the region can achieve California's GHG-emission-reduction goals and FCAA requirements. These are articulated in a set of Regional Strategic Investments, Regional Planning Policies, and Implementation Strategies. The Regional Planning Policies are a resource for County Transportation Commissions (CTCs) and local jurisdictions, who can refer to specific policies to demonstrate alignment with the RTP/SCS when seeking resources from

state or federal programs. The Implementation Strategies articulate priorities for SCAG efforts in fulfilling or going beyond the Regional Planning Policies. Outlined in Chapter 3, *The Plan*, of Connect SoCal 2024 are the Implementation Strategies organized within the pillars of Mobility, Communities, Environment, and Economy.

Local

City of Santa Ana General Plan

The Santa Ana General Plan includes the following goals and policies related to air quality that would be applicable to the proposed project:[9]

Conservation Element

- **Goal CN-1**: Air Quality and Climate: Protect air resources, improve regional and local air quality, and minimize the impacts of climate change.
    - **Policy CN-1.4 Development Standards**: Support new development that meets or exceeds standards for energy-efficient building design and site planning.
    - **Policy CN-1.5 Sensitive Receptor Decisions**: Study the impacts of stationary and non-stationary emission sources on existing and proposed sensitive uses and opportunities to minimize health and safety risks. Develop and adopt new regulations avoiding the siting of facilities that potentially emit increased pollution near sensitive receptors within environmental justice area boundaries.
    - **Policy CN-1.6 New and Infill Residential Development**: Promote development that is mixed use, pedestrian friendly, transit oriented, and clustered around activity centers.
    - **Policy CN-1.7 Housing And Employment Opportunities**: Improve the city's jobs/housing balance ratio by supporting development that provides housing and employment opportunities to enable people to live and work in Santa Ana.
    - **Policy CN-1.8 Promote Alternative Transportation**: Promote use of alternate modes of transportation in the City of Santa Ana, including pedestrian, bicycling, public transportation, car sharing programs, and emerging technologies.
    - **Policy CN-1.12 Sustainable Infrastructure**: Encourage the use of low or zero emission vehicles, bicycles, nonmotorized vehicles, and car-sharing programs by supporting new and existing development that includes sustainable infrastructure and strategies such as vehicle charging stations, drop-off areas for ride-sharing services, secure bicycle parking, and transportation demand management programs.
    - **Policy CN-1.14 Transportation Demand Management**: Require and incentivize projects to incorporate transportation demand management techniques.

[9] City of Santa Ana, *Golden City Beyond, Santa Ana General Plan, Conservation Element*, April 2022.

Mobility Element

- **Goal M-3 Active Transportation:** A safe, balanced, and integrated network of travelways for nonmotorized modes of transportation that connects people to activity centers, inspiring healthy and active lifestyles.
    - **Policy M-3.7 Complete Streets Design:** Enhance streets to facilitate safe walking, bicycling, and other nonmotorized forms of transportation through community participatory design.
- **Goal M-4 Transportation, Land Use, and Design:** Transportation, Land Use, and Design Coordinated transportation planning efforts with land use and design strategies that encourage sustainable development and achieve broader community goals.
    - **Policy M-4.1 Intense Development Areas:** Program multimodal transportation and public realm improvements that support new development in areas along transit corridors and areas planned for high intensity development.
    - **Policy M-4.2 Project Review:** Encourage active transportation, transit use, and connectivity through physical improvements and public realm amenities identified during the City's Development Review process.
    - **Policy M-4.3 Transportation Management:** Coordinate with OCTA, employers, and developers to utilize TDM (transportation demand management) strategies and education to reduce vehicle trips and parking demands.
    - **Policy M-4.5 Land Use Development Design:** Ensure that building placement and design features create a desirable and active streetscape.
    - **Policy M-4.6 Roadway Capacity Alternatives:** Promote reductions in automobile trips and vehicle miles traveled by encouraging transit use and nonmotorized transportation as alternatives to augmenting roadway capacity.
    - **Policy M-4.7 Parking:** Explore and implement a flexible menu of parking options and other strategies to efficiently coordinate the response to parking demands.
    - **Policy M-4.9 Air Pollution Mitigation:** Consider land use, building, site planning, and technology solutions to mitigate exposure to transportation related air pollution.
- **Goal M-5 Sustainable Transportation Design:** A transportation system that is attractive, safe, state-of-the-art, and supports community, environmental, and conservation goals.
    - **Policy M-5.4 Green Streets:** Leverage opportunities along streets and public rights-of-way to improve water quality through use of landscaping, permeable pavement, and other best management practices.
    - **Policy M-5.6 Clean Fuels and Vehicles:** Encourage the use of alternative fuel vehicles and mobility technologies through the installation of supporting infrastructure.

Land Use Element

- **Goal LU-3 Compatibility of** Uses: Preserve and improve the character and integrity of existing neighborhoods and districts.
    - **Policy LU-3.8 Sensitive Receptors:** Avoid the development of industry and sensitive receptors in close proximity to each other that could pose a hazard to human health and safety, due to the quantity, concentration, or physical or chemical characteristics of the hazardous materials utilized, or the hazardous waste an operation may generate or emit.
    - **Policy LU-3.9 Noxious, Hazardous, Dangerous, and Polluting Uses:** Improve the health of residents, students, and workers by limiting the impacts of construction activities and operation of noxious, hazardous, dangerous, and polluting uses that are in close proximity to sensitive receptors, with priority given to discontinuing such uses within environmental justice areas boundaries.
    - **Policy LU-3.11 Air Pollution Buffers:** Promote landscaping and other buffers to separate existing sensitive uses from rail lines, heavy industrial facilities, and other emissions sources. As feasible, apply more substantial buffers within environmental justice area boundaries.
- **Goal LU-4 Complete Communities:** Support a sustainable Santa Ana through improvements to the built environment and a culture of collaboration.
    - **Policy LU-4.3 Sustainable Land Use Strategies:** Encourage land uses and strategies that reduce energy and water consumption, waste and noise generation, soil contamination, air quality impacts, and light pollution.
    - **Policy LU-4.5 VMT Reduction:** Concentrate development along high-quality transit corridors to reduce vehicle miles traveled (VMT) and transportation related carbon emissions.

Open Space Element

- **Goal OS-3 Park Maintenance, Stewardship, and Sustainability:** Maintain and manage parks, recreation facilities, trails and open space to sustain City assets and support safe use.
    - **Policy OS-3.5 Landscaping:** Encourage the planting of native and diverse tree species in public and private spaces to reduce heat island effect, reduce energy consumption, and contribute to carbon mitigation.
    - **Policy OS-3-6 Sustainable Parks and Facilities:** Integrate drought tolerant or native plantings, water-wise irrigation, design and maintenance efficiencies, and sustainable development practices to reduce water use and energy consumption.

GPU PEIR Regulatory Requirements

The project is required to comply with the following GPU PEIR regulatory requirements related to air quality:

- *RR AQ-1:* New buildings are required to achieve the current California Building Energy Efficiency Standards (Title 24, Part 6) and California Green Building Standards Code (CALGreen) (Title 24, Part 11). The 2019 Building Energy Efficiency Standards became effective January 1, 2020. The Building and Energy Efficiency Standards and CALGreen are updated tri-annually with a goal to achieve net zero buildings energy for 2030.

- *RR AQ-2:* Construction activities will be conducted in compliance with California Code of Regulations, Title 13, Section 2449, which requires that nonessential idling of construction equipment is restricted to five minutes or less.
- *RR AQ-3:* Construction activities will be conducted in compliance with any applicable South Coast Air Quality Management District rules and regulations, including but not limited to:
  - Rule 403, Fugitive Dust, for controlling fugitive dust and avoiding nuisance.
  - Rule 402, Nuisance, which states that a project shall not "discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property."
  - Rule 1113, which limits the volatile organic compound content of architectural coatings.
  - Rule 1466, Soil Disturbance. Projects that involve earth-moving activities of more than 50 cubic yards of soil with applicable toxic air contaminants are subject to this rule.

CALIFORNIA ENVIRONMENTAL QUALITY ACT THRESHOLDS

In accordance with the *California Environmental Quality Act Guidelines* (CEQA Guidelines), project impacts are evaluated to determine whether significant adverse environmental impacts would occur. This analysis will focus on the project's potential impacts and provide mitigation measures, if required, to reduce or avoid any potentially significant impacts that are identified. According to Appendix G of the CEQA Guidelines, the proposed project would have a significant impact related to air quality if it would:

- Conflict with or obstruct implementation of the applicable air quality plan (refer to Impact Statement AQ-1);
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable Federal or State ambient air quality standard (refer to Impact Statement AQ-2);
- Expose sensitive receptors to substantial pollutant concentrations (refer to Impact Statement AQ-3); and/or
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people (refer to Impact Statement AQ-4).

To assist in answering the Appendix G threshold questions, the City utilizes the thresholds of significance established by the SCAQMD.

Regional Thresholds

The SCAQMD's numeric significance thresholds for impacts to regional air quality are presented in Table 3, *South Coast Air Quality Management District Emissions Thresholds*. There are separate thresholds for short-term construction and long-term operational emissions. A project with daily emissions below these thresholds is considered to have a less-than-significant effect on regional air quality from both a direct and cumulative impact standpoint.

Table 3
South Coast Air Quality Management District Emissions Thresholds

Phase	Pollutant (pounds per day)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Construction	75	100	550	150	150	55
Operational	55	55	550	150	150	55
Notes: ROG = reactive organic gases; NO_X = nitrous oxides; CO = carbon monoxide; SO_X = sulfur oxides; PM_{10} = particulate matter 10 microns in diameter or less; $PM_{2.5}$ = particulate matter 2.5 microns in diameter or less						
Source: South Coast Air Quality Management District, *South Coast AQMD Air Quality Significance Thresholds*, March 2023.						

Localized Significance Thresholds

The SCAQMD has also developed localized significance thresholds (LST) as a tool to assist lead agencies in analyzing localized air quality impacts to sensitive receptors in the vicinity of the project. The SCAQMD's LST Methodology outlines how to analyze localized impacts from common pollutants of concern, including NO_2, CO, PM_{10}, and $PM_{2.5}$. Localized air quality impacts would occur if pollutant concentrations at sensitive receptors exceeded applicable NAAQS or CAAQS.

To minimize efforts, the SCAQMD developed mass rate lookup tables as a simple screening procedure. If a project's on-site emissions do not exceed the screening levels for any pollutant, it can be concluded that the project would not cause or contribute to an adverse localized air quality impact. Screening levels are provided for various distances (i.e., 82 feet [25 meters], 164 feet [50 meters], 328 feet [100 meters], 656 feet [200 meters], and 1,640 feet [500 meters]) between the project boundary and the nearest sensitive receptor and various project site acreages (i.e., 1, 2, and 5 acres).

Cumulative Impacts

Based on SCAQMD guidance, individual construction projects that exceed the SCAQMD's recommended daily thresholds for project-specific impacts would also cause a cumulatively considerable increase in emissions for those pollutants for which Basin is in non-attainment. As discussed in the SCAQMD's White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution:

> *As Lead Agency, the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR… projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.*

The cumulative analysis of air quality impacts in this memorandum follows the SCAQMD's guidance such that construction or operational project emissions will be considered cumulatively considerable if project-specific emissions exceed an applicable recommended significance threshold established by the SCAQMD.

SIGNIFICANCE CRITERIA AND METHODOLOGY

Criteria pollutants for project construction and operation were calculated using the California Emissions Estimator Model (CalEEMod) version 2022.1.[10] Operational emissions generated by existing uses are calculated and deducted from project's operational emissions to provide an accurate estimate of project-related impacts.

Construction

Project construction would primarily generate temporary criteria pollutants from construction equipment operation on-site and construction worker vehicle trips to and from the project site, and from construction material deliveries to and from the project site. Project-specific construction (non-default) input data for CalEEMod include land uses proposed, the anticipated start and finish dates of each construction phase specified by the project Applicant, demolished materials to be exported during demolition phase, and applicable measures pursuant to SCAQMD Rule 403 and Rule 1113. Construction emissions were quantified by estimating the types and quantity of equipment that would be used on-site during each construction phase, as provided by the model defaults. CalEEMod also estimates off-site emissions from worker, vendor, and hauling truck trips.

Construction of the proposed project is anticipated to take approximately 16 months to complete. The construction activities would include demolition, grading, building construction, paving, and architectural coating. The number of worker and vendor trips were based on CalEEMod defaults and the hauling truck trips during demolition and grading phases were generally based on the amount of demolished building materials and earthwork volumes, respectively, provided by the project Applicant. The amount of demolished materials was calculated based on existing buildings total square footage of 178,026 square feet, and the total soil export volume would be 7,235 cubic yards. The default trip lengths were used for worker, vendor, and hauling trips.

Operation

Operational sources of criteria pollutant emissions include area, energy, and mobile sources, which are further discussed below. CalEEMod modeling was conducted for the existing condition and the proposed project condition.

Area Sources

Emissions associated with area sources include consumer products, landscape maintenance, and architectural coating. Area source emissions were calculated using standard emission rates from CARB, USEPA, SCAQMD, and CalEEMod model defaults.

Energy Sources

The project would be served by Southern California Edison (SCE). The primary use of electricity by the project would be for space heating and cooling, water heating, ventilation, lighting, appliances, landscaping equipment, and electronics. Emissions from energy sources are primarily generated by

[10] Modeling was performed for a project with three industrial buildings totaling 325,044 square feet. However, since the completion of the modeling, the total building square footage has been reduced to 313,244 square feet. Therefore, the analysis in this memorandum is conservative.

natural gas use. The emissions factors for natural gas combustion are based on USEPA's AP-42 (Compilation of Air Pollutant Emissions Factors). Emissions from electricity use are not included in the air quality analysis as they only apply to greenhouse gas emissions since electricity generation is an indirect emission generated off-site and, therefore, not relevant for local and regional air quality conditions.

It should be noted that the project would not consume natural gas according to the project applicant.

Mobile Sources

Mobile source emissions are estimated by multiplying the project's total VMT by the vehicle emission factors. The vehicle emission factors were CalEEMod default values for the County. The project-specific VMT were calculated from project trip generation rates based on the project-specific traffic study, *Trip Generation Assessment for the Proposed South Coast Technology Center Project* (Trip Generation Assessment), prepared by Linscott, Law, and Greenspan Engineers (dated January 2, 2024), and trip lengths of 39.9 miles per trip for 4-axle trucks and 14.2 miles per trip for 2-axle and 3-axle trucks based on the SCAQMD's WAIRE program[11]; trip lengths for passenger cars remain as CalEEMod defaults. It should be noted that CalEEMod default fleet mix was adjusted using user defined industrial land uses to accurately model truck trips emissions based on vehicle type and their associated trip lengths.

IMPACT ANALYSIS

AQ-1 WOULD THE PROJECT CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF THE APPLICABLE AIR QUALITY PLAN? [GPU PEIR Impact 5.2-1]

Level of Significance: Less Than Significant Impact.

The GPU PEIR Impact 5.2-1 analyzed the GPU's consistency with SCAQMD's 2016 AQMP, which was the latest AQMP when the GPU PEIR was prepared. The 2016 AQMP incorporated scientific and technological information and planning assumptions, including the SCAG 2016-2040 RTP/SCS and updated emission inventory methodologies for various source categories. The 2016-2040 RTP/SCS includes transportation programs, measures, and strategies generally designed to reduce VMT and related air pollutant emissions from vehicles.

The GPU PEIR concluded that buildout of the GPU would exceed population estimates for the City, and therefore the emissions associated with the additional population are not included in the regional emissions inventory for the Basin. Additionally, air pollutant emissions associated with buildout of the GPU would cumulatively contribute to the nonattainment designations in the Basin. Therefore, overall, the GPU would be inconsistent with the AQMP.

Incorporation of GPU PEIR Mitigation Measures (MM) AQ-1 and AQ-2 into future development projects for the operation and construction phases would contribute to reduced criteria air pollutant emissions associated with buildout of the GPU. Additionally, goals and policies in the GPU would promote increased capacity for alternative transportation modes and implementation of transportation demand management strategies. However, due to the magnitude and scale of the land uses that would be developed, no mitigation measures are available that would reduce operation and construction impacts

[11] South Coast Air Quality Management District, *WAIRE Implementation Guidelines, Rule 2305 – Warehouse Indirect Source Rule - Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program, Rule 316 – Fees for Rule 2305, Table 13. Truck activity data from SCAG's Heavy-Duty Truck Regional Travel Demand Model*, June 2021.

below SCAQMD thresholds. In addition, the population and employment assumptions of the AQMP would continue to be exceeded until the AQMP is revised and incorporates the projections of the GPU. Therefore, the GPU PEIR concluded that future development projects in accordance with the GPU would result in significant and unavoidable impacts regarding consistency with SCAQMD's 2016 AQMP.

On December 2, 2022, the SCAQMD Governing Board adopted the 2022 AQMP. The 2022 AQMP incorporates the latest scientific and technical information and planning assumptions, including the latest applicable growth assumptions, updated emission inventory methodologies for various source categories. Additionally, the 2022 AQMP utilized information and data from SCAG and its 2020-2045 RTP/SCS. While SCAG has recently adopted Connect SoCal 2024, SCAQMD has not released an updated AQMP. As such, this consistency analysis is based off the 2022 AQMP and the RTP/SCS that was adopted at the time, the 2020-2045 RTP/SCS.

According to the SCAQMD's *CEQA Air Quality Handbook*, projects must be analyzed for consistency with two main criteria, as discussed below.

Criterion 1:

With respect to the first criterion, SCAQMD methodologies require that an air quality analysis for a project include forecasts of project emissions in relation to contributing to air quality violations and delay of attainment.

a) *Would the project result in an increase in the frequency or severity of existing air quality violations?*

Since the consistency criteria identified under the first criterion pertain to pollutant concentrations, rather than to total regional emissions, an analysis of a project's pollutant emissions relative to localized pollutant concentrations associated with the CAAQS and NAAQS is used as the basis for evaluating project consistency. As detailed below under Impact AQ-3, localized concentrations of CO, NO_X, PM_{10}, and $PM_{2.5}$ would be less than significant during project construction and operations. Therefore, the proposed project would not result in an increase in the frequency or severity of existing air quality violations.

b) *Would the project cause or contribute to new air quality violations?*

As discussed under Impact AQ-2, the proposed project would result in emissions that are below the SCAQMD thresholds. Therefore, the project would not have the potential to cause or affect a violation of the ambient air quality standards.

c) *Would the project delay timely attainment of air quality standards or the interim emissions reductions specified in the AQMP?*

The proposed project would result in less than significant impacts regarding localized concentrations during project construction and operations; refer to Impact AQ-3. As such, the project would not delay the timely attainment of air quality standards or 2022 AQMP emissions reductions.

Criterion 2:

With respect to the second criterion for determining consistency with SCAQMD and SCAG air quality policies, it is important to recognize that air quality planning within the Basin focuses on attainment of ambient air quality standards at the earliest feasible date. Projections for achieving air quality goals are

based on assumptions regarding population, housing, and growth trends. Thus, the SCAQMD's second criterion for determining project consistency focuses on whether the proposed project exceeds the assumptions utilized in preparing the forecasts presented in the 2022 AQMP. Determining whether a project exceeds the assumptions reflected in the 2022 AQMP involves the evaluation of the three criteria outlined below. The following discussion provides an analysis of each of these criteria.

a) *Would the project be consistent with the population, housing, and employment growth projections utilized in the preparation of the AQMP?*

A project is consistent with the 2022 AQMP in part if it is consistent with the population, housing, and employment assumptions that were used in the development of the 2022 AQMP. In the case of the 2022 AQMP, three sources of data form the basis for the projections of air pollutant emissions: general plans, SCAG's regional growth forecast, and SCAG's 2020-2045 RTP/SCS. The 2020-2045 RTP/SCS also provides socioeconomic forecast projections of regional population growth.

As discussed under "Existing Site Conditions" above, the project site is designated Industrial (IND) and zoned Specific Development No. 58 (SD-58). The Industrial land use designation provides space for activities such as light and heavy manufacturing, warehousing, processing, and distribution as well as commercial uses ancillary to industrial activities; permitted uses in the SD-58 Zoning District include professional and business offices providing personal and professional services including employment agencies, medical insurance, real estate, travel, trade contractors, architects, engineers, finance, research and development, and other similar use. The project proposes the construction of three new Class A industrial buildings for office, manufacturing, and/or warehouse use. As such, the project would be consistent with the land use projections previously envisioned for this site. Furthermore, the project is anticipated to generate approximately 425 employees, which would be a nominal amount of employment increase compared to the growth identified in the GPU PEIR, which is an increase of 13,418 jobs between 2019 and 2045.[12] As such, the proposed project is considered consistent with the GPU, and is consistent with the types, intensity, and patterns of land use previously envisioned for the site. The population, housing, and employment forecasts, which are adopted by SCAG's Regional Council, are based on the local plans and policies applicable to the City. As the SCAQMD has incorporated these same projections into the 2022 AQMP, it can be concluded that the proposed project would be consistent with the 2022 AQMP.

b) *Would the project implement all feasible air quality mitigation measures?*

The proposed project would be required to comply with GPU PEIR regulatory requirements RR AQ-1 through RR AQ-3, which include applicable emission reduction measures identified by the SCAQMD such as Rule 403 that requires control of excessive fugitive dust emissions by regular watering or other dust prevention measures, and Rule 1113 that regulates the ROG content of paint. In addition, the project would implement GPU PEIR MM AQ-1 and AQ-2, which require the preparation and submittal of a technical assessment that evaluates the project's potential construction and operational-related air quality impacts. Note that this memorandum satisfies the requirements of GPU PEIR MM AQ-1 and AQ-2. As such, the proposed project meets this AQMP consistency criterion.

[12] City of Santa Ana, *General Plan Update Program Environmental Impact Report, Table 5.13-7, Population and Employment Projections for Santa Ana and Orange County*, October 2021.

c) *Would the project be consistent with the land use planning strategies set forth in the AQMP?*

Land use planning strategies set forth in the 2022 AQMP are primarily based on the 2020-2045 RTP/SCS. Overall, it is anticipated that the proposed project would be consistent with SCAG's 2020-2045 RTP/SCS in that it would be located in a highly developed and urbanized area of Santa Ana with multiple bus stops within a quarter mile and would provide short- and long-term bike parking, both of which would incentivize employees to take alternative modes of travel, thereby reducing criteria pollutant emissions. Therefore, the project would be consistent with the land use planning strategies, and would be consistent with this criterion.

In conclusion, the determination of 2022 AQMP consistency is primarily concerned with the long-term influence of a project on air quality in the Basin. The proposed project would not result in a long-term impact on the region's ability to meet state and federal air quality standards. Further, the proposed project's long-term influence on air quality in the Basin would also be consistent with the SCAQMD and SCAG's goals and policies and is considered consistent with the 2022 AQMP. As such, impacts resulting from the proposed project would be less than significant and less than the impacts disclosed in the GPU PEIR, which were determined to be significant and unavoidable despite inclusion of mitigation.

The project would not result in new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR would occur. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or project- specific mitigation measures.

The following GPU PEIR mitigation measures apply to the project:

AQ-1: Prior to discretionary approval by the City of Santa Ana for development projects subject to CEQA (California Environmental Quality Act) review (i.e., non-exempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project construction-related air quality impacts to the City of Santa Ana for review and approval. The evaluation shall be prepared in conformance with South Coast Air Quality Management District (South Coast AQMD) methodology for assessing air quality impacts. If construction related criteria air pollutants are determined to have the potential to exceed the South Coast AQMD's adopted thresholds of significance, the City of Santa Ana shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during construction activities. These identified measures shall be incorporated into all appropriate construction documents (e.g., construction management plans) submitted to the City and shall be verified by the City. Mitigation measures to reduce construction-related emissions could include, but are not limited to:

- Require fugitive-dust control measures that exceed South Coast AQMD's Rule 403, such as:
  - Use of nontoxic soil stabilizers to reduce wind erosion.
  - Apply water every four hours to active soil-disturbing activities.
  - Tarp and/or maintain a minimum of 24 inches of freeboard on trucks hauling dirt, sand, soil, or other loose materials.
- Use construction equipment rated by the United States Environmental Protection Agency as having Tier 3 (model year 2006 or newer) or Tier 4 (model year 2008 or newer) emission limits, applicable for engines between 50 and 750 horsepower.

- Ensure that construction equipment is properly serviced and maintained to the manufacturer's standards.
- Limit nonessential idling of construction equipment to no more than five consecutive minutes.
- Limit on-site vehicle travel speeds on unpaved roads to 15 miles per hour.
- Install wheel washers for all exiting trucks or wash off all trucks and equipment leaving the project area.
- Use Super-Compliant VOC paints for coating of architectural surfaces whenever possible. A list of Super-Compliant architectural coating manufactures can be found on the South Coast AQMD's website.

AQ-2 Prior to discretionary approval by the City of Santa Ana for development projects subject to CEQA (California Environmental Quality Act) review (i.e., non-exempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project operation phase-related air quality impacts to the City of Santa Ana for review and approval. The evaluation shall be prepared in conformance with South Coast Air Quality Management District (South Coast AQMD) methodology in assessing air quality impacts. If operation-related air pollutants are determined to have the potential to exceed the South Coast AQMD's adopted thresholds of significance, the City of Santa Ana shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during operational activities. The identified measures shall be included as part of the conditions of approval. Possible mitigation measures to reduce long-term emissions could include, but are not limited to the following:

- For site-specific development that requires refrigerated vehicles, the construction documents shall demonstrate an adequate number of electrical service connections at loading docks for plug-in of the anticipated number of refrigerated trailers to reduce idling time and emissions.
- Applicants for manufacturing and light industrial uses shall consider energy storage and combined heat and power in appropriate applications to optimize renewable energy generation systems and avoid peak energy use.
- Site-specific developments with truck delivery and loading areas and truck parking spaces shall include signage as a reminder to limit idling of vehicles while parked for loading/unloading in accordance with California Air Resources Board Rule 2845 (13 CCR Chapter 10 § 2485).
- Provide changing/shower facilities as specified in Section A5.106.4.3 of the CALGreen Code (Nonresidential Voluntary Measures).
- Provide bicycle parking facilities per Section A4.106.9 (Residential Voluntary Measures) of the CALGreen Code and Sec. 41-1307.1 of the Santa Ana Municipal Code.
- Provide preferential parking spaces for low-emitting, fuel-efficient, and carpool/van vehicles per Section A5.106.5.1 of the CALGreen Code (Nonresidential Voluntary Measures).
- Provide facilities to support electric charging stations per Section A5.106.5.3 (Nonresidential Voluntary Measures) and Section A5.106.8.2 (Residential Voluntary Measures) of the CALGreen Code.
- Applicant-provided appliances (e.g., dishwashers, refrigerators, clothes washers, and dryers)

shall be Energy Star–certified appliances or appliances of equivalent energy efficiency. Installation of Energy Star–certified or equivalent appliances shall be verified by Building & Safety during plan check.

- Applicants for future development projects along existing and planned transit routes shall coordinate with the City of Santa Ana and Orange County Transit Authority to ensure that bus pad and shelter improvements are incorporated, as appropriate.

Mitigation Measures: Impacts related to Impact AQ-1 would be less than significant with implementation of GPU PEIR MM AQ-1 and AQ-2. This Air Quality Technical Memorandum prepared for the project satisfies the requirements of GPU PEIR MM AQ-1 and AQ-2. Therefore, no project-specific mitigation measures are required.

Level of Significance After Mitigation: Impacts related to Impact AQ-1 were determined to be less than significant with implementation of GPU PEIR MM AQ-1 and AQ-2. This Air Quality Technical Memorandum prepared for the project satisfies the requirements of GPU PEIR MM AQ-1 and AQ-2. Therefore, no project-specific mitigation measures are required or included, and the impact level would remain less than significant.

AQ-2 WOULD THE PROJECT RESULT IN A CUMULATIVELY CONSIDERABLE NET INCREASE OF ANY CRITERIA POLLUTANT FOR WHICH THE PROJECT REGION IS NON-ATTAINMENT UNDER AN APPLICABLE FEDERAL OR STATE AMBIENT AIR QUALITY STANDARD? [GPU PEIR Impacts 5.2-2 and 5.2-3]

Level of Significance: Less Than Significant Impact.

The analysis for GPU PEIR Impact 5.2-2 acknowledged that construction activities associated with the GPU would temporarily increase PM_{10}, $PM_{2.5}$, VOC, NO_X, SO_X, and CO regional emissions within the Basin. However, information regarding specific development projects, soil types, and the locations of receptors was unknown at the time and therefore the GPU PEIR did not quantify the level of impact associated with construction activity. While individual projects accommodated under the GPU may not exceed the SCAQMD regional significance thresholds, the likely scale and extent of construction activities associated with the GPU would likely continue to exceed the relevant SCAQMD thresholds for some projects. Therefore, construction-related regional air quality impacts of developments that would be accommodated by the GPU would be potentially significant. Implementation of GPU PEIR MM AQ-1 would reduce criteria air pollutant emissions from construction-related activities to the extent feasible. However, construction time frames and equipment for site-specific development projects were not available at the time, and there was a potential for multiple development projects to be constructed at one time, resulting in significant construction-related emissions that would cumulatively contribute to the nonattainment designations of the Basin. Therefore, despite adherence to GPU PEIR MM AQ-1, the GPU PEIR concluded that the short-term construction impact would remain significant and unavoidable.

The analysis for GPU PEIR Impact 5.2-3 also concluded that buildout in accordance with the GPU would generate long-term emissions that would exceed SCAQMD's regional significance thresholds for VOC, NO_X, CO. Since VOC and NO_X are precursors to the formation of O_3 and NO_X is a precursor to the formation of PM_{10} and $PM_{2.5}$, emissions of VOC and NO_X that exceed the SCAQMD's regional significance thresholds would cumulatively contribute to the contribute to the O_3, PM_{10}, and $PM_{2.5}$ nonattainment designations of the Basin. GPU PEIR MM AQ-2, in addition to the goals and policies of the GPU, would reduce air pollutant emissions to the extent feasible. The measures and policies covering topics such as expansion of the

pedestrian and bicycle networks, promotion of public and active transit, and support to increase building energy efficiency and energy conservation would also reduce criteria air pollutants in the City. Further, compared to existing baseline year conditions, emissions of NO_X, CO, and SO_X are projected to decrease from current levels despite growth associated with the GPU. However, the GPU PEIR concluded that long-term operational impact would remain significant and unavoidable due to the magnitude of the overall land use development associated with the GPU. Contributing to the nonattainment status would also contribute to elevating health effects associated with these criteria air pollutants. Reducing emissions would further contribute to reducing possible health effects related to criteria air pollutants. However, because cumulative development within the City would exceed the regional significance thresholds, the proposed project could contribute to an increase in health effects in the Basin until the attainment standards are met in the Basin.

Construction

Refer to Appendix A, *Air Quality Emissions Data* for the detailed CalEEMod output. Table 4, *Construction Criteria Pollutant Emissions* summarizes the estimated maximum daily emissions of VOC (ROG), NO_x, CO, SO_2, PM_{10}, and $PM_{2.5}$.

Table 4
Construction Criteria Pollutant Emissions

Construction Phase (Year)	Maximum Daily Emissions (pounds/day) [1, 2]					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Demolition (2024)	2.75	29.21	24.39	0.05	4.71	1.7
Grading (2024)	3.63	36.89	32.3	0.07	4.63	2.5
Building Construction (2024)	1.75	13.71	21.12	0.03	2.76	1.02
Building Construction (2025)	1.66	12.77	21.52	0.03	2.68	0.96
Paving (2025)	2.85	7.51	10.71	0.01	0.55	0.37
Architectural Coating (2025)	71.03	0.99	2.46	< 0.01	0.39	0.11
Maximum Daily Emissions[3]	71.03	50.6	53.42	0.10	7.39	3.52
SCAQMD Significance Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Threshold Exceeded?	***No***	***No***	***No***	***No***	***No***	***No***

Notes:
1. Emissions were calculated using CalEEMod version 2022.1. Higher emissions between summer and winter are presented as a conservative analysis.
2. Modeling assumptions include compliance with SCAQMD Rule 403 which requires: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stockpiles with tarps; water all haul roads twice daily; and limit speeds on unpaved roads to 15 miles per hour.
3. Grading and building construction phases would overlap in 2024. As such, maximum daily emissions for all pollutants except for ROG are the total of grading phase and building construction phase emissions in 2024. Totals may be slightly off due to rounding.

Source: Refer to Appendix A, *Air Quality Emissions Data*, for assumptions used in this analysis.

Fugitive Dust Emissions

Construction activities are a source of fugitive dust emissions that may have a substantial, temporary impact on local air quality. In addition, fugitive dust may be a nuisance to those living and working in the project area. Fugitive dust emissions are associated with land clearing, ground excavation, cut-and-fill, and truck travel on unpaved roadways. Fugitive dust emissions vary substantially from day to day, depending on the level of activity, specific operations, and weather conditions. Fugitive dust from demolition, site preparation, and construction is expected to be short-term and would cease upon project completion. It should be noted that most of this material is inert silicates, rather than the complex organic particulates released from combustion sources, which are more harmful to health.

Dust (larger than 10 microns) generated by such activities usually becomes more of a local nuisance than a serious health problem. Of particular health concern is the amount of PM_{10} generated as a part of fugitive dust emissions. PM_{10} poses a serious health hazard alone or in combination with other pollutants. $PM_{2.5}$ is mostly produced by mechanical processes. These include automobile tire wear, industrial processes such as cutting and grinding, and re-suspension of particles from the ground or road surfaces by wind and human activities such as construction or agriculture. $PM_{2.5}$ is mostly derived from combustion sources, such as automobiles, trucks, and other vehicle exhaust, as well as from stationary sources. These particles are either directly emitted or are formed in the atmosphere from the combustion of gases such as NO_X and sulfur oxides (SO_X) combining with ammonia. $PM_{2.5}$ components from material in the earth's crust, such as dust, are also present, with the amount varying in different locations.

Construction activities would comply with SCAQMD Rule 402, which prohibits fugitive dust from creating a nuisance off-site, and Rule 403, which requires that excessive fugitive dust emissions be controlled by regular watering or other dust prevention measures. Adherence to SCAQMD Rule 403 would greatly reduce PM_{10} and $PM_{2.5}$ concentrations. It should be noted that these estimated reductions were applied in CalEEMod. As depicted in Table 4, total PM_{10} and $PM_{2.5}$ emissions would not exceed the SCAQMD thresholds during construction. Thus, construction-related air quality impacts would be less than significant.

Construction Equipment and Worker Vehicle Exhaust

Exhaust emissions (e.g., NO_x and CO) from construction activities include emissions associated with the transport of machinery and supplies to and from the project site, emissions produced on-site as the equipment is used, and emissions from trucks transporting materials to/from the site. As depicted in Table 4, exhaust emissions would be below the established SCAQMD thresholds. Therefore, air quality impacts from equipment and vehicle exhaust emission would be less than significant.

ROG Emissions

In addition to gaseous and particulate emissions, the application of asphalt and surface coatings creates ROG emissions, which are O_3 precursors. As required, all architectural coatings for the proposed project structures would comply with SCAQMD Rule 1113. Rule 1113 provides specifications on painting practices as well as regulates the ROG content of paint. It should be noted that these estimated reductions were applied in CalEEMod. ROG emissions associated with the proposed project would be less than significant; refer to Table 4.

Naturally Occurring Asbestos

Asbestos is a term used for several types of naturally occurring fibrous minerals that are human health hazards when airborne. The most common type of asbestos is chrysotile, but other types such as tremolite and actinolite are also found in California. Asbestos is classified as a known human carcinogen by state, federal, and international agencies and was identified as a toxic air contaminant by CARB in 1986.

Asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects, and other improvement projects in some localities. Asbestos may be released to the atmosphere due to vehicular traffic on unpaved roads, during grading for development projects, and at quarry operations. All of these activities may have the effect of releasing potentially harmful asbestos into the air. Natural weathering and erosion processes can act on asbestos bearing rock and make it easier for asbestos fibers to become airborne if such rock is disturbed. According to the California Department of Conservation Division of Mines and Geology, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report* (August 2000), serpentinite and ultramafic rocks are not known to occur within the project area.[13] Thus, there would be no impact in this regard.

Total Construction Emissions

As shown in Table 4, the daily total construction emissions would not exceed established SCAQMD thresholds. Therefore, impacts in this regard would be less than significant.

Cumulative Short-Term Construction Impacts

With respect to the proposed project's construction-period air quality emissions and cumulative Basin-wide conditions, the SCAQMD has developed strategies to reduce criteria pollutant emissions outlined in the 2022 AQMP pursuant to FCAA mandates. As such, the proposed project would comply with SCAQMD Rule 403 requirements and implement all feasible SCAQMD rules to reduce construction air emissions to the extent feasible. Rule 403 requires that fugitive dust be controlled with the best available control measures to reduce dust so that it does not remain visible in the atmosphere beyond the property line of the proposed project. In addition, the proposed project would comply with adopted 2022 AQMP emissions control measures. Pursuant to SCAQMD rules and mandates, as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, implementation of all feasible mitigation measures, and compliance with adopted AQMP emissions control measures) would also be imposed on construction projects throughout the Basin, which would include related projects.

As detailed above, the project's construction emissions would be below the established thresholds and would result in less than significant air quality impacts. Thus, it can be reasonably inferred that the project's construction emissions would not contribute to a cumulatively considerable air quality impact for nonattainment criteria pollutants (i.e., O_3) in the Basin. A less than significant impact would occur in this regard.

[13] California Department of Conservation Division of Mines and Geology, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report*, August 2000.

Operations

Long-term air quality impacts typically consist of mobile source emissions generated from traffic associated with on-site uses (i.e., motor vehicle use by employees, deliveries travelling to and from the site), and emissions from area and energy sources. Operational emissions associated with existing uses and proposed uses were calculated and are discussed below in Table 5, *Operational Criteria Pollutant Emissions*.

Table 5
Operational Criteria Pollutant Emissions

Emissions Source	Pollutant (pounds/day)[1]					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Existing Summer Emissions						
Mobile[2]	6.41	4.59	50.50	0.12	10.90	2.82
Area	6.65	0.12	14.50	< 0.005	0.03	0.02
Energy	0.07	1.21	1.02	0.01	0.09	0.09
Total Existing Summer Emissions[4]	**13.10**	**5.92**	**66.00**	**0.13**	**11.00**	**2.93**
Project Summer Emissions						
Mobile[2]	2.85	26.30	33.90	0.28	14.70	4.11
Area	9.73	0.12	14.10	< 0.005	0.03	0.02
Energy[3]	0.00	0.00	0.00	0.00	0.00	0.00
Total Project Summer Emissions[4]	**12.60**	**26.40**	**48.00**	**0.28**	**14.70**	**4.13**
Net Increase From Existing Conditions	***-0.50***	***20.48***	***-18.00***	***0.15***	***3.70***	***1.20***
SCAQMD Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Threshold Exceeded?	***No***	***No***	***No***	***No***	***No***	***No***
Existing Winter Emissions						
Mobile[2]	6.34	4.99	47.30	0.11	10.90	2.82
Area	4.28	0.00	0.00	0.00	0.00	0.00
Energy	0.07	1.21	1.02	0.01	0.09	0.09
Total Existing Winter Emissions[4]	**10.70**	**6.20**	**48.30**	**0.12**	**11.00**	**2.91**
Project Winter Emissions						
Mobile[2]	2.82	27.40	32.00	0.28	14.70	4.11
Area	7.41	0.00	0.00	0.00	0.00	0.00
Energy[3]	0.00	0.00	0.00	0.00	0.00	0.00
Total Project Winter Emissions[4]	**10.20**	**27.40**	**32.00**	**0.28**	**14.70**	**4.11**
Net Increase From Existing Conditions	***-0.50***	***21.20***	***-16.30***	***0.16***	***3.70***	***1.20***
SCAQMD Thresholds	*55*	*55*	*550*	*150*	*150*	*55*
Threshold Exceeded?	***No***	***No***	***No***	***No***	***No***	***No***

Notes:
1. Emissions calculated using California Emissions Estimator Model Version 2022.1 (CalEEMod) computer model.
2. Operational Trips based on the *Trip Generation Assessment for the Proposed South Coast Technology Center Project* prepared by Linscott, Law, and Greenspan Engineers (dated January 2, 2024).
3. According to the project applicant, the project would not consume natural gas.
4. The numbers may be slightly off due to rounding.

Source: Refer to Appendix A, *Air Quality Emissions Data*, for assumptions used in this analysis.

Mobile Source

Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_X, SO_X, PM_{10}, and $PM_{2.5}$ are all pollutants of regional concern (NO_X and ROG react with sunlight to form O_3 [photochemical smog], and wind currents readily transport SO_X, PM_{10}, and $PM_{2.5}$). However, CO tends to be a localized pollutant, dispersing rapidly at the source.

Existing and project-generated vehicle emissions have been estimated using CalEEMod. As discussed above, operational trips are based on the Trip Generation Assessment. According to the Trip Generation Assessment, existing uses generated 1,930 daily trips while the project would result in 1,544 daily trips; refer to Appendix A. Thus, the project's mobile source emissions would not exceed the established thresholds; refer to Table 5.

Area Source Emissions

Area source emissions would be generated from consumer products, architectural coatings, and landscaping. The project's net increase of criteria pollutant emissions from area sources would not exceed the established thresholds; refer to Table 5.

Energy Source Emissions

The primary use of electricity by the project would be for space heating and cooling, water heating, ventilation, lighting, appliances, landscaping equipment, and electronics. It should be noted that the project would not consume natural gas according to the project applicant. Criteria air pollutant emissions from electricity use were not quantified since criteria pollutants emissions occur at the site of the power plant, which is off-site. Therefore, the project's energy source emissions would be less than existing conditions and would not exceed established SCAQMD thresholds; refer to Table 5.

Total Operational Emissions

As shown in Table 5, the project would result in reduced ROG and CO emissions during both summer and winter conditions compared to existing conditions primarily due to the proposed project generating less mobile source emissions than the existing office uses. In addition, the project would not consume natural gas, which would also partially contribute to the reductions of ROG and CO emissions. Overall, as shown in Table 5, the daily total operational emissions would not exceed established SCAQMD thresholds. Therefore, impacts in this regard would be less than significant.

Cumulative Long-Term Operational Impacts

As discussed, the proposed project would not result in long-term operational air quality impacts. Additionally, adherence to SCAQMD rules and regulations would alleviate potential impacts related to cumulative conditions on a project-by-project basis. Emission reduction technology, strategies, and plans are constantly being developed. As a result, the proposed project would not contribute a cumulatively considerable net increase of any nonattainment criteria pollutant. Therefore, no cumulative operational impacts associated with implementation of the proposed project would result.

Air Quality Health Impacts

Adverse health effects induced by criteria pollutant emissions are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, and the number and character of exposed individual [e.g., age, gender]). In particular, O_3 precursors, VOCs and NO_x, affect air quality on a regional scale. Health effects related to O_3 are therefore the product of emissions generated by numerous sources throughout a region. Existing models have limited sensitivity to small changes in criteria pollutant concentrations and, as such, translating project-generated criteria pollutants to specific health effects or additional days of nonattainment would produce meaningless results. In other words, the project's less than significant increases in regional air pollution from criteria air pollutants during construction would have negligible impacts on human health.

As noted in the Brief of Amicus Curiae by the SCAQMD, the SCAQMD acknowledged it would be extremely difficult, if not impossible to quantify health impacts of criteria pollutants for various reasons including modeling limitations as well as where in the atmosphere air pollutants interact and form.[14] Further, as noted in the Brief of Amicus Curiae by the San Joaquin Valley Air Pollution Control District (SJVAPCD), SJVAPCD has acknowledged that currently available modeling tools are not equipped to provide a meaningful analysis of the correlation between an individual development project's air emissions and specific human health impacts.[15]

The SCAQMD acknowledges that health effects quantification from O_3, as an example, is correlated with the increases in ambient level of O_3 in the air (concentration) that an individual person breathes. SCAQMD's Brief of Amicus Curiae states that it would take a large amount of additional emissions to cause a modeled increase in ambient O_3 levels over the entire region. The SCAQMD further states that based on their own modeling in the SCAQMD's *2012 Air Quality Management Plan*, a reduction of 432 tons (864,000 pounds) per day of NO_x and a reduction of 187 tons (374,000 pounds) per day of VOCs would reduce O_3 levels at highest monitored site by only nine parts per billion. As such, the SCAQMD concludes that it is not currently possible to accurately quantify O_3-related health impacts caused by NO_x or VOC emissions from relatively small projects (defined as projects with regional scope) due to photochemistry and regional model limitations. Thus, as the project would not exceed SCAQMD thresholds for construction and operational air emissions, the project would have a less than significant impact for air quality health impacts.

Conclusion

In conclusion, construction and operational impacts resulting from the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment. Project impacts would be less than significant and less than the impacts disclosed in the GPU PEIR, which were determined to be significant and unavoidable despite inclusion of mitigation.

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[14] South Coast Air Quality Management District, *Application of the South Coast Air Quality Management District for Leave to File Brief of Amicus Curiae in Support of Neither Party and Brief of Amicus Curiae. In the Supreme Court of California. Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno v. County of Fresno,* April 3, 2015.

[15] San Joaquin Valley Air Pollution Control District, *Application for Leave to File Brief of Amicus Curiae Brief of San Joaquin Valley Unified Air Pollution Control District in Support of Defendant and Respondent, County of Fresno and Real Party In Interest and Respondent, Friant Ranch, L.P. In the Supreme Court of California. Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno v. County of Fresno*, April 13, 2015.

The project would not result in new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR would occur. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or project-specific mitigation measures.

GPU PEIR MM AQ-1 and AQ-2 detailed above under Impact AQ-1, which require the preparation and submittal of a technical assessment that evaluates the project's potential construction and operational-related air quality impacts, apply to the project.

Mitigation Measures: Impacts related to Impact AQ-2 would be less than significant with implementation of GPU PEIR MM AQ-1 and AQ-2. This Air Quality Technical Memorandum prepared for the project satisfies the requirements of GPU PEIR MM AQ-1 and AQ-2. Therefore, no project-specific mitigation measures are required.

Level of Significance After Mitigation: Impacts related to Impact AQ-2 were determined to be less than significant with implementation of GPU PEIR MM AQ-1 and AQ-2. This Air Quality Technical Memorandum prepared for the project satisfies the requirements of GPU PEIR MM AQ-1 and AQ-2. Therefore, no project-specific mitigation measures were required or included, and the impact level would remain less than significant.

AQ-3 WOULD THE PROJECT EXPOSE SENSITIVE RECEPTORS TO SUBSTANTIAL POLLUTANT CONCENTRATIONS? [GPU PEIR Impacts 5.2-4 and 5.2-5]

Level of Significance: Less Than Significant Impact.

The GPU PEIR Impact 5.2-4 concluded that buildout of the GPU, including industrial and warehousing land uses, could expose sensitive receptors to substantial concentrations of TACs. Buildout could result in new sources of criteria air pollutant emissions and/or TACs near existing or planned sensitive receptors. Review of development projects by SCAQMD for permitted sources of air toxics (e.g., industrial facilities, dry cleaners, and gasoline dispensing facilities) would ensure that health risks are minimized. Additionally, GPU PEIR MM AQ-3 would ensure mobile sources of TACs not covered under SCAQMD permits are considered during subsequent project-level environmental review by the City. Individual development projects would be required to achieve the incremental risk thresholds established by SCAQMD, and TACs would be less than significant. However, implementation of the GPU would generate TACs that could contribute to elevated levels in the Basin. While individual projects would achieve the project-level risk threshold of 10 per million, they would nonetheless contribute to the higher levels of risk in the Basin. Therefore, the GPU PEIR concluded that the GPU's cumulative contribution to health risk is significant and unavoidable.

The GPU PEIR Impact 5.2-5 also concluded that GPU PEIR MM AQ-1 and AQ-2 would reduce the regional construction and operation emissions associated with buildout of the GPU and therefore also result in a reduction of localized construction- and operation-related criteria air pollutant emissions to the extent feasible. However, because existing sensitive receptors may be close to project-related construction activities and large emitters of on-site operation-related criteria air pollutant emissions, construction and operation emissions generated by individual development projects have the potential to exceed SCAQMD's LSTs. The GPU PEIR concluded that localized impact would remain significant and unavoidable. However, because buildout of the General Plan Update would not result in the increase in traffic volume required to generate a CO hotspot, impacts related to CO hotspot would be less than significant.

Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

The nearest sensitive receptor to the project site is the existing Calvary Chapel High School located approximately 100 feet to the east of the project site. To identify impacts to sensitive receptors, the SCAQMD recommends addressing localized significance thresholds (LSTs) for construction and operations impacts (area sources only). The CO hotspot analysis following the LST analysis addresses localized mobile source impacts.

Localized Significance Thresholds

LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the *Final Localized Significance Threshold Methodology* (dated June 2003 [revised 2008]) for guidance. The LST methodology assists lead agencies in analyzing localized air quality impacts. The SCAQMD provides the LST screening lookup tables for one-, two-, and five-acre projects emitting CO, NO_X, $PM_{2.5}$, or PM_{10}. The LST methodology and associated mass rates are not designed to evaluate localized impacts from mobile sources traveling over the roadways. The project is located within SRA 17, *Central Orange County*.

Construction

The SCAQMD guidance on applying CalEEMod to LSTs specifies the number of acres a particular piece of equipment would likely disturb per day.[16] SCAQMD provides LST thresholds for one-, two-, and five-acre site disturbance areas; SCAQMD does not provide LST thresholds for projects over five acres. Table 6, *Area To Be Disturbed Per Day*, shows the project would actively disturb approximately three acres per day during the grading phase of construction. Therefore, the construction LST for two acres were utilized as a conservative analysis.

Table 6
Area To Be Disturbed Per Day

Calculation	Quantity
Area Graded (acre)[1]	99
Grading Period Duration (day)[2]	33
Area To Be Disturbed Per Day	***3.0 Acre Per Day***
Notes: 1. Refer to CalEEMod output Section 5.6. 2. Refer to CalEEMod output Section 5.1	
Source: Refer to Appendix A, *Air Quality Emissions Data*, for assumptions used in this analysis.	

[16] The number of acres represent the total acres traversed by grading equipment. To properly grade a piece of land, multiple passes with equipment may be required. The disturbance acreage is based on the equipment list and days of the grading phase according to the anticipated maximum number of acres a given piece of equipment can pass over in an 8-hour workday.

The nearest sensitive receptor to the project site is the existing Calvary Chapel High School located approximately 100 feet to the east of the project site. These sensitive land uses may be potentially affected by air pollutant emissions generated during on-site construction activities. LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. As the nearest sensitive receptors are located approximately 100 feet (30.5 meters) from the project site, the lowest available LST values for 25 meters were used.

Table 7, *Localized Significance of Construction Emissions*, shows the localized construction-related emissions for NO_X, CO, PM_{10}, and $PM_{2.5}$ compared to the LSTs for SRA 17. It is noted that the localized emissions presented in Table 7 are less than those in Table 4 because localized emissions include only on-site emissions (i.e., from construction equipment and fugitive dust), and do not include off-site emissions (i.e., from hauling activities). As shown in Table 7, localized construction emissions would not exceed the LSTs for SRA 17. Therefore, localized significance impacts from construction would be less than significant.

Table 7
Localized Significance of Construction Emissions

Emissions Source	Emissions (pounds per day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Maximum Daily Construction Emissions[1, 2]	45.50	43.30	4.34	2.74
Localized Significance Threshold[3]	*115*	*715*	*6*	*4*
Thresholds Exceeded?	***No***	***No***	***No***	***No***

Notes:
1. The grading phase would overlap with the building construction phase during Year 1; maximum daily construction emissions from these two phases are combined to be presented as the worst-case scenario for NOx, CO, $PM_{10,}$ and $PM_{2.5}$ emissions.
2. Modeling assumptions include compliance with SCAQMD Rule 403 which requires the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stockpiles with tarps; water all haul roads twice daily; and limit speeds on unpaved roads to 15 miles per hour.
3. The Localized Significance Threshold Mass Rate Screening Criteria was determined using Appendix C of the SCAQMD *Final Localized Significant Threshold Methodology* guidance document for pollutants NO_X, CO, PM_{10}, and $PM_{2.5}$. The Localized Significance Threshold was based on the anticipated daily acreage disturbance for construction (approximately three acres; therefore, the two-acre thresholds were used) and Source Receptor Area 17, *Central Orange County*.

Source: Refer to Appendix A, *Air Quality Emissions Data*, for assumptions used in this analysis.

Further, based on the *South Coast Technology Center – Health Risk Assessment Technical Memorandum* (HRA) prepared by Michael Baker International (dated June 19, 2024), the highest expected average DPM emission concentrations resulting from construction of the project at a sensitive receptor would be approximately 0.06955 µg/m^3. It is acknowledged that the calculations conservatively assume no cleaner technology with lower emissions would occur in future years. Cancer risk calculations are based on 16-month maximum individual cancer risk (MICR) exposure periods. As shown in the HRA, the highest calculated carcinogenic risk from project construction activities is approximately 1.71 per million for 16-month exposure at the sensitive receptor at the school. The highest calculated carcinogenic risk at a residential sensitive receptor location east of the project site is 5.68 per million for 16-month exposure. Thus, the project would not exceed the MICR of 10 in one million and impacts related to cancer risk and DPM concentrations from heavy trucks would be less than significant for the MICR.

Operations

According to SCAQMD localized significance threshold methodology, LSTs would apply to the operational phase of a proposed project if the project includes stationary sources or attracts mobile sources that may spend extended periods queuing and idling at the site (e.g., warehouse or transfer facilities). Since the proposed project consists of three new Class A industrial buildings for office, manufacturing, and/or warehouse use, the operational phase LST protocol was applied. If emissions exceed the applicable operational LSTs for the project site, then additional dispersion modeling would need to be conducted to determine if there is an actual exceedance of the ambient air quality standards. The project site is approximately 15.8 acres. Therefore, the LST values for five-acre at 25 meters were utilized to provide a conservative estimate of operational LST impacts. As detailed above, this analysis utilized trip lengths of 39.9 miles per trip for 4-axle trucks and 14.2 miles per trip for 2-axle and 3-axle trucks based on the SCAQMD's WAIRE program; trip lengths for passenger cars remain as CalEEMod defaults (5.3 to 13.4 miles per trip). It is assumed that the maximum distance a vehicle could travel on the 15.8-acre (approximately 0.0247-square mile) site would be one mile or less. Therefore, a conservative percentage of 20 percent of the total mobile source emissions (one mile trip on-site of the shortest 5.3-mile trip) were assumed as on-site emissions. This assumption is conservative because only 45 percent of the passenger cars trips would have a trip length of 5.3 miles per trip; all other trip types and vehicle types would have much longer trip lengths.

Table 8, *Localized Significance of Operational Emissions*, shows the calculated emissions for the project's operational activities compared to the applicable LSTs. As shown in Table 8, the project's operational area source emissions would not exceed the LSTs for SRA 17. Therefore, localized significance impacts from operations would be less than significant.

Table 8
Localized Significance of Operational Emissions

Emissions Source	Emissions (pounds per day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Maximum Daily Area Source Emissions	0.12	14.10	0.03	0.02
Maximum Daily On-Site Mobile Emissions[1]	5.48	6.78	2.94	0.82
Maximum Daily Energy Emissions	0.00	0.00	0.00	0.00
Total Maximum Daily On-Site Operational Emissions	***5.60***	***20.88***	***2.97***	***0.84***
Localized Significance Threshold[2]	*183*	*1,253*	*3*	*2*
Thresholds Exceeded?	***No***	***No***	***No***	***No***

Notes:
1. As it was conservatively assumed that approximately 20 percent of the project's mobile trips would occur on the 15.8-acre site, the operational LST assessment analyzed 20 percent of the maximum daily winter or summer operational mobile emissions.
2. The Localized Significance Threshold Mass Rate Screening Criteria was determined using Appendix C of the SCAQMD *Final Localized Significant Threshold Methodology* guidance document for pollutants NO_X, CO, PM_{10}, and $PM_{2.5}$. The Localized Significance Threshold was based on the site acreage (approximately 15.8 acres; therefore, the five-acre thresholds were used as a conservative analysis) and Source Receptor Area 17, *Central Orange County*.

Source: Refer to Appendix A, *Air Quality Emissions Data*, for assumptions used in this analysis.

Further, based on the HRA, the highest expected annual average DPM emission concentrations resulting from operation of the project (332 daily truck trips) at a sensitive receptor would be 0.00456 $\mu g/m^3$. This level of concentration would be experienced at the institutional uses (Calvary Chapel High School) located directly east of the project site, where DPM emissions were modeled to include emissions from on-site and off-site heavy duty trucks movement and idling. It is acknowledged that the calculations conservatively assume no cleaner technology with lower emissions would occur in future years. Cancer risk calculations are based on four-year maximum individual cancer risk (MICR) exposure periods. As shown in the HRA, the highest calculated carcinogenic risk from project implementation is 0.00965 per million for 4-year exposure at the sensitive receptor at the school. The highest calculated carcinogenic risk at a residential sensitive receptor location (800 feet south of the project site) is 1.750 per million for 30-year exposure. Thus, the project would not exceed the MICR of 10 in one million and impacts related to cancer risk and DPM concentrations from heavy trucks would be less than significant for the MICR.

Carbon Monoxide Hotspots

CO emissions are a function of vehicle idling time, meteorological conditions and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthy levels (i.e., adversely affect residents, school children, hospital patients, the elderly, etc.). To identify CO hotspots, the SCAQMD requires a CO microscale hotspot analysis when a project increases the volume-to-capacity ratio (also called the intersection capacity utilization) by 0.02 (two percent) for any intersection with an existing level of service (LOS) D or worse. Because traffic congestion is highest at intersections where vehicles queue and are subject to reduced speeds, these hot spots are typically produced at intersection locations.

The Basin is designated as an attainment area for state and federal CO standards. There has been a decline in CO emissions even though VMT on U.S. urban and rural roads have increased. On-road mobile source CO emissions have declined 24 percent between 1989 and 1998, despite a 23 percent rise in motor VMT over the same 10 years. California trends have been consistent with national trends; CO emissions declined 20 percent in California from 1985 through 1997, while VMT increased 18 percent in the 1990s. Three major control programs have contributed to the reduced per-vehicle CO emissions: exhaust standards, cleaner burning fuels, and motor vehicle inspection/maintenance programs.

A detailed CO analysis was conducted in the *Federal Attainment Plan for Carbon Monoxide* (CO Plan) for the SCAQMD's *2003 Air Quality Management Plan*. The locations selected for microscale modeling in the CO Plan are worst-case intersections in the Basin and would likely experience the highest CO concentrations. Of these locations, the Wilshire Boulevard/Veteran Avenue intersection experienced the highest CO concentration (4.6 ppm), which is well below the 35-ppm 1-hr CO federal standard. The Wilshire Boulevard/Veteran Avenue intersection is one of the most congested intersections in southern California with an average daily traffic (ADT) volume of approximately 100,000 vehicles per day. As the CO hotspots were not experienced at the Wilshire Boulevard/Veteran Avenue intersection (100,000 ADT), it can be reasonably inferred that CO hotspots would not be experienced at any locations near the project site as the project would not result in increase in daily trips compared to existing conditions. Therefore, similar to the analysis in GPU PEIR Impact 5.2-5, impacts related to CO hotspots would be less than significant.

Conclusion

In conclusion, both construction and operational localized air quality impacts resulting from the proposed project would be less than significant and would be less than the impacts disclosed in the GPU PEIR, which were determined to be significant and unavoidable despite inclusion of mitigation.

The project would not result in new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR would occur. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or project-specific mitigation measures.

The following GPU PEIR mitigation measures apply to the project:

AQ-1 and AQ-2, which require the preparation and submittal of a technical assessment that evaluates the project's potential construction and operational-related air quality impacts. See Impact AQ-1 for the detailed mitigation measures.

AQ-3: Prior to discretionary approval by the City of Santa Ana, project applicants for new industrial or warehousing development projects that 1) have the potential to generate 100 or more diesel truck trips per day or have 40 or more trucks with operating diesel-powered transport refrigeration units, and 2) are within 1,000 feet of a sensitive land use (e.g., residential, schools, hospitals, or nursing homes), as measured from the property line of the project to the property line of the nearest sensitive use, shall submit a health risk assessment (HRA) to the City of Santa Ana for review and approval. The HRA shall be prepared in accordance with policies and procedures of the State Office of Environmental Health Hazard Assessment and the South Coast Air Quality Management District and shall include all applicable stationary and mobile/area source emissions generated by the proposed project at the project site. If the HRA shows that the incremental cancer risk and/or noncancer hazard index exceed the respective thresholds, as established by the South Coast AQMD at the time a project is considered (i.e., 10 in one million cancer risk and 1 hazard index), the project applicant will be required to identify and demonstrate that best available control technologies for toxics (T-BACTs), including appropriate enforcement mechanisms, are capable of reducing potential cancer and noncancer risks to an acceptable level. T-BACTs may include, but are not limited to, restricting idling on-site, electrifying warehousing docks to reduce diesel particulate matter, or requiring use of newer equipment and/or vehicles. T-BACTs identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site plan.

Mitigation Measures: Impacts related to Impact AQ-3 would be less than significant with implementation of GPU PEIR MM AQ-1, AQ-2, and AQ-3. This Air Quality Technical Memorandum prepared for the project satisfies the requirements of GPU PEIR MM AQ-1 and AQ-2. The Health Risk Assessment Technical Memorandum prepared for the project satisfies the requirements of GPU PEIR MM AQ-3. Therefore, no project-specific mitigation measures are required.

Level of Significance After Mitigation: Impacts related to Impact AQ-3 were determined to be less than significant with implementation of GPU PEIR MM AQ-1, AQ-2, and AQ-3. This Air Quality Technical Memorandum prepared for the project satisfies the requirements of GPU PEIR MM AQ-1 and AQ-2. The Health Risk Assessment Technical Memorandum prepared for the project satisfies the requirements of GPU PEIR MM AQ-3. Therefore, no project-specific mitigation measures were required or included, and the impact level would remain less than significant.

AQ-4 WOULD THE PROJECT RESULT IN OTHER EMISSIONS (SUCH AS THOSE LEADING TO ODORS) ADVERSELY AFFECTING A SUBSTANTIAL NUMBER OF PEOPLE? [GPU PEIR Impact 5.2-6]

Level of Significance: Less Than Significant Impact.

The GPU PEIR Impact 5.2-6 concluded that although construction of residential, nonresidential, and nonindustrial land uses under the buildout of the GPU could result in the generation of odors, such as exhaust from construction equipment, application of asphalt and architectural coatings during construction, these construction-related odors would be temporary and intermittent and would be confined to the immediate vicinity of the construction equipment in use; short-term construction-related odors were expected to cease upon the drying or hardening of odor-producing materials. GPU PEIR Impact 5.2-6 also determined that, although residential, nonresidential, and nonindustrial uses could result in the generation of odors, such as exhaust from landscaping equipment and cooking during operation, these uses are not considered potential generators of odor that could affect a substantial number of people. Therefore, the GPU PEIR concluded that potential odor impacts from residential and nonresidential land uses associated with the GPU were considered less than significant. Industrial land uses have the potential to generate objectionable odors. Therefore, the GPU PEIR determined that mitigation measures may be necessary and included GPU PEIR MM AQ-4 to ensure that odor impacts are minimized, and facilities would comply with SCAQMD Rule 402. However, the Industrial and Industrial Flex land uses proposed under the General Plan Update are not anticipated to produce odors since the General Plan Update assumes that the odor-producing industrial land uses such as wastewater treatment plants, compost facilities, landfills, solid waste transfer stations, fiberglass manufacturing, facilities, paint/coating operations (e.g., auto body shops), dairy farms, petroleum refineries, asphalt batch manufacturing plants, chemical manufacturing, and food manufacturing facilities would not be permitted. Therefore, the GPU PEIR concluded that odor impact would be less than significant.

Construction

Construction activities associated with the project may generate detectable odors from heavy-duty equipment exhaust and architectural coatings. However, construction-related odors would be short-term in nature and cease upon project completion. In addition, the project would be required to comply with the California Code of Regulations, Title 13, Sections 2449(d)(3) and 2485, which minimizes the idling time of construction equipment either by shutting it off when not in use or by reducing the time of idling to no more than five minutes. This would further reduce the detectable odors from heavy-duty equipment exhaust. The project would also comply with the SCAQMD Rule 1113, which would minimize odor impacts from ROG emissions during architectural coating. Any impacts to existing adjacent land uses would be short-term and are less than significant.

Operations

Land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed project involves the construction of three new Class A industrial buildings for office, manufacturing, and/or warehouse use. As such, the project would not involve land uses typically associated with odor complaints. In relation to truck operations, the proposed project would be required to comply with the California Code of Regulations, Title 13, Sections 2485(C)(1) which limits the idling time of trucks to no more than five minutes and would further minimize emissions and possible odors. As discussed above, project adherence with SCAQMD Rule 402 would minimize any discharge of contaminants that could be detrimental or would cause a nuisance. As such, less than significant impacts would occur in this regard.

Conclusion

In conclusion, project-related construction and operational impacts pertaining to other air emissions (such as those leading to odors) would be less than significant, and would be the same as impacts disclosed in the GPU PEIR, which were also determined to be less than significant.

The project would not result in new significant impacts and no substantial increase in the severity of previously identified impacts disclosed in the GPU PEIR would occur. Likewise, there are no changed circumstances involving new or more severe impacts and no new information of substantial importance requiring new analysis or project-specific mitigation measures.

Although the GPU PEIR included GPU PEIR MM AQ-4, this mitigation would not apply to the project since the project would not include the development of any land uses known to generate nuisance odors.

Mitigation Measures: Impacts related to Impact AQ-4 would be less than significant. Therefore, no mitigation measures are required.

Level of Significance After Mitigation: Impacts related to Impact AQ-4 were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

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Appendix A
Air Quality Emissions Data

South Coast Technology Center Project - Existing Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	South Coast Technology Center Project - Existing
Operational Year	2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	19.6
Location	33.698722, -117.91275
County	Orange
City	Santa Ana
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5977
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.23

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

Office Park	178	1000sqft	4.09	178,026	80,312	—	—	estimated landscaped area based on google earth
Unenclosed Parking Structure	155	1000sqft	3.20	155,450	0.00	—	—	estimated building sf based on google earth
Parking Lot	126	1000sqft	2.89	0.00	0.00	—	—	estimated surface parking based on google earth
Other Non-Asphalt Surfaces	5.60	Acre	5.60	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	9.69	13.1	5.92	66.0	0.13	0.19	10.8	11.0	0.18	2.74	2.93	150	19,396	19,546	16.2	0.68	50.2	20,204
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.05	10.7	6.20	48.3	0.12	0.17	10.8	11.0	0.16	2.74	2.91	150	18,865	19,015	16.2	0.70	1.72	19,632
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.81	10.5	4.90	45.5	0.09	0.16	7.63	7.79	0.16	1.94	2.09	150	15,649	15,799	16.1	0.56	15.8	16,383

Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.24	1.91	0.89	8.30	0.02	0.03	1.39	1.42	0.03	0.35	0.38	24.8	2,591	2,616	2.66	0.09	2.61	2,712

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	6.98	6.41	4.59	50.5	0.12	0.08	10.8	10.9	0.07	2.74	2.82	—	12,188	12,188	0.60	0.48	49.8	12,397
Area	2.58	6.65	0.12	14.5	< 0.005	0.03	—	0.03	0.02	—	0.02	—	59.6	59.6	< 0.005	< 0.005	—	59.9
Energy	0.13	0.07	1.21	1.02	0.01	0.09	—	0.09	0.09	—	0.09	—	6,826	6,826	0.46	0.04	—	6,851
Water	—	—	—	—	—	—	—	—	—	—	—	60.6	322	383	6.24	0.15	—	583
Waste	—	—	—	—	—	—	—	—	—	—	—	89.2	0.00	89.2	8.92	0.00	—	312
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.43	0.43
Total	9.69	13.1	5.92	66.0	0.13	0.19	10.8	11.0	0.18	2.74	2.93	150	19,396	19,546	16.2	0.68	50.2	20,204
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	6.92	6.34	4.99	47.3	0.11	0.08	10.8	10.9	0.07	2.74	2.82	—	11,717	11,717	0.63	0.51	1.29	11,885
Area	—	4.28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.13	0.07	1.21	1.02	0.01	0.09	—	0.09	0.09	—	0.09	—	6,826	6,826	0.46	0.04	—	6,851
Water	—	—	—	—	—	—	—	—	—	—	—	60.6	322	383	6.24	0.15	—	583
Waste	—	—	—	—	—	—	—	—	—	—	—	89.2	0.00	89.2	8.92	0.00	—	312
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.43	0.43
Total	7.05	10.7	6.20	48.3	0.12	0.17	10.8	11.0	0.16	2.74	2.91	150	18,865	19,015	16.2	0.70	1.72	19,632
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	4.91	4.50	3.60	34.6	0.08	0.05	7.63	7.68	0.05	1.94	1.99	—	8,460	8,460	0.44	0.36	15.4	8,595
Area	1.77	5.91	0.08	9.93	< 0.005	0.02	—	0.02	0.01	—	0.01	—	40.9	40.9	< 0.005	< 0.005	—	41.0
Energy	0.13	0.07	1.21	1.02	0.01	0.09	—	0.09	0.09	—	0.09	—	6,826	6,826	0.46	0.04	—	6,851
Water	—	—	—	—	—	—	—	—	—	—	—	60.6	322	383	6.24	0.15	—	583
Waste	—	—	—	—	—	—	—	—	—	—	—	89.2	0.00	89.2	8.92	0.00	—	312
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.43	0.43
Total	6.81	10.5	4.90	45.5	0.09	0.16	7.63	7.79	0.16	1.94	2.09	150	15,649	15,799	16.1	0.56	15.8	16,383
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.90	0.82	0.66	6.31	0.02	0.01	1.39	1.40	0.01	0.35	0.36	—	1,401	1,401	0.07	0.06	2.54	1,423
Area	0.32	1.08	0.02	1.81	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.76	6.76	< 0.005	< 0.005	—	6.79
Energy	0.02	0.01	0.22	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	1,130	1,130	0.08	0.01	—	1,134
Water	—	—	—	—	—	—	—	—	—	—	—	10.0	53.3	63.3	1.03	0.02	—	96.6
Waste	—	—	—	—	—	—	—	—	—	—	—	14.8	0.00	14.8	1.48	0.00	—	51.7
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Total	1.24	1.91	0.89	8.30	0.02	0.03	1.39	1.42	0.03	0.35	0.38	24.8	2,591	2,616	2.66	0.09	2.61	2,712

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	6.98	6.41	4.59	50.5	0.12	0.08	10.8	10.9	0.07	2.74	2.82	—	12,188	12,188	0.60	0.48	49.8	12,397

Unenclos Parking Structure	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	0.00
Parking Lot	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	0.00
Other Non-Asphalt Surfaces	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	0.00
Total	6.98	6.41	4.59	50.5	0.12	0.08	10.8	10.9	0.07	2.74	2.82	—	12,188	12,188	0.60	0.48	49.8	12,397
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	6.92	6.34	4.99	47.3	0.11	0.08	10.8	10.9	0.07	2.74	2.82	—	11,717	11,717	0.63	0.51	1.29	11,885
Unenclosed Parking Structure	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	0.00
Parking Lot	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	0.00
Other Non-Asphalt Surfaces	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	0.00
Total	6.92	6.34	4.99	47.3	0.11	0.08	10.8	10.9	0.07	2.74	2.82	—	11,717	11,717	0.63	0.51	1.29	11,885
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	0.90	0.82	0.66	6.31	0.02	0.01	1.39	1.40	0.01	0.35	0.36	—	1,401	1,401	0.07	0.06	2.54	1,423
Unenclosed Parking Structure	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	0.00
Parking Lot	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	0.00

Other Non-Asphalt Surfaces	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	0.00
Total	0.90	0.82	0.66	6.31	0.02	0.01	1.39	1.40	0.01	0.35	0.36	—	1,401	1,401	0.07	0.06	2.54	1,423

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	4,624	4,624	0.29	0.03	—	4,641
Unenclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	—	595	595	0.04	< 0.005	—	598
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	161	161	0.01	< 0.005	—	161
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	5,380	5,380	0.33	0.04	—	5,400
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	4,624	4,624	0.29	0.03	—	4,641

Unenclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	—	595	595	0.04	< 0.005	—	598
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	161	161	0.01	< 0.005	—	161
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	5,380	5,380	0.33	0.04	—	5,400
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	766	766	0.05	0.01	—	768
Unenclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	—	98.6	98.6	0.01	< 0.005	—	99.0
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	26.6	26.6	< 0.005	< 0.005	—	26.7
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	891	891	0.06	0.01	—	894

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	0.13	0.07	1.21	1.02	0.01	0.09	—	0.09	0.09	—	0.09	—	1,446	1,446	0.13	< 0.005	—	1,450

Unenclosed	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
Parking Lot	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
Other Non-Asphalt Surfaces	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
Total	0.13	0.07	1.21	1.02	0.01	0.09	—	0.09	0.09	—	0.09	—	1,446	1,446	0.13	< 0.005	—	1,450
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	0.13	0.07	1.21	1.02	0.01	0.09	—	0.09	0.09	—	0.09	—	1,446	1,446	0.13	< 0.005	—	1,450
Unenclosed Parking Structure	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
Parking Lot	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
Other Non-Asphalt Surfaces	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
Total	0.13	0.07	1.21	1.02	0.01	0.09	—	0.09	0.09	—	0.09	—	1,446	1,446	0.13	< 0.005	—	1,450
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	0.02	0.01	0.22	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	239	239	0.02	< 0.005	—	240
Unenclosed Parking Structure	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
Parking Lot	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
Other Non-Asphalt Surfaces	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

Total	0.02	0.01	0.22	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	239	239	0.02	< 0.005	—	240

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	3.85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.58	2.38	0.12	14.5	< 0.005	0.03	—	0.03	0.02	—	0.02	—	59.6	59.6	< 0.005	< 0.005	—	59.9
Total	2.58	6.65	0.12	14.5	< 0.005	0.03	—	0.03	0.02	—	0.02	—	59.6	59.6	< 0.005	< 0.005	—	59.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	3.85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	4.28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer	—	0.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.32	0.30	0.02	1.81	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.76	6.76	< 0.005	< 0.005	—	6.79
Total	0.32	1.08	0.02	1.81	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.76	6.76	< 0.005	< 0.005	—	6.79

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	60.6	322	383	6.24	0.15	—	583
Unenclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	60.6	322	383	6.24	0.15	—	583

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	60.6	322	383	6.24	0.15	—	583
Unenclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	60.6	322	383	6.24	0.15	—	583
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	10.0	53.3	63.3	1.03	0.02	—	96.6
Unenclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	10.0	53.3	63.3	1.03	0.02	—	96.6

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	89.2	0.00	89.2	8.92	0.00	—	312
Unenclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	89.2	0.00	89.2	8.92	0.00	—	312
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	89.2	0.00	89.2	8.92	0.00	—	312
Unenclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	89.2	0.00	89.2	8.92	0.00	—	312
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	14.8	0.00	14.8	1.48	0.00	—	51.7

Unenclos Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	14.8	0.00	14.8	1.48	0.00	—	51.7

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.43	0.43
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.43	0.43
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.43	0.43
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.43	0.43
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Office Park	1,930	0.00	0.00	503,179	15,285	0.00	0.00	3,984,912
Unenclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	487,566	162,522	21,906

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Office Park	3,172,474	532	0.0330	0.0040	4,512,330
Unenclosed Parking Structure	408,523	532	0.0330	0.0040	0.00
Parking Lot	110,288	532	0.0330	0.0040	0.00
Other Non-Asphalt Surfaces	0.00	532	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Office Park	31,641,228	1,040,873
Unenclosed Parking Structure	0.00	0.00
Parking Lot	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Office Park	166	—
Unenclosed Parking Structure	0.00	—
Parking Lot	0.00	—
Other Non-Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Office Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Office Park	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	9.23	annual days of extreme heat
Extreme Precipitation	3.60	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A

Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	50.5
AQ-PM	60.9
AQ-DPM	68.1
Drinking Water	44.6
Lead Risk Housing	56.8
Pesticides	37.8
Toxic Releases	97.5
Traffic	60.8
Effect Indicators	—
CleanUp Sites	97.6
Groundwater	90.2

Haz Waste Facilities/Generators	99.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	48.2
Cardio-vascular	42.1
Low Birth Weights	80.0
Socioeconomic Factor Indicators	—
Education	76.4
Housing	40.9
Linguistic	42.8
Poverty	65.3
Unemployment	32.3

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	44.80944437
Employed	81.6501989
Median HI	48.8387014
Education	—
Bachelor's or higher	41.26780444
High school enrollment	100
Preschool enrollment	30.05261132
Transportation	—
Auto Access	61.56807391

Active commuting	62.10701912
Social	—
2-parent households	60.46451944
Voting	14.43603234
Neighborhood	—
Alcohol availability	33.20929039
Park access	22.25073784
Retail density	91.05607597
Supermarket access	52.3675093
Tree canopy	34.51815732
Housing	—
Homeownership	34.47966123
Housing habitability	30.54022841
Low-inc homeowner severe housing cost burden	18.67060182
Low-inc renter severe housing cost burden	56.30694213
Uncrowded housing	21.19851148
Health Outcomes	—
Insured adults	46.81124086
Arthritis	88.1
Asthma ER Admissions	49.9
High Blood Pressure	87.1
Cancer (excluding skin)	77.2
Asthma	51.9
Coronary Heart Disease	85.5
Chronic Obstructive Pulmonary Disease	74.0
Diagnosed Diabetes	67.4
Life Expectancy at Birth	39.3

Cognitively Disabled	15.9
Physically Disabled	81.6
Heart Attack ER Admissions	47.2
Mental Health Not Good	43.4
Chronic Kidney Disease	73.0
Obesity	55.2
Pedestrian Injuries	79.4
Physical Health Not Good	51.8
Stroke	80.6
Health Risk Behaviors	—
Binge Drinking	16.3
Current Smoker	48.5
No Leisure Time for Physical Activity	44.6
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	27.6
Elderly	92.4
English Speaking	48.5
Foreign-born	78.9
Outdoor Workers	73.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	17.6
Traffic Density	53.4
Traffic Access	46.2
Other Indices	—
Hardship	60.0

Other Decision Support	—
2016 Voting	54.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	76.0
Healthy Places Index Score for Project Location (b)	49.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per applicant provided site plan; total lot acreage adjusted to present 15.8 acre per site plan
Construction: Construction Phases	Per applicant provided construction schedule
Operations: Vehicle Data	Existing office uses would result in a 1,930 daily trips per project-specific Trip Generation Assessment.
Operations: Energy Use	—

Operations: Fleet Mix	—
Construction: Architectural Coatings	Per SCAQMD Rule 1113
Operations: Architectural Coatings	Per SCAQMD Rule 1113

South Coast Technology Center Project - Proposed Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	South Coast Technology Center Project - Proposed
Construction Start Date	8/1/2024
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	19.6
Location	33.698722, -117.91275
County	Orange
City	Santa Ana
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5977
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.24

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

Industrial Park	325	1000sqft	7.46	325,044	96,724	—	—	three buildings
Parking Lot	497	Space	7.60	0.00	0.00	—	—	—
Other Asphalt Surfaces	2.81	1000sqft	0.06	0.00	0.00	—	—	outdoor covered patio areas
Other Asphalt Surfaces	31.2	1000sqft	0.72	0.00	0.00	—	—	estimated truck docks areas
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0.00	—	—	4-axle
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0.00	—	—	2- and 3-axle

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Energy	E-1	Buildings Exceed 2019 Title 24 Building Envelope Energy Efficiency Standards
Water	W-4	Require Low-Flow Water Fixtures
Water	W-5	Design Water-Efficient Landscapes
Waste	S-1/S-2	Implement Waste Reduction Plan

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.52	2.74	29.0	24.4	0.05	1.10	3.61	4.71	1.02	0.67	1.69	—	6,931	6,931	0.41	0.56	11.5	7,116

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	71.1	71.0	50.6	53.4	0.11	1.99	5.39	7.39	1.83	1.70	3.52	—	14,687	14,687	0.65	0.70	0.45	14,911
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.59	5.36	8.50	13.1	0.02	0.33	1.37	1.65	0.30	0.33	0.59	—	3,615	3,615	0.13	0.19	3.05	3,679
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.02	0.98	1.55	2.39	< 0.005	0.06	0.25	0.30	0.05	0.06	0.11	—	598	598	0.02	0.03	0.50	609

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	3.52	2.74	29.0	24.4	0.05	1.10	3.61	4.71	1.02	0.67	1.69	—	6,931	6,931	0.41	0.56	7.73	7,116
2025	2.03	1.66	12.7	21.6	0.04	0.44	2.24	2.68	0.41	0.54	0.95	—	5,908	5,908	0.21	0.32	11.5	6,021
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	6.61	5.38	50.6	53.4	0.11	1.99	5.39	7.39	1.83	1.70	3.52	—	14,687	14,687	0.65	0.70	0.45	14,911
2025	71.1	71.0	12.8	20.5	0.04	0.44	2.24	2.68	0.41	0.54	0.95	—	5,822	5,822	0.22	0.32	0.30	5,923
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.08	0.87	8.50	8.42	0.02	0.33	0.98	1.31	0.30	0.25	0.55	—	2,336	2,336	0.11	0.14	1.23	2,382
2025	5.59	5.36	8.04	13.1	0.02	0.28	1.37	1.65	0.26	0.33	0.59	—	3,615	3,615	0.13	0.19	3.05	3,679
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.20	0.16	1.55	1.54	< 0.005	0.06	0.18	0.24	0.05	0.05	0.10	—	387	387	0.02	0.02	0.20	394

2025	1.02	0.98	1.47	2.39	< 0.005	0.05	0.25	0.30	0.05	0.06	0.11	—	598	598	0.02	0.03	0.50	609

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	3.52	2.74	29.0	24.4	0.05	1.10	3.61	4.71	1.02	0.67	1.69	—	6,931	6,931	0.41	0.56	7.73	7,116
2025	2.03	1.66	12.7	21.6	0.04	0.44	2.24	2.68	0.41	0.54	0.95	—	5,908	5,908	0.21	0.32	11.5	6,021
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	6.61	5.38	50.6	53.4	0.11	1.99	5.39	7.39	1.83	1.70	3.52	—	14,687	14,687	0.65	0.70	0.45	14,911
2025	71.1	71.0	12.8	20.5	0.04	0.44	2.24	2.68	0.41	0.54	0.95	—	5,822	5,822	0.22	0.32	0.30	5,923
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.08	0.87	8.50	8.42	0.02	0.33	0.98	1.31	0.30	0.25	0.55	—	2,336	2,336	0.11	0.14	1.23	2,382
2025	5.59	5.36	8.04	13.1	0.02	0.28	1.37	1.65	0.26	0.33	0.59	—	3,615	3,615	0.13	0.19	3.05	3,679
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.20	0.16	1.55	1.54	< 0.005	0.06	0.18	0.24	0.05	0.05	0.10	—	387	387	0.02	0.02	0.20	394
2025	1.02	0.98	1.47	2.39	< 0.005	0.05	0.25	0.30	0.05	0.06	0.11	—	598	598	0.02	0.03	0.50	609

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	14.4	12.6	26.4	48.0	0.28	0.41	14.3	14.7	0.39	3.74	4.13	361	40,233	40,594	38.7	4.22	173	42,992
Mit.	14.4	12.6	26.4	48.0	0.28	0.41	14.3	14.7	0.39	3.74	4.13	184	39,601	39,785	20.9	4.18	173	41,728
% Reduced	—	—	—	—	—	—	—	—	—	—	—	49%	2%	2%	46%	1%	—	3%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	11.9	10.2	27.4	32.0	0.28	0.39	14.3	14.7	0.37	3.74	4.11	361	39,875	40,236	38.7	4.24	86.9	42,553
Mit.	11.9	10.2	27.4	32.0	0.28	0.39	14.3	14.7	0.37	3.74	4.11	184	39,243	39,427	21.0	4.20	86.9	41,289
% Reduced	—	—	—	—	—	—	—	—	—	—	—	49%	2%	2%	46%	1%	—	3%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	13.6	11.8	27.8	42.3	0.28	0.40	14.1	14.5	0.38	3.70	4.08	361	39,994	40,355	38.7	4.24	123	42,709
Mit.	13.6	11.8	27.8	42.3	0.28	0.40	14.1	14.5	0.38	3.70	4.08	184	39,363	39,547	21.0	4.20	123	41,444
% Reduced	—	—	—	—	—	—	—	—	—	—	—	49%	2%	2%	46%	1%	—	3%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.48	2.16	5.08	7.72	0.05	0.07	2.58	2.65	0.07	0.68	0.74	59.8	6,621	6,681	6.41	0.70	20.3	7,071
Mit.	2.48	2.16	5.08	7.72	0.05	0.07	2.58	2.65	0.07	0.68	0.74	30.5	6,517	6,547	3.47	0.69	20.3	6,862
% Reduced	—	—	—	—	—	—	—	—	—	—	—	49%	2%	2%	46%	1%	—	3%

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	4.49	2.85	26.3	33.9	0.28	0.39	14.3	14.7	0.37	3.74	4.11	—	30,554	30,554	1.64	3.80	88.0	31,815
Area	9.93	9.73	0.12	14.1	< 0.005	0.03	—	0.03	0.02	—	0.02	—	58.1	58.1	< 0.005	< 0.005	—	58.3
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	8,865	8,865	0.55	0.07	—	8,899
Water	—	—	—	—	—	—	—	—	—	—	—	144	755	900	14.8	0.36	—	1,376
Waste	—	—	—	—	—	—	—	—	—	—	—	217	0.00	217	21.7	0.00	—	760
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	84.6	84.6
Total	14.4	12.6	26.4	48.0	0.28	0.41	14.3	14.7	0.39	3.74	4.13	361	40,233	40,594	38.7	4.22	173	42,992
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.47	2.82	27.4	32.0	0.28	0.39	14.3	14.7	0.37	3.74	4.11	—	30,254	30,254	1.65	3.81	2.28	31,434
Area	7.41	7.41	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	8,865	8,865	0.55	0.07	—	8,899
Water	—	—	—	—	—	—	—	—	—	—	—	144	755	900	14.8	0.36	—	1,376
Waste	—	—	—	—	—	—	—	—	—	—	—	217	0.00	217	21.7	0.00	—	760
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	84.6	84.6
Total	11.9	10.2	27.4	32.0	0.28	0.39	14.3	14.7	0.37	3.74	4.11	361	39,875	40,236	38.7	4.24	86.9	42,553
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.46	2.81	27.8	32.6	0.28	0.39	14.1	14.5	0.37	3.70	4.07	—	30,334	30,334	1.65	3.81	38.0	31,549
Area	9.13	9.00	0.08	9.68	< 0.005	0.02	—	0.02	0.01	—	0.01	—	39.8	39.8	< 0.005	< 0.005	—	40.0
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	8,865	8,865	0.55	0.07	—	8,899
Water	—	—	—	—	—	—	—	—	—	—	—	144	755	900	14.8	0.36	—	1,376
Waste	—	—	—	—	—	—	—	—	—	—	—	217	0.00	217	21.7	0.00	—	760
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	84.6	84.6
Total	13.6	11.8	27.8	42.3	0.28	0.40	14.1	14.5	0.38	3.70	4.08	361	39,994	40,355	38.7	4.24	123	42,709
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.81	0.51	5.07	5.95	0.05	0.07	2.58	2.65	0.07	0.68	0.74	—	5,022	5,022	0.27	0.63	6.29	5,223
Area	1.67	1.64	0.01	1.77	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.59	6.59	< 0.005	< 0.005	—	6.62

Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,468	1,468	0.09	0.01	—	1,473
Water	—	—	—	—	—	—	—	—	—	—	—	23.8	125	149	2.45	0.06	—	228
Waste	—	—	—	—	—	—	—	—	—	—	—	36.0	0.00	36.0	3.59	0.00	—	126
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14.0	14.0
Total	2.48	2.16	5.08	7.72	0.05	0.07	2.58	2.65	0.07	0.68	0.74	59.8	6,621	6,681	6.41	0.70	20.3	7,071

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.49	2.85	26.3	33.9	0.28	0.39	14.3	14.7	0.37	3.74	4.11	—	30,554	30,554	1.64	3.80	88.0	31,815
Area	9.93	9.73	0.12	14.1	< 0.005	0.03	—	0.03	0.02	—	0.02	—	58.1	58.1	< 0.005	< 0.005	—	58.3
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	8,312	8,312	0.52	0.06	—	8,344
Water	—	—	—	—	—	—	—	—	—	—	—	130	677	807	13.4	0.32	—	1,236
Waste	—	—	—	—	—	—	—	—	—	—	—	54.3	0.00	54.3	5.43	0.00	—	190
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	84.6	84.6
Total	14.4	12.6	26.4	48.0	0.28	0.41	14.3	14.7	0.39	3.74	4.13	184	39,601	39,785	20.9	4.18	173	41,728
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.47	2.82	27.4	32.0	0.28	0.39	14.3	14.7	0.37	3.74	4.11	—	30,254	30,254	1.65	3.81	2.28	31,434
Area	7.41	7.41	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	8,312	8,312	0.52	0.06	—	8,344
Water	—	—	—	—	—	—	—	—	—	—	—	130	677	807	13.4	0.32	—	1,236
Waste	—	—	—	—	—	—	—	—	—	—	—	54.3	0.00	54.3	5.43	0.00	—	190
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	84.6	84.6
Total	11.9	10.2	27.4	32.0	0.28	0.39	14.3	14.7	0.37	3.74	4.11	184	39,243	39,427	21.0	4.20	86.9	41,289

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.46	2.81	27.8	32.6	0.28	0.39	14.1	14.5	0.37	3.70	4.07	—	30,334	30,334	1.65	3.81	38.0	31,549
Area	9.13	9.00	0.08	9.68	< 0.005	0.02	—	0.02	0.01	—	0.01	—	39.8	39.8	< 0.005	< 0.005	—	40.0
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	8,312	8,312	0.52	0.06	—	8,344
Water	—	—	—	—	—	—	—	—	—	—	—	130	677	807	13.4	0.32	—	1,236
Waste	—	—	—	—	—	—	—	—	—	—	—	54.3	0.00	54.3	5.43	0.00	—	190
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	84.6	84.6
Total	13.6	11.8	27.8	42.3	0.28	0.40	14.1	14.5	0.38	3.70	4.08	184	39,363	39,547	21.0	4.20	123	41,444
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.81	0.51	5.07	5.95	0.05	0.07	2.58	2.65	0.07	0.68	0.74	—	5,022	5,022	0.27	0.63	6.29	5,223
Area	1.67	1.64	0.01	1.77	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.59	6.59	< 0.005	< 0.005	—	6.62
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,376	1,376	0.09	0.01	—	1,381
Water	—	—	—	—	—	—	—	—	—	—	—	21.5	112	134	2.21	0.05	—	205
Waste	—	—	—	—	—	—	—	—	—	—	—	8.99	0.00	8.99	0.90	0.00	—	31.5
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14.0	14.0
Total	2.48	2.16	5.08	7.72	0.05	0.07	2.58	2.65	0.07	0.68	0.74	30.5	6,517	6,547	3.47	0.69	20.3	6,862

3. Construction Emissions Details

3.1. Demolition (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.12	2.62	24.9	21.7	0.03	1.06	—	1.06	0.98	—	0.98	—	3,425	3,425	0.14	0.03	—	3,437

Demolitio	—	—	—	—	—	—	2.57	2.57	—	0.39	0.39	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.12	2.62	24.9	21.7	0.03	1.06	—	1.06	0.98	—	0.98	—	3,425	3,425	0.14	0.03	—	3,437
Demolitio n	—	—	—	—	—	—	2.57	2.57	—	0.39	0.39	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38	0.32	3.00	2.62	< 0.005	0.13	—	0.13	0.12	—	0.12	—	413	413	0.02	< 0.005	—	414
Demolitio n	—	—	—	—	—	—	0.31	0.31	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.55	0.48	< 0.005	0.02	—	0.02	0.02	—	0.02	—	68.4	68.4	< 0.005	< 0.005	—	68.6
Demolitio n	—	—	—	—	—	—	0.06	0.06	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.06	0.90	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	203	203	< 0.005	0.01	0.83	206
Vendor	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	0.00

Hauling	0.34	0.07	4.09	1.79	0.02	0.04	0.84	0.88	0.04	0.24	0.28	—	3,303	3,303	0.26	0.53	6.90	3,473
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.07	0.78	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	193	193	< 0.005	0.01	0.02	196
Vendor	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	0.00
Hauling	0.33	0.07	4.24	1.80	0.02	0.04	0.84	0.88	0.04	0.24	0.28	—	3,304	3,304	0.26	0.53	0.18	3,467
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	23.6	23.6	< 0.005	< 0.005	0.04	24.0
Vendor	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	0.00
Hauling	0.04	0.01	0.52	0.22	< 0.005	< 0.005	0.10	0.11	< 0.005	0.03	0.03	—	398	398	0.03	0.06	0.36	418
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.91	3.91	< 0.005	< 0.005	0.01	3.97
Vendor	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	0.00
Hauling	0.01	< 0.005	0.09	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	65.9	65.9	0.01	0.01	0.06	69.2

3.2. Demolition (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.12	2.62	24.9	21.7	0.03	1.06	—	1.06	0.98	—	0.98	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	2.57	2.57	—	0.39	0.39	—	—	—	—	—	—	—
Onsite truck	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.12	2.62	24.9	21.7	0.03	1.06	—	1.06	0.98	—	0.98	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	2.57	2.57	—	0.39	0.39	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38	0.32	3.00	2.62	< 0.005	0.13	—	0.13	0.12	—	0.12	—	413	413	0.02	< 0.005	—	414
Demolition	—	—	—	—	—	—	0.31	0.31	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.55	0.48	< 0.005	0.02	—	0.02	0.02	—	0.02	—	68.4	68.4	< 0.005	< 0.005	—	68.6
Demolition	—	—	—	—	—	—	0.06	0.06	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.06	0.90	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	203	203	< 0.005	0.01	0.83	206
Vendor	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	0.00
Hauling	0.34	0.07	4.09	1.79	0.02	0.04	0.84	0.88	0.04	0.24	0.28	—	3,303	3,303	0.26	0.53	6.90	3,473

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.07	0.78	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	193	193	< 0.005	0.01	0.02	196
Vendor	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	0.00
Hauling	0.33	0.07	4.24	1.80	0.02	0.04	0.84	0.88	0.04	0.24	0.28	—	3,304	3,304	0.26	0.53	0.18	3,467
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	23.6	23.6	< 0.005	< 0.005	0.04	24.0
Vendor	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	0.00
Hauling	0.04	0.01	0.52	0.22	< 0.005	< 0.005	0.10	0.11	< 0.005	0.03	0.03	—	398	398	0.03	0.06	0.36	418
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.91	3.91	< 0.005	< 0.005	0.01	3.97
Vendor	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	0.00
Hauling	0.01	< 0.005	0.09	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	65.9	65.9	0.01	0.01	0.06	69.2

3.3. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.19	3.52	34.3	30.2	0.06	1.45	—	1.45	1.33	—	1.33	—	6,598	6,598	0.27	0.05	—	6,621

Dust From Material Movemen	—	—	—	—	—	—	2.40	2.40	—	0.95	0.95	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38	0.32	3.10	2.73	0.01	0.13	—	0.13	0.12	—	0.12	—	597	597	0.02	< 0.005	—	599
Dust From Material Movemen	—	—	—	—	—	—	0.22	0.22	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.57	0.50	< 0.005	0.02	—	0.02	0.02	—	0.02	—	98.8	98.8	< 0.005	< 0.005	—	99.1
Dust From Material Movemen	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.09	1.04	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	258	258	< 0.005	0.01	0.03	261
Vendor	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	0.00
Hauling	0.20	0.04	2.50	1.06	0.01	0.02	0.50	0.52	0.02	0.14	0.16	—	1,946	1,946	0.16	0.31	0.11	2,043

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	23.6	23.6	< 0.005	< 0.005	0.04	24.0
Vendor	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	0.00
Hauling	0.02	< 0.005	0.23	0.10	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01	—	176	176	0.01	0.03	0.16	185
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.91	3.91	< 0.005	< 0.005	0.01	3.97
Vendor	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	0.00
Hauling	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	29.1	29.1	< 0.005	< 0.005	0.03	30.6

3.4. Grading (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.19	3.52	34.3	30.2	0.06	1.45	—	1.45	1.33	—	1.33	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movemen:	—	—	—	—	—	—	2.40	2.40	—	0.95	0.95	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38	0.32	3.10	2.73	0.01	0.13	—	0.13	0.12	—	0.12	—	597	597	0.02	< 0.005	—	599

Dust From Material Movemen	—	—	—	—	—	—	0.22	0.22	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.57	0.50	< 0.005	0.02	—	0.02	0.02	—	0.02	—	98.8	98.8	< 0.005	< 0.005	—	99.1
Dust From Material Movemen	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.09	1.04	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	258	258	< 0.005	0.01	0.03	261
Vendor	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	0.00
Hauling	0.20	0.04	2.50	1.06	0.01	0.02	0.50	0.52	0.02	0.14	0.16	—	1,946	1,946	0.16	0.31	0.11	2,043
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	23.6	23.6	< 0.005	< 0.005	0.04	24.0
Vendor	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	0.00
Hauling	0.02	< 0.005	0.23	0.10	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01	—	176	176	0.01	0.03	0.16	185
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.91	3.91	< 0.005	< 0.005	0.01	3.97
Vendor	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	0.00

Hauling	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	29.1	29.1	< 0.005	< 0.005	0.03	30.6

3.5. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	1.34	1.57	< 0.005	0.06	—	0.06	0.05	—	0.05	—	286	286	0.01	< 0.005	—	287
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.24	0.29	< 0.005	0.01	—	0.01	0.01	—	0.01	—	47.4	47.4	< 0.005	< 0.005	—	47.5
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.57	0.50	0.60	7.08	0.00	0.00	1.78	1.78	0.00	0.42	0.42	—	1,760	1,760	0.03	0.07	0.20	1,781
Vendor	0.14	0.05	1.91	0.94	0.01	0.02	0.46	0.48	0.01	0.13	0.14	—	1,727	1,727	0.10	0.24	0.12	1,799
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.89	0.00	0.00	0.21	0.21	0.00	0.05	0.05	—	213	213	< 0.005	0.01	0.39	216
Vendor	0.02	0.01	0.23	0.11	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	—	206	206	0.01	0.03	0.24	215
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.16	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	35.3	35.3	< 0.005	< 0.005	0.06	35.7
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	34.1	34.1	< 0.005	< 0.005	0.04	35.6
Hauling	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	0.00

3.6. Building Construction (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	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	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	1.34	1.57	< 0.005	0.06	—	0.06	0.05	—	0.05	—	286	286	0.01	< 0.005	—	287
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.24	0.29	< 0.005	0.01	—	0.01	0.01	—	0.01	—	47.4	47.4	< 0.005	< 0.005	—	47.5
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.57	0.50	0.60	7.08	0.00	0.00	1.78	1.78	0.00	0.42	0.42	—	1,760	1,760	0.03	0.07	0.20	1,781
Vendor	0.14	0.05	1.91	0.94	0.01	0.02	0.46	0.48	0.01	0.13	0.14	—	1,727	1,727	0.10	0.24	0.12	1,799
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.89	0.00	0.00	0.21	0.21	0.00	0.05	0.05	—	213	213	< 0.005	0.01	0.39	216
Vendor	0.02	0.01	0.23	0.11	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	—	206	206	0.01	0.03	0.24	215
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.16	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	35.3	35.3	< 0.005	< 0.005	0.06	35.7
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	34.1	34.1	< 0.005	< 0.005	0.04	35.6
Hauling	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	0.00

3.7. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.81	0.68	6.32	7.89	0.01	0.26	—	0.26	0.24	—	0.24	—	1,450	1,450	0.06	0.01	—	1,455
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	1.15	1.44	< 0.005	0.05	—	0.05	0.04	—	0.04	—	240	240	0.01	< 0.005	—	241
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.55	0.48	0.47	7.64	0.00	0.00	1.78	1.78	0.00	0.42	0.42	—	1,812	1,812	0.02	0.06	6.86	1,839
Vendor	0.13	0.05	1.77	0.88	0.01	0.01	0.46	0.47	0.01	0.13	0.14	—	1,699	1,699	0.10	0.24	4.63	1,776
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.55	0.48	0.54	6.61	0.00	0.00	1.78	1.78	0.00	0.42	0.42	—	1,725	1,725	0.02	0.06	0.18	1,745
Vendor	0.13	0.05	1.83	0.90	0.01	0.01	0.46	0.47	0.01	0.13	0.14	—	1,699	1,699	0.10	0.24	0.12	1,772
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.33	0.29	0.32	4.18	0.00	0.00	1.07	1.07	0.00	0.25	0.25	—	1,057	1,057	0.01	0.04	1.79	1,071
Vendor	0.08	0.03	1.12	0.54	0.01	0.01	0.27	0.28	0.01	0.08	0.08	—	1,027	1,027	0.06	0.14	1.21	1,072
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.06	0.76	0.00	0.00	0.19	0.19	0.00	0.05	0.05	—	175	175	< 0.005	0.01	0.30	177
Vendor	0.01	0.01	0.20	0.10	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	170	170	0.01	0.02	0.20	178
Hauling	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	0.00

3.8. Building Construction (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.81	0.68	6.32	7.89	0.01	0.26	—	0.26	0.24	—	0.24	—	1,450	1,450	0.06	0.01	—	1,455
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	1.15	1.44	< 0.005	0.05	—	0.05	0.04	—	0.04	—	240	240	0.01	< 0.005	—	241
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.55	0.48	0.47	7.64	0.00	0.00	1.78	1.78	0.00	0.42	0.42	—	1,812	1,812	0.02	0.06	6.86	1,839
Vendor	0.13	0.05	1.77	0.88	0.01	0.01	0.46	0.47	0.01	0.13	0.14	—	1,699	1,699	0.10	0.24	4.63	1,776
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.55	0.48	0.54	6.61	0.00	0.00	1.78	1.78	0.00	0.42	0.42	—	1,725	1,725	0.02	0.06	0.18	1,745

Vendor	0.13	0.05	1.83	0.90	0.01	0.01	0.46	0.47	0.01	0.13	0.14	—	1,699	1,699	0.10	0.24	0.12	1,772
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.33	0.29	0.32	4.18	0.00	0.00	1.07	1.07	0.00	0.25	0.25	—	1,057	1,057	0.01	0.04	1.79	1,071
Vendor	0.08	0.03	1.12	0.54	0.01	0.01	0.27	0.28	0.01	0.08	0.08	—	1,027	1,027	0.06	0.14	1.21	1,072
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.06	0.76	0.00	0.00	0.19	0.19	0.00	0.05	0.05	—	175	175	< 0.005	0.01	0.30	177
Vendor	0.01	0.01	0.20	0.10	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	170	170	0.01	0.02	0.20	178
Hauling	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	0.00

3.9. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	2.00	2.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.03	0.02	0.22	0.30	< 0.005	0.01	—	0.01	0.01	—	0.01	—	45.6	45.6	< 0.005	< 0.005	—	45.7
Paving	0.06	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.54	7.54	< 0.005	< 0.005	—	7.57
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.06	0.73	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	189	189	< 0.005	0.01	0.02	192
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.79	5.79	< 0.005	< 0.005	0.01	5.86
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.96	0.96	< 0.005	< 0.005	< 0.005	0.97
Vendor	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	0.00
Hauling	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	0.00

3.10. Paving (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	2.00	2.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.22	0.30	< 0.005	0.01	—	0.01	0.01	—	0.01	—	45.6	45.6	< 0.005	< 0.005	—	45.7
Paving	0.06	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.54	7.54	< 0.005	< 0.005	—	7.57
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.06	0.73	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	189	189	< 0.005	0.01	0.02	192
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.79	5.79	< 0.005	< 0.005	0.01	5.86
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.96	0.96	< 0.005	< 0.005	< 0.005	0.97
Vendor	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	0.00
Hauling	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	0.00

3.11. Architectural Coating (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	70.8	70.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.05	8.05	< 0.005	< 0.005	—	8.08
Architectural Coatings	4.27	4.27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.33	1.33	< 0.005	< 0.005	—	1.34
Architectural Coatings	0.78	0.78	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.11	1.32	0.00	0.00	0.36	0.36	0.00	0.08	0.08	—	345	345	< 0.005	0.01	0.04	349
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	21.1	21.1	< 0.005	< 0.005	0.04	21.3
Vendor	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	0.00

Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.49	3.49	< 0.005	< 0.005	0.01	3.53
Vendor	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	0.00
Hauling	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	0.00

3.12. Architectural Coating (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	70.8	70.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.05	8.05	< 0.005	< 0.005	—	8.08
Architectural Coatings	4.27	4.27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.33	1.33	< 0.005	< 0.005	—	1.34
Architectural Coatings	0.78	0.78	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.11	1.32	0.00	0.00	0.36	0.36	0.00	0.08	0.08	—	345	345	< 0.005	0.01	0.04	349
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	21.1	21.1	< 0.005	< 0.005	0.04	21.3
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.49	3.49	< 0.005	< 0.005	0.01	3.53
Vendor	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	0.00
Hauling	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	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	2.41	2.27	1.26	22.5	0.06	0.03	6.70	6.74	0.03	1.69	1.72	—	6,202	6,202	0.19	0.16	21.2	6,275
Parking Lot	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	0.00
Other Asphalt Surfaces	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	0.00
User Defined Industrial	2.07	0.57	25.0	11.4	0.22	0.35	7.59	7.95	0.34	2.05	2.38	—	24,352	24,352	1.45	3.64	66.8	25,540
Total	4.49	2.85	26.3	33.9	0.28	0.39	14.3	14.7	0.37	3.74	4.11	—	30,554	30,554	1.64	3.80	88.0	31,815
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	2.40	2.26	1.41	20.6	0.06	0.03	6.70	6.74	0.03	1.69	1.72	—	5,899	5,899	0.21	0.17	0.55	5,955
Parking Lot	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	0.00
Other Asphalt Surfaces	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	0.00
User Defined Industrial	2.06	0.56	26.0	11.4	0.22	0.35	7.59	7.95	0.34	2.05	2.38	—	24,356	24,356	1.45	3.64	1.73	25,479
Total	4.47	2.82	27.4	32.0	0.28	0.39	14.3	14.7	0.37	3.74	4.11	—	30,254	30,254	1.65	3.81	2.28	31,434

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.44	0.41	0.26	3.87	0.01	0.01	1.21	1.21	0.01	0.31	0.31	—	990	990	0.03	0.03	1.51	1,001
Parking Lot	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	0.00
Other Asphalt Surfaces	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	0.00
User Defined Industrial	0.38	0.10	4.81	2.08	0.04	0.06	1.37	1.44	0.06	0.37	0.43	—	4,032	4,032	0.24	0.60	4.78	4,222
Total	0.81	0.51	5.07	5.95	0.05	0.07	2.58	2.65	0.07	0.68	0.74	—	5,022	5,022	0.27	0.63	6.29	5,223

4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	2.41	2.27	1.26	22.5	0.06	0.03	6.70	6.74	0.03	1.69	1.72	—	6,202	6,202	0.19	0.16	21.2	6,275
Parking Lot	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	0.00
Other Asphalt Surfaces	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	0.00
User Defined Industrial	2.07	0.57	25.0	11.4	0.22	0.35	7.59	7.95	0.34	2.05	2.38	—	24,352	24,352	1.45	3.64	66.8	25,540
Total	4.49	2.85	26.3	33.9	0.28	0.39	14.3	14.7	0.37	3.74	4.11	—	30,554	30,554	1.64	3.80	88.0	31,815
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Industrial Park	2.40	2.26	1.41	20.6	0.06	0.03	6.70	6.74	0.03	1.69	1.72	—	5,899	5,899	0.21	0.17	0.55	5,955
Parking Lot	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	0.00
Other Asphalt Surfaces	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	0.00
User Defined Industrial	2.06	0.56	26.0	11.4	0.22	0.35	7.59	7.95	0.34	2.05	2.38	—	24,356	24,356	1.45	3.64	1.73	25,479
Total	4.47	2.82	27.4	32.0	0.28	0.39	14.3	14.7	0.37	3.74	4.11	—	30,254	30,254	1.65	3.81	2.28	31,434
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.44	0.41	0.26	3.87	0.01	0.01	1.21	1.21	0.01	0.31	0.31	—	990	990	0.03	0.03	1.51	1,001
Parking Lot	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	0.00
Other Asphalt Surfaces	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	0.00
User Defined Industrial	0.38	0.10	4.81	2.08	0.04	0.06	1.37	1.44	0.06	0.37	0.43	—	4,032	4,032	0.24	0.60	4.78	4,222
Total	0.81	0.51	5.07	5.95	0.05	0.07	2.58	2.65	0.07	0.68	0.74	—	5,022	5,022	0.27	0.63	6.29	5,223

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	8,442	8,442	0.52	0.06	—	8,474
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	423	423	0.03	< 0.005	—	424
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	8,865	8,865	0.55	0.07	—	8,899
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	8,442	8,442	0.52	0.06	—	8,474
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	423	423	0.03	< 0.005	—	424
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	8,865	8,865	0.55	0.07	—	8,899
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	1,398	1,398	0.09	0.01	—	1,403
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	70.0	70.0	< 0.005	< 0.005	—	70.2
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,468	1,468	0.09	0.01	—	1,473

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	7,890	7,890	0.49	0.06	—	7,919
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	423	423	0.03	< 0.005	—	424
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	8,312	8,312	0.52	0.06	—	8,344
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	7,890	7,890	0.49	0.06	—	7,919
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	423	423	0.03	< 0.005	—	424
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	8,312	8,312	0.52	0.06	—	8,344
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	1,306	1,306	0.08	0.01	—	1,311
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	70.0	70.0	< 0.005	< 0.005	—	70.2
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,376	1,376	0.09	0.01	—	1,381

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	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
Parking Lot	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
Other Asphalt Surfaces	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
User Defined Industrial	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

Total	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	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
Parking Lot	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
Other Asphalt Surfaces	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
User Defined Industrial	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
Total	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	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
Parking Lot	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
Other Asphalt Surfaces	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
User Defined Industrial	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
Total	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

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	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
Parking Lot	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
Other Asphalt Surfaces	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
User Defined Industrial	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
Total	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	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
Parking Lot	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
Other Asphalt Surfaces	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
User Defined Industrial	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
Total	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	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
Parking Lot	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

Other Asphalt Surfaces	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
User Defined Industrial	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
Total	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

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	6.98	6.98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.43	0.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.51	2.32	0.12	14.1	< 0.005	0.03	—	0.03	0.02	—	0.02	—	58.1	58.1	< 0.005	< 0.005	—	58.3
Total	9.93	9.73	0.12	14.1	< 0.005	0.03	—	0.03	0.02	—	0.02	—	58.1	58.1	< 0.005	< 0.005	—	58.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	6.98	6.98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	0.43	0.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	7.41	7.41	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.27	1.27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.08	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.31	0.29	0.01	1.77	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.59	6.59	< 0.005	< 0.005	—	6.62
Total	1.67	1.64	0.01	1.77	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.59	6.59	< 0.005	< 0.005	—	6.62

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	6.98	6.98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.43	0.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.51	2.32	0.12	14.1	< 0.005	0.03	—	0.03	0.02	—	0.02	—	58.1	58.1	< 0.005	< 0.005	—	58.3
Total	9.93	9.73	0.12	14.1	< 0.005	0.03	—	0.03	0.02	—	0.02	—	58.1	58.1	< 0.005	< 0.005	—	58.3

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	6.98	6.98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.43	0.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	7.41	7.41	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.27	1.27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.08	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.31	0.29	0.01	1.77	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.59	6.59	< 0.005	< 0.005	—	6.62
Total	1.67	1.64	0.01	1.77	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.59	6.59	< 0.005	< 0.005	—	6.62

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	144	755	900	14.8	0.36	—	1,376

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	144	755	900	14.8	0.36	—	1,376
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	144	755	900	14.8	0.36	—	1,376
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	144	755	900	14.8	0.36	—	1,376
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	23.8	125	149	2.45	0.06	—	228
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	23.8	125	149	2.45	0.06	—	228

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	130	677	807	13.4	0.32	—	1,236
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	130	677	807	13.4	0.32	—	1,236
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	130	677	807	13.4	0.32	—	1,236
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	130	677	807	13.4	0.32	—	1,236
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Industrial Park	—	—	—	—	—	—	—	—	—	—	—	21.5	112	134	2.21	0.05	—	205
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	21.5	112	134	2.21	0.05	—	205

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	217	0.00	217	21.7	0.00	—	760
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	217	0.00	217	21.7	0.00	—	760

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	217	0.00	217	21.7	0.00	—	760
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	217	0.00	217	21.7	0.00	—	760
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	36.0	0.00	36.0	3.59	0.00	—	126
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	36.0	0.00	36.0	3.59	0.00	—	126

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Industrial Park	—	—	—	—	—	—	—	—	—	—	—	54.3	0.00	54.3	5.43	0.00	—	190
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	54.3	0.00	54.3	5.43	0.00	—	190
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	54.3	0.00	54.3	5.43	0.00	—	190
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	54.3	0.00	54.3	5.43	0.00	—	190
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	8.99	0.00	8.99	0.90	0.00	—	31.5
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	8.99	0.00	8.99	0.90	0.00	—	31.5

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	84.6	84.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	84.6	84.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	84.6	84.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	84.6	84.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14.0	14.0
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14.0	14.0

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	84.6	84.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	84.6	84.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	84.6	84.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	84.6	84.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14.0	14.0
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14.0	14.0

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetatio	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	8/1/2024	10/1/2024	5.00	44.0	—
Grading	Grading	10/2/2024	11/15/2024	5.00	33.0	—
Building Construction	Building Construction	11/1/2024	11/5/2025	5.00	264	—
Paving	Paving	11/6/2025	11/20/2025	5.00	11.0	—
Architectural Coating	Architectural Coating	12/1/2025	12/30/2025	5.00	22.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73

Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40

Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	46.5	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	27.4	20.0	HHDT
Grading	Onsite truck	—	—	HHDT

Building Construction	—	—	—	—
Building Construction	Worker	137	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	53.3	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	27.3	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	46.5	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	27.4	20.0	HHDT

Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	137	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	53.3	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	27.3	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

Architectural Coating	0.00	0.00	487,566	162,522	21,906

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	178,026	—
Grading	0.00	7,235	99.0	0.00	—
Paving	0.00	0.00	0.00	0.00	8.38

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Industrial Park	0.00	0%
Parking Lot	7.60	100%
Other Asphalt Surfaces	0.06	100%
Other Asphalt Surfaces	0.72	100%
User Defined Industrial	0.00	0%
User Defined Industrial	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	532	0.03	< 0.005
2025	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Industrial Park	1,212	1,212	1,212	442,380	9,598	9,598	9,598	3,503,419
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	146	146	146	53,290	5,825	5,825	5,825	2,126,271
User Defined Industrial	186	186	186	67,890	2,641	2,641	2,641	964,038

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Industrial Park	1,212	1,212	1,212	442,380	9,598	9,598	9,598	3,503,419
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	146	146	146	53,290	5,825	5,825	5,825	2,126,271

User Defined Industrial	186	186	186	67,890	2,641	2,641	2,641	964,038

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	487,566	162,522	21,906

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Industrial Park	5,792,377	532	0.0330	0.0040	0.00
Parking Lot	290,005	532	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	532	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	532	0.0330	0.0040	0.00
User Defined Industrial	0.00	532	0.0330	0.0040	0.00
User Defined Industrial	0.00	532	0.0330	0.0040	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Industrial Park	5,413,105	532	0.0330	0.0040	0.00
Parking Lot	290,005	532	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	532	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	532	0.0330	0.0040	0.00
User Defined Industrial	0.00	532	0.0330	0.0040	0.00
User Defined Industrial	0.00	532	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Industrial Park	75,166,425	1,253,579
Parking Lot	0.00	0.00
Other Asphalt Surfaces	0.00	0.00

Other Asphalt Surfaces	0.00	0.00
User Defined Industrial	0.00	0.00
User Defined Industrial	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Industrial Park	67,762,532	593,833
Parking Lot	0.00	0.00
Other Asphalt Surfaces	0.00	0.00
Other Asphalt Surfaces	0.00	0.00
User Defined Industrial	0.00	0.00
User Defined Industrial	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Industrial Park	403	—
Parking Lot	0.00	—
Other Asphalt Surfaces	0.00	—
Other Asphalt Surfaces	0.00	—
User Defined Industrial	0.00	—
User Defined Industrial	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)

Industrial Park	101	—
Parking Lot	0.00	—
Other Asphalt Surfaces	0.00	—
Other Asphalt Surfaces	0.00	—
User Defined Industrial	0.00	—
User Defined Industrial	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Industrial Park	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Industrial Park	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	9.23	annual days of extreme heat
Extreme Precipitation	3.60	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A

Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	50.5
AQ-PM	60.9
AQ-DPM	68.1
Drinking Water	44.6
Lead Risk Housing	56.8
Pesticides	37.8
Toxic Releases	97.5
Traffic	60.8
Effect Indicators	—
CleanUp Sites	97.6
Groundwater	90.2
Haz Waste Facilities/Generators	99.4
Impaired Water Bodies	0.00
Solid Waste	0.00

Sensitive Population	—
Asthma	48.2
Cardio-vascular	42.1
Low Birth Weights	80.0
Socioeconomic Factor Indicators	—
Education	76.4
Housing	40.9
Linguistic	42.8
Poverty	65.3
Unemployment	32.3

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	44.80944437
Employed	81.6501989
Median HI	48.8387014
Education	—
Bachelor's or higher	41.26780444
High school enrollment	100
Preschool enrollment	30.05261132
Transportation	—
Auto Access	61.56807391
Active commuting	62.10701912
Social	—
2-parent households	60.46451944

Voting	14.43603234
Neighborhood	—
Alcohol availability	33.20929039
Park access	22.25073784
Retail density	91.05607597
Supermarket access	52.3675093
Tree canopy	34.51815732
Housing	—
Homeownership	34.47966123
Housing habitability	30.54022841
Low-inc homeowner severe housing cost burden	18.67060182
Low-inc renter severe housing cost burden	56.30694213
Uncrowded housing	21.19851148
Health Outcomes	—
Insured adults	46.81124086
Arthritis	88.1
Asthma ER Admissions	49.9
High Blood Pressure	87.1
Cancer (excluding skin)	77.2
Asthma	51.9
Coronary Heart Disease	85.5
Chronic Obstructive Pulmonary Disease	74.0
Diagnosed Diabetes	67.4
Life Expectancy at Birth	39.3
Cognitively Disabled	15.9
Physically Disabled	81.6
Heart Attack ER Admissions	47.2

Mental Health Not Good	43.4
Chronic Kidney Disease	73.0
Obesity	55.2
Pedestrian Injuries	79.4
Physical Health Not Good	51.8
Stroke	80.6
Health Risk Behaviors	—
Binge Drinking	16.3
Current Smoker	48.5
No Leisure Time for Physical Activity	44.6
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	27.6
Elderly	92.4
English Speaking	48.5
Foreign-born	78.9
Outdoor Workers	73.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	17.6
Traffic Density	53.4
Traffic Access	46.2
Other Indices	—
Hardship	60.0
Other Decision Support	—
2016 Voting	54.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	76.0
Healthy Places Index Score for Project Location (b)	49.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per applicant provided site plan; total lot acreage adjusted to present 15.8 acre per site plan
Construction: Construction Phases	Per applicant provided construction schedule
Operations: Vehicle Data	Trip rate based on ITE 140 per project-specific Trip Generation Assessment. Trip length associated with passenger cars (modeled under "industrial park") is default; trip length associated with 4-axle trucks (modeled under first "user defined industrial") and 2- and 3-axle trucks (modeled under "second user defined industrial") are per SCAQMD's WAIRE program.
Operations: Energy Use	Per project applicant, there will be no natural gas use.

Operations: Fleet Mix	Fleet mix based on ITE 140 per project-specific Trip Generation Assessment. Passenger cars modeled under "industrial park"; 4-axle trucks modeled under first "user defined industrial"; 2- and 3-axle trucks modeled under second "user defined industrial".
Construction: Architectural Coatings	Per SCAQMD Rule 1113
Operations: Architectural Coatings	Per SCAQMD Rule 1113