# Air Quality Assessment Hume SoCal Camp Expansion Project County of San Bernardino, California



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#### **LIST OF ABBREVIATED TERMS**

AQMP air quality management plan

AB Assembly Bill

ADT average daily traffic

CAPCOA California Air Pollution Control Officers Association

CARB California Air Resources Board

CAAQS California Ambient Air Quality Standards

CCAA California Clean Air Act

California Emissions Estimator Model
CEQA California Environmental Quality Act

CO carbon monoxide

cy cubic yards

DPM diesel particulate matter FCAA Federal Clean Air Act  $H_2S$  hydrogen sulfide

Pb lead

LST localized significance threshold µg/m³ micrograms per cubic meter mg/m³ milligrams per cubic meter

NAAQS National Ambient Air Quality Standards

NO<sub>2</sub> nitrogen dioxide NO<sub>x</sub> nitrogen oxide

O<sub>3</sub> ozone

PM<sub>10</sub> particulate matter less than 10 microns in diameter PM<sub>2.5</sub> particulate matter less than 2.5 microns in diameter

ppm parts per million ROG reactive organic gases

RTP/SCS Regional Transportation Plan/Sustainable Communities Strategy

SB Senate Bill

SRA source receptor area SCAB South Coast Air Basin

SCAQMD South Coast Air Quality Management District
SCAG Southern California Association of Governments

sf square foot SO<sub>4-2</sub> sulfates SO<sub>2</sub> sulfur dioxide

TAC toxic air contaminant

U.S. EPA U.S. Environmental Protection Agency

VOC volatile organic compound

# 1 INTRODUCTION

This report documents the results of an Air Quality Assessment completed for the Hume SoCal Camp Expansion Project ("Project" or "Proposed Project"). The purpose of this Air Quality Assessment is to evaluate the potential construction and operational emissions associated with the Project and determine the level of impact the Project would have on the environment.

#### 1.1 Project Location and Setting

The Project site is approximately 251 acres located in an unincorporated mountain region of San Bernardino County, along Green Valley Lake Road and approximately 0.4 miles northwest of State Route 18 (SR-18); refer to **Exhibit 1: Regional Location Map**. Surrounding the Project site is the Green Valley Lake Community to the north, the Running Springs to the southwest, and the City of Big Bear to the east, as shown in **Exhibit 2: Local Vicinity Map**.

A portion of the Project site is currently developed with improvements related to the existing Hume SoCal campground facilities. The remaining surrounding areas are vacant and contain forest land. The Project land use designation is Rural Living (RL) per the San Bernardino County General Plan (Countywide Plan). The RL land use area primarily allows for the development of residential development. Typical uses within RL land use areas also include public and quasi-public facilities such as parks, religious facilities and schools. The Project area is also located within the Hilltop Community Plan which allows for larger-scale master planned developments which can include a combination of residential, commercial, and/ or manufacturing activities that maximizes the utilization of natural and human-generated resources in rural areas.

# 1.2 Project Description

The Project involves the expansion of campground uses for the existing Southern California Hume Lake Christian Camp (Hume SoCal) campground to accommodate up to an additional 3,000 occupants. This would be accomplished through the use of existing campground structures as well as the development of additional campground and recreational facilities and uses within a 251-acre area of the Green Valley Lake community, refer to **Exhibit 3: Conceptual Site Plan**. New campground structures proposed for the Project would be developed in five phases.

Each phase of the Project would include the development of expanded infrastructure, additional amenities, support structures, and buildings necessary to accommodate expanded camper capacity as well as paved parking areas and paved access roadways.

Phase 1 of the Project would involve the development of facilities to be used as a Junior High Camp. Proposed residential structures within the Phase 1 area include an expanded welcome center, private administration and guest speaker residences, staff housing, and student dormitories. Phase 1 also includes the development of a gymnasium, bus parking, a snack shop, a chapel, converting an existing chapel to a small meeting space, an expansion to the existing dining hall, a maintenance building, an amphitheater, and restrooms. Outdoor recreation facilities include grass quads. Existing and proposed facilities within Phase 1 would accommodate up to 784 occupants.

Phase 2 of the Project would involve the development of facilities to be used as a High School Camp. Proposed residential structures within the Phase 2 area include staff housing buildings and student dormitories. Phase 2 also includes the development of a large dining hall, gymnasium, a chapel, amphitheater, and restrooms. Outdoor recreation facilities include grass quads, a swimming pool, and a recreation pond. Existing and proposed facilities within Phase 2 would accommodate up to 1,000 occupants.

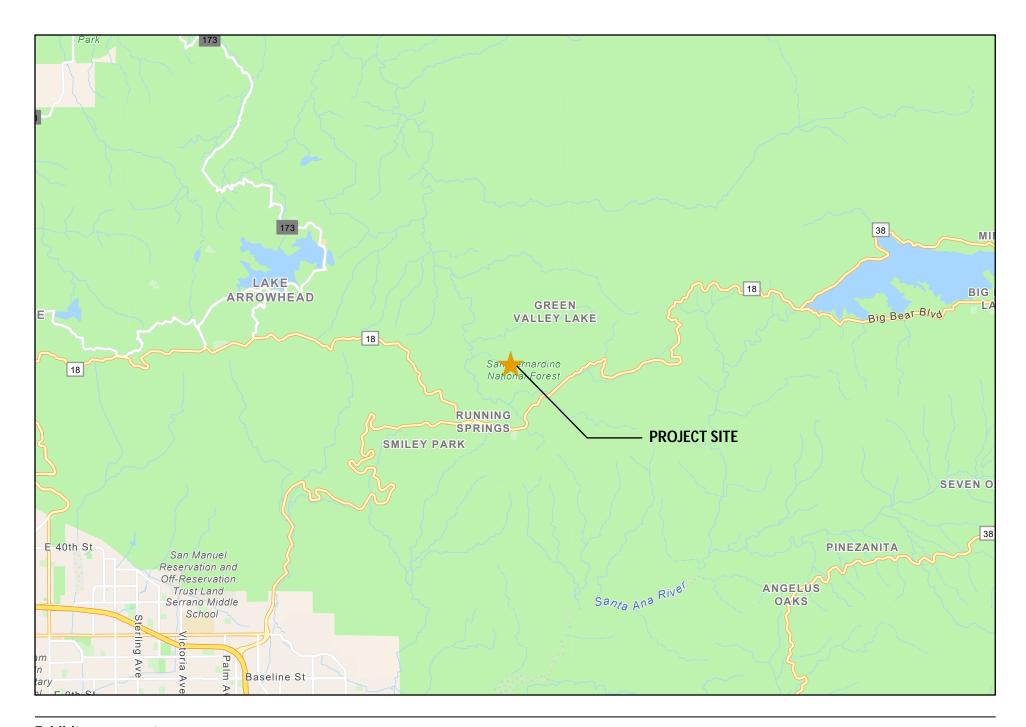
Phase 3 of the Project proposes the development of an Adult Lodge. Phase 3 would include the development of one adult lodge with included access road. Existing and proposed facilities within Phase 3 would accommodate up to 140 occupants.

Phase 4 of the Project would include the development of an Elementary Age Camp and associated facilities. Proposed residential structures within Phase 4 include student yurt tents. Phase 4 also includes the development of restroom facilities with showers and an amphitheater. Outdoor recreation facilities include grass quads, a dining canopy, a swimming pool, and a recreation pond. Existing and proposed facilities within Phase 4 would accommodate up to 500 occupants.

Phase 5 of the Project proposes the creation of a tent-based youth camp, Wildwood Camp. Residential structures proposed for this phase consist of yurt tents. Phase 5 also includes the development of restroom facilities with showers and an amphitheater. Outdoor recreation facilities include grass quads, a dining canopy, a swimming pool, and a recreation pond. Existing and proposed facilities within Phase 5 would accommodate up to 130 occupants.

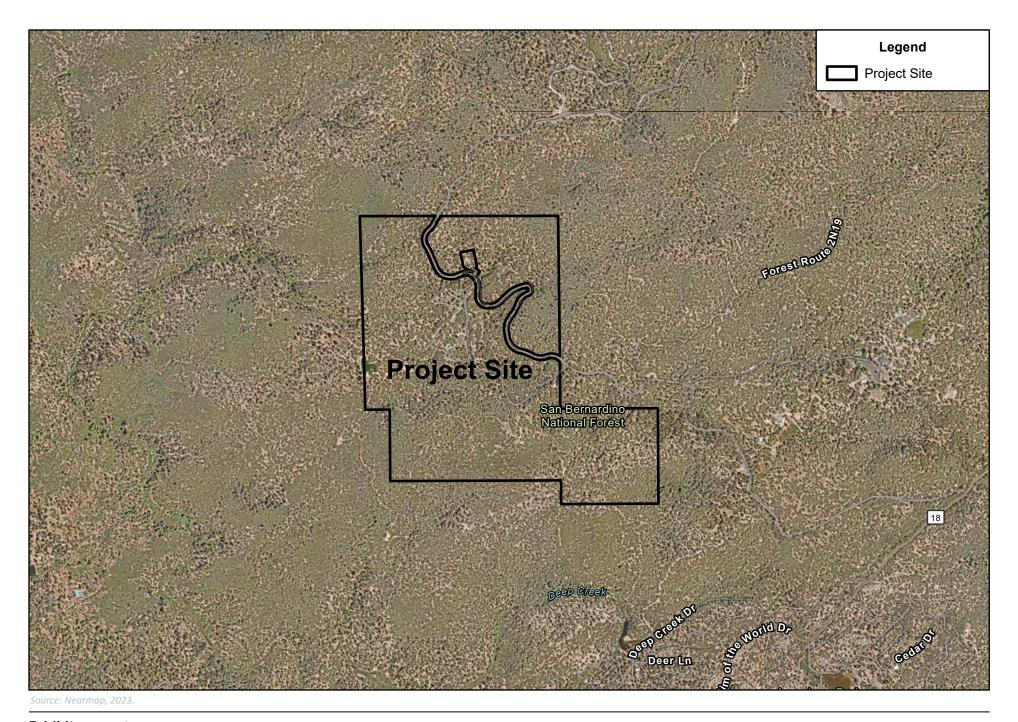
#### **Project Phasing and Construction**

Although the Project is anticipated to be constructed in five phases, to analyze a worst-case scenario, construction modeling assumed all five phases of the Project would be constructed simultaneously and completed within two years, beginning in June 2025 and finishing in June 2027.



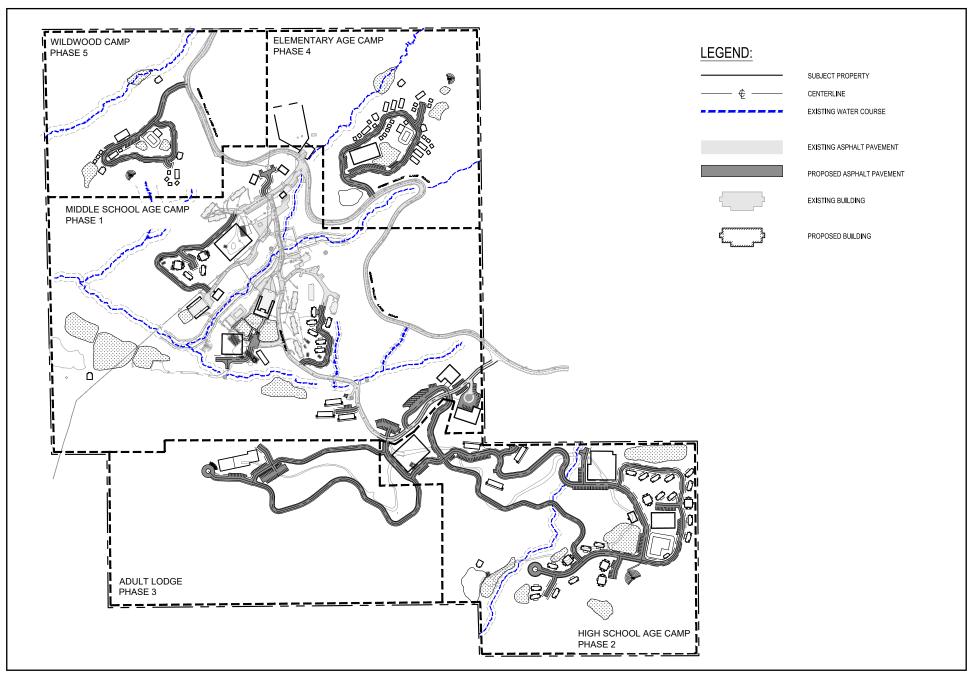




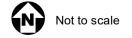


**Exhibit 2: Local Vicinity Map**Hume SoCal Campground Expansion Project
San Bernardino County





Source: Kimley-Horn, 2025.





# 2 ENVIRONMENTAL SETTING

# 2.1 Climate and Meteorology

The California Air Resources Board (CARB) divides the State into 15 air basins that share similar meteorological and topographical features. The Project is located within the South Coast Air Basin (SCAB), which includes the non-desert portions of Los Angeles, Riverside, and San Bernardino counties, as well as all of Orange County. The SCAB is on a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean on the southwest and high mountains forming the remainder of the perimeter. Air quality in this area is determined by natural factors such as topography, meteorology, and climate, in addition to the presence of existing air pollution sources and ambient conditions. These factors along with applicable regulations are discussed below.

The SCAB is part of a semi-permanent high-pressure zone in the eastern Pacific Ocean. As a result, the climate is mild and tempered by cool sea breezes. This usually mild weather pattern is occasionally interrupted by periods of extreme heat, winter storms, and Santa Ana winds. The annual average temperature throughout the 6,645-square-mile SCAB ranges from low 60 to high 80 degrees Fahrenheit with little variance. With more oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas.

Contrasting the steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all annual rainfall occurs between the months of November and April. Summer rainfall is reduced to widely scattered thundershowers near the coast, with slightly heavier activity in the east and over the mountains.

Although the SCAB has a semiarid climate, the air closer to the Earth's surface is typically moist because of the presence of a shallow marine layer. Except for occasional periods when dry, continental air is brought into the SCAB by offshore winds, the "ocean effect" is dominant. Periods of heavy fog are frequent and low clouds known as high fog are characteristic climatic features, especially along the coast. Annual average humidity is 70 percent at the coast and 57 percent in the eastern portions of the SCAB.

Wind patterns across the SCAB are characterized by westerly or southwesterly on-shore winds during the day and easterly or northeasterly breezes at night. Wind speed is typically higher during the dry summer months than during the rainy winter. Between periods of wind, air stagnation may occur in both the morning and evening hours. Air stagnation is one of the critical determinants of air quality conditions on any given day. During winter and fall, surface high-pressure systems over the SCAB, combined with other meteorological conditions, result in very strong, downslope Santa Ana winds. These winds normally continue for a few days before predominant meteorological conditions are reestablished.

The mountain ranges to the east affect the diffusion of pollutants by inhibiting the eastward transport of pollutants. Air quality in the SCAB generally ranges from fair to poor and is similar to air quality in most of coastal southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions.

South Coast Air Quality Management District, CEQA Air Quality Handbook, 1993.

In addition to the characteristic wind patterns that affect the rate and orientation of horizontal pollutant transport, two distinct types of temperature inversions control the vertical depth through which air pollutants are mixed. These inversions are the marine inversion and the radiation inversion. The height of the base of the inversion at any given time is called the "mixing height." The combination of winds and inversions is a critical determinant leading to highly degraded air quality for the SCAB in the summer and generally good air quality in the winter.

# 2.2 Air Pollutants of Concern

The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by State and federal laws. These regulated air pollutants are known as "criteria air pollutants" and are categorized into primary and secondary pollutants.

Primary air pollutants are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxide (NO<sub>X</sub>), sulfur dioxide (SO<sub>2</sub>), coarse particulate matter (PM<sub>10</sub>), fine particulate matter (PM<sub>2.5</sub>), and lead are primary air pollutants. Of these, CO, NO<sub>X</sub>, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> are primary criteria pollutants. ROG and NO<sub>X</sub> are criteria pollutant precursors and form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. For example, the criteria pollutant ozone (O<sub>3</sub>) is formed by a chemical reaction between ROG and NO<sub>X</sub> in the presence of sunlight. O<sub>3</sub> and nitrogen dioxide (NO<sub>2</sub>) are the principal secondary pollutants. Sources and health effects commonly associated with criteria pollutants are summarized in **Table 1**: **Air Contaminants and Associated Public Health Concerns**.

Table 1: Air Contaminants and Associated Public Health Concerns							
Pollutant	Major Man-Made Sources	Human Health and Environmental Effects					
Particulate Matter (PM <sub>10</sub> and PM <sub>2.5</sub> )	Power plants, steel mills, chemical plants, unpaved roads and parking lots, woodburning stoves and fireplaces, automobiles, and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; asthma; chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility.					
Ozone (O <sub>3</sub> )	Formed by a chemical reaction between reactive organic gases/volatile organic compounds (ROG or VOC)¹ and nitrogen oxides (NO <sub>x</sub> ) in the presence of sunlight. Motor vehicle exhaust industrial emissions, gasoline storage and transport, solvents, paints and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing, and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield.					
Sulfur Dioxide (SO <sub>2</sub> )	A colorless gas formed when fuel containing sulfur is burned and when gasoline is extracted from oil. Examples are petroleum refineries, cement manufacturing, metal processing facilities, locomotives, and ships.	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid which can damage marble, iron and steel. Damages crops and natural vegetation. Impairs visibility. Precursor to acid rain.					
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.					
Nitrogen Dioxide (NO <sub>2</sub> )	A reddish-brown gas formed during fuel combustion for motor vehicles and industrial sources. Sources include motor	Respiratory irritant; aggravates lung and heart problems. Precursor to O <sub>3</sub> . Contributes to global warming and nutrient overloading					

Table 1: Air Co	Table 1: Air Contaminants and Associated Public Health Concerns						
Pollutant	Major Man-Made Sources	Human Health and Environmental Effects					
	vehicles, electric utilities, and other sources	which deteriorates water quality. Causes					
	that burn fuel.	brown discoloration of the atmosphere.					
Lead (Pb)	Lead is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been motor vehicles (such as cars and trucks) and industrial sources. Due to the phase out of leaded gasoline, metals processing is the major source of lead emissions to the air today. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery	Exposure to lead occurs mainly through inhalation of air and ingestion of lead in food, water, soil, or dust. It accumulates in the blood, bones, and soft tissues and can adversely affect the kidneys, liver, nervous system, and other organs. Excessive exposure to lead may cause neurological impairments such as seizures, mental retardation, and behavioral disorders. Even at low doses, lead exposure is associated with damage to the nervous systems of fetuses and young children, resulting in learning deficits and					
	manufacturers.	lowered IQ.					

¹ Volatile Organic Compounds (VOCs or Reactive Organic Gases [ROG]) are hydrocarbons/organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases including ROGs and VOCs. Both ROGs and VOCs are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. The major sources of hydrocarbons are combustion engine exhaust, oil refineries, and oil-fueled power plants; other common sources are petroleum fuels, solvents, dry cleaning solutions, and paint (via evaporation).

Source: California Air Resources Board (CARB), Common Air Pollutants, https://ww2.arb.ca.gov/resources/common-air-pollutants, Accessed November 30, 2023.

#### **Toxic Air Contaminants**

Toxic air contaminants (TACs) are airborne substances that can cause short-term (acute) or long-term (i.e., chronic, carcinogenic or cancer causing) adverse human health effects (i.e., injury or illness). TACs include both organic and inorganic chemical substances. They may be emitted from a variety of common sources including gasoline stations, automobiles, dry cleaners, industrial operations, and painting operations. The current California list of TACs includes more than 200 compounds, including particulate emissions from diesel-fueled engines.

CARB identified diesel particulate matter (DPM) as a TAC. DPM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances. Diesel exhaust is a complex mixture of particles and gases produced when an engine burns diesel fuel. DPM is a concern because it causes lung cancer; many compounds found in diesel exhaust are carcinogenic. DPM includes the particle-phase constituents in diesel exhaust. The chemical composition and particle sizes of DPM vary between different engine types (heavy-duty, light-duty), engine operating conditions (idle, accelerate, decelerate), fuel formulations (high/low sulfur fuel), and the year of the engine. Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and diesel exhaust can cause coughs, headaches, light-headedness, and nausea. DPM poses the greatest health risk among the TACs. Almost all diesel exhaust particle mass is 10 microns or less in diameter. Due to their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

# **Ambient Air Quality**

CARB monitors ambient air quality at approximately 250 air monitoring stations across the State. These stations usually measure pollutant concentrations ten feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. Existing ambient air quality levels, historical

trends, and projections near the Project are documented by measurements made by the South Coast Air Quality Management District (SCAQMD), the air pollution regulatory agency in the SCAB that maintains air quality monitoring stations which process ambient air quality measurements.

Pollutants of concern in the SCAB include O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. The closest air monitoring station to the Project that monitors ambient concentrations of these pollutants is the Crestline Monitoring Station (located approximately 10 miles to the west).<sup>2</sup> Local air quality data from 2020 to 2022 are provided in **Table 2: Ambient Air Quality Data**, which lists the monitored maximum concentrations and number of exceedances of state or federal air quality standards for each year.

Criteria Pollutant	2020	2021	2022
Ozone (O <sub>3</sub> ) <sup>1</sup>		•	•
1-hour Maximum Concentration (ppm)	0.129	0.148	0.143
8-hour Maximum Concentration (ppm)	0.139	0.120	0.122
Number of Days Standard Exceeded			
CAAQS 1-hour (>0.070 ppm)	69	65	61
NAAQS 8-hour (>0.070 ppm)	118	110	100
Carbon Monoxide (CO) <sup>1</sup>			
1-hour Maximum Concentration (ppm)	1.907	1.966	1.749
Number of Days Standard Exceeded			
NAAQS 1-hour (>35 ppm)	0	0	0
CAAQS 1-hour (>20 ppm)	0	0	0
Nitrogen Dioxide (NO <sub>2</sub> ) <sup>2</sup>			
1-hour Maximum Concentration (ppm)	0.054	0.056	0.053
Number of Days Standard Exceeded			
NAAQS 1-hour (>0.100 ppm)	0	0	0
CAAQS 1-hour (>0.18 ppm)	0	0	0
Particulate Matter Less Than 10 Microns (PM <sub>10</sub> ) <sup>1</sup>			
National 24-hour Maximum Concentration	51.8	33.4	49.1
State 24-hour Maximum Concentration	43.8	28.2	41.5
State Annual Average Concentration (CAAQS=20 μg/m³)	19.2	16.4	14.7
Number of Days Standard Exceeded			
NAAQS 24-hour (>150 μg/m³)	0	0	0
CAAQS 24-hour (>50 μg/m³)	0	0	0
Particulate Matter Less Than 2.5 Microns (PM <sub>2.5</sub> ) <sup>2</sup>			
National 24-hour Maximum Concentration	56.6	57.9	40.1
State 24-hour Maximum Concentration	56.6	57.9	40.1
Number of Days Standard Exceeded			
NAAQS 24-hour (>35 μg/m³)	6	3	6

#### Notes

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NAAQS = National Ambient Air Quality Standards; CAAQS = California Ambient Air Quality Standards; ppm = parts per million;  $\mu g/m^3 = micrograms per cubic meter; - = not measured;* = insufficient data$ 

Source: All pollutant measurements are from the CARB Aerometric Data Analysis and Management system database (https://www.arb.ca.gov/adam) except for CO, which were retrieved from the CARB Air Quality and Meteorological Information System (https://www.arb.ca.gov/aqmis2/aqdselect.php).

<sup>&</sup>lt;sup>1</sup> Measurements taken at the Crestline Monitoring Station at 24171 Lake Dr, Crestline, CA 92325 (CARB# 36181)

<sup>&</sup>lt;sup>2</sup> Measurements taken at the San Bernardino Monitoring Station at 24302 E. 4th St, San Bernardino, CA 92410 (CARB# 36203)

<sup>&</sup>lt;sup>2</sup> California Air Resources Board, Air Monitoring Sites – Interactive Map. 2022, https://ww2.arb.ca.gov/applications/airmonitoring-sites-interactive-map, Accessed November 2023.

# 2.3 Sensitive Receptors

Sensitive populations are more susceptible to the effects of air pollution than is the general population. Sensitive receptors that are in proximity to localized sources of toxics are of particular concern. Land uses considered sensitive receptors include residences, schools, playgrounds, childcare centers, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. The nearest sensitive receptor to the Project is another campground, Camp Pondo, located approximately 1,200 feet to the east, on the opposite side of Green Valley Lake Road.

# 3 REGULATORY SETTING

#### 3.1 Federal

# **Federal Clean Air Act**

Air quality is federally protected by the Federal Clean Air Act (FCAA) and its amendments. Under the FCAA, the United States Environmental Protection Agency (U.S. EPA) developed the primary and secondary National Ambient Air Quality Standards (NAAQS) for the criteria air pollutants including O<sub>3</sub>, NO<sub>2</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and lead. Proposed projects in or near nonattainment areas could be subject to more stringent air-permitting requirements. The FCAA requires each state to prepare a State Implementation Plan (SIP) to demonstrate how it would attain the NAAQS within the federally imposed deadlines.

The U.S. EPA can withhold certain transportation funds from states that fail to comply with the planning requirements of the FCAA. If a state fails to correct these planning deficiencies within two years of Federal notification, the U.S. EPA is required to develop a Federal implementation plan for the identified nonattainment area or areas. The provisions of 40 Code of Federal Regulations Parts 51 and 93 apply in all nonattainment and maintenance areas for transportation-related criteria pollutants for which the area is designated nonattainment or has a maintenance plan. Applicable NAAQS are summarized in **Table 3: State and Federal Ambient Air Quality Standards**.

#### 3.2 State of California

#### California Air Resources Board

CARB administers the air quality policy in California. The California Ambient Air Quality Standards (CAAQS) were established in 1969 pursuant to the Mulford-Carrell Act. These standards, included with the NAAQS in **Table 3**, 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 California Clean Air Act (CCAA) requires that each local air district prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with CAAQS. These AQMPs also serve as the basis for the preparation of the SIP for meeting federal clean air standards for the State of California. Like the U.S. EPA, CARB also designates areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data shows that a State standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events such as wildfires, volcanoes, etc. are not considered violations of a State standard, and are not used as a basis for designating areas as nonattainment. The applicable State standards are summarized in **Table 3**.

Table 3: State and Federal Ambient Air Quality Standards							
Pollutant	Averaging Time	State Standards <sup>1</sup>	National Standards <sup>2</sup>				
Ozone (O <sub>3</sub> ) <sup>2, 5, 7</sup>	1 Hour	0.09 ppm (180 μg/m³)	NA				
Ozone (O <sub>3</sub> ) -> ->	8 Hour	0.070 ppm (137 μg/m <sup>3</sup> )	0.070 ppm (137 μg/m³)				
Carbon Manavida (CO)	1 Hour	20 ppm (23 mg/m <sup>3</sup> )	35 ppm (40 mg/m <sup>3</sup> )				
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10 mg/m <sup>3</sup> )	9 ppm (10 mg/m³)				
Nitragan Diavida (NO.)	1 Hour	0.18 ppm (339 μg/m³)	0.100 ppm (188 μg/m³)				
Nitrogen Dioxide (NO <sub>2</sub> )	Annual Arithmetic Mean	0.030 ppm (57 μg/m³)	0.053 ppm (100 μg/m³)				
	1 Hour	0.25 ppm (655 μg/m³)	0.075 ppm (196 μg/m³)				
Sulfur Dioxide (SO <sub>2</sub> ) <sup>8</sup>	24 Hour	0.04 ppm (105 μg/m³)	0.14 ppm (365 μg/m³)				
	Annual Arithmetic Mean	NA	0.03 ppm (80 μg/m³)				
Particulate Matter (PM <sub>10</sub> ) <sup>1, 3, 6</sup>	24-Hour	50 μg/m³	150 μg/m³				
Faiticulate Matter (FIMI10)	Annual Arithmetic Mean	20 μg/m³	NA				
Fine Particulate Matter (PM <sub>2.5</sub> ) <sup>3, 4, 6, 9</sup>	24-Hour	NA	35 μg/m³				
Fille Falticulate Matter (FIM2.5) 37.73	Annual Arithmetic Mean	12 μg/m³	9 μg/m³				
Sulfates (SO <sub>4-2</sub> )	24 Hour	25 μg/m³	NA				
	30-Day Average	1.5 μg/m³	NA				
Lead (Pb) <sup>10, 11</sup>	Calendar Quarter	NA	1.5 μg/m³				
	Rolling 3-Month Average	NA	0.15 μg/m³				
Hydrogen Sulfide (H₂S)	1 Hour	0.03 ppm (42 μg/m <sup>3</sup> )	NA				
Vinyl Chloride (C₂H₃CI) 10	24 Hour	0.01 ppm (26 μg/m³)	NA				

#### Notes:

ppm = parts per million;  $\mu g/m^3$  = micrograms per cubic meter;  $mg/m^3$  = milligrams per cubic meter; - = no information available.

- California standards for O<sub>3</sub>, carbon monoxide (except Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, suspended particulate matter PM<sub>10</sub>, and visibility reducing particles are values that are not to be exceeded. The standards for sulfates, Lake Tahoe carbon monoxide, lead, hydrogen sulfide, and vinyl chloride are not to be equaled or exceeded. If the standard is for a 1-hour, 8-hour or 24-hour average (i.e. all standards except for lead and the PM<sub>10</sub> annual standard), then some measurements may be excluded. Measurements are excluded that CARB determines would occur less than once per year on the average. The Lake Tahoe carbon monoxide standard is 6.0 ppm, a level one-half the national standard and two-thirds the State standard.
- National standards shown are the "primary standards" designed to protect public health. National standards other than for O<sub>3</sub>, particulates and those based on annual averages are not to be exceeded more than once a year. The 1-hour O<sub>3</sub> standard is attained if, during the most recent three-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one. The 8-hour O<sub>3</sub> standard is attained when the 3-year average of the 4<sup>th</sup> highest daily concentrations is 0.070 ppm or less. The 24-hour PM<sub>10</sub> standard is attained when the 3-year average of the 99<sup>th</sup> percentile of monitored concentrations is less than 150 μg/m<sub>3</sub>. The 24-hour PM<sub>2.5</sub> standard is attained when the 3-year average of 98<sup>th</sup> percentiles is less than 35 μg/m<sup>3</sup>.
- Except for the national particulate standards, annual standards are met if the annual average falls below the standard at every site. The national annual particulate standard for PM<sub>10</sub> is met if the 3-year average falls below the standard at every site. The annual PM<sub>2.5</sub> standard is met if the 3-year average of annual averages spatially-averaged across officially designed clusters of sites falls below the standard.
  - NAAQS are set by the U.S. EPA at levels determined to be protective of public health with an adequate margin of safety.
- <sup>4</sup> On October 1, 2015, the national 8-hour O₃ primary and secondary standards were lowered from 0.075 to 0.070 ppm. An area will meet the standard if the fourth-highest maximum daily 8-hour O₃ concentration per year, averaged over three years, is equal to or less than 0.070 ppm. U.S. EPA will make recommendations on attainment designations by October 1, 2016, and issue final designations October 1, 2017. Nonattainment areas will have until 2020 to late 2037 to meet the health standard, with attainment dates varying based on the O₃ level in the area.
- $^{5}$  The national 1-hour O<sub>3</sub> standard was revoked by the U.S. EPA on June 15, 2005.
- <sup>6</sup> In June 2002, CARB established new annual standards for PM<sub>2.5</sub> and PM<sub>10</sub>.
- The 8-hour California O₃ standard was approved by the CARB on April 28, 2005, and became effective on May 17, 2006.
- On June 2, 2010, the U.S. EPA established a new 1-hour SO<sub>2</sub> standard, effective August 23, 2010, which is based on the 3-year average of the annual 99<sup>th</sup> percentile of 1-hour daily maximum concentrations. The existing 0.030 ppm annual and 0.14 ppm 24-hour SO<sub>2</sub> NAAQS however must continue to be used until one year following U.S. EPA initial designations of the new 1-hour SO<sub>2</sub> NAAQS.
- <sup>9</sup> In December 2012, U.S. EPA strengthened the annual PM<sub>2.5</sub> NAAQS from 15.0 to 12.0 μg/m³. In December 2014, the U.S. EPA issued final area designations for the 2012 primary annual PM<sub>2.5</sub> NAAQS. Areas designated "unclassifiable/attainment" must continue to take steps to prevent their air quality from deteriorating to unhealthy levels. The effective date of this standard is April 15, 2015.
- 10 CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure below which there are no adverse health effects determined.
- 11 National lead standards, rolling 3-month average: final rule signed October 15, 2008. Final designations effective December 31, 2011.

Source: South Coast Air Quality Management District, Air Quality Management Plan, 2022; California Air Resources Board, Ambient Air Quality Standards, December 2022.

# 3.3 Regional

# **South Coast Air Quality Management District**

The SCAQMD is the air pollution control agency for Orange County and the urban portions of Los Angeles, Riverside, and San Bernardino Counties. The agency's primary responsibility is ensuring that the CAAQS and NAAQS are attained and maintained in the SCAB. The SCAQMD is also responsible for adopting and enforcing rules and regulations concerning air pollutant sources, issuing permits for stationary sources of air pollutants, inspecting stationary sources of air pollutants, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, awarding grants to reduce motor vehicle emissions, conducting public education campaigns, and many other activities. All projects are subject to SCAQMD rules and regulations in effect at the time of construction.

The SCAQMD is also the lead agency in charge of developing the AQMP, with input from the Southern California Association of Governments (SCAG) and CARB. The AQMP is a comprehensive plan that includes control strategies for stationary and area sources, as well as for on-road and off-road mobile sources. SCAG has the primary responsibility for providing future growth projections and the development and implementation of transportation control measures. CARB, in coordination with federal agencies, provides the control element for mobile sources.

The 2022 AQMP was adopted by the SCAQMD Governing Board on December 2, 2022. The purpose of the AQMP is to set forth a comprehensive and integrated program that would lead the SCAB into compliance with the federal 24-hour PM<sub>2.5</sub> air quality standard, and to provide an update to the SCAQMD's commitments towards meeting the federal 8-hour O<sub>3</sub> NAAQS. The AQMP incorporates the latest scientific and technological information and planning assumptions, including the *Regional Transportation Plan/Sustainable Communities Strategy* (RTP/SCS) and updated emission inventory methodologies for various source categories.

The SCAQMD has published the CEQA Air Quality Handbook (approved by the SCAQMD Governing Board in 1993 and augmented with guidance for Localized Significance Thresholds [LST] in 2008). The SCAQMD guidance helps local government agencies and consultants to develop environmental documents required by California Environmental Quality Act (CEQA) and provides identification of suggested thresholds of significance for criteria pollutants for both construction and operation (see discussion of thresholds below). With the help of the CEQA Air Quality Handbook and associated guidance, local land use planners and consultants are able to analyze and document how proposed and existing projects affect air quality in order to meet the requirements of the CEQA review process. The SCAQMD periodically provides supplemental guidance and updates to the handbook on their website.

SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties and serves as a forum for regional issues relating to transportation, the economy, community development, and the environment. Under federal law, SCAG is designated as a Metropolitan Planning Organization and under State law as a Regional Transportation Planning Agency and a Council of Governments.

The State and federal attainment status designations for the SCAB are summarized in **Table 4: South Coast Air Basin Attainment Status**. The SCAB is currently designated as a nonattainment area for  $O_3$ , PM<sub>10</sub>, and PM<sub>2.5</sub> CAAQS, as well as  $O_3$  and PM<sub>2.5</sub> NAAQS. The SCAB is designated as attainment or unclassified for the remaining CAAQS and NAAQS.

ole 4: South Coast Air Basin A	State	Federal
Ozone (O <sub>3</sub> ) (1 Hour Standard)	Non-Attainment	Non-Attainment (Extreme)
Ozone (O₃) (8 Hour Standard)	Non-Attainment	Non-Attainment (Extreme)
Particulate Matter (PM <sub>2.5</sub> ) (24 Hour Standard)	-	Non-Attainment (Serious)
Particulate Matter (PM <sub>2.5</sub> ) (Annual Standard)	Non-Attainment	Non-Attainment (Serious)
Particulate Matter (PM <sub>10</sub> ) (24 Hour Standard)	Non-Attainment	Attainment (Maintenance)
Particulate Matter (PM <sub>10</sub> ) (Annual Standard)	Non-Attainment	-
Carbon Monoxide (CO) (1 Hour Standard)	Attainment	Attainment (Maintenance)
Carbon Monoxide (CO) (8 Hour Standard)	Attainment	Attainment (Maintenance)
Nitrogen Dioxide (NO <sub>2</sub> ) (1 Hour Standard)	Attainment	Unclassifiable/Attainment
Nitrogen Dioxide (NO <sub>2</sub> ) (Annual Standard)	Attainment	Attainment (Maintenance)
Sulfur Dioxide (SO <sub>2</sub> ) (1 Hour Standard)	Attainment	Unclassifiable/Attainment
Sulfur Dioxide (SO <sub>2</sub> ) (24 Hour Standard)	Attainment	-
Lead (Pb) (30 Day Standard)	Attainment	Unclassifiable/Attainment
Lead (Pb) (3 Month Standard)	Attainment	-
Sulfates (SO <sub>4-2</sub> ) (24 Hour Standard)	Attainment	-
Hydrogen Sulfide (H₂S) (1 Hour Standard)	Unclassified	-

Source: South Coast Air Quality Management District, *Air Quality Management Plan*, 2022; United States Environmental Protection Agency, *Nonattainment Areas for Criteria Pollutants (Green Book)*, 2022.

The following is a list of SCAQMD rules that are required of construction activities associated with the Project:

- Rule 402 (Nuisance) This rule prohibits the 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. This rule does not apply to
  odors emanating from agricultural operations necessary for the growing of crops or the raising
  of fowl or animals.
- Rule 403 (Fugitive Dust) The purpose of this rule is to minimize the amount of particulate
  matter in the ambient air as a result of anthropogenic fugitive dust sources. This rule requires
  fugitive dust sources to implement best available control measures for all sources, and all forms
  of visible particulate matter are prohibited from crossing any property line. This rule is intended

to reduce  $PM_{10}$  emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust.  $PM_{10}$  suppression techniques are summarized below.

- a) Portions of a construction site to remain inactive longer than a period of three months will be seeded and watered until grass cover is grown or otherwise stabilized.
- b) All on-site roads will be paved as soon as feasible or watered periodically or chemically stabilized.
- c) All material transported off-site will be either sufficiently watered or securely covered to prevent excessive amounts of dust.
- d) The area disturbed by clearing, grading, earthmoving, or excavation operations will be minimized at all times.
- e) Where vehicles leave a construction site and enter adjacent public streets, the streets will be swept daily or washed down at the end of the work day to remove soil tracked onto the paved surface.
- Rule 1113 (Architectural Coatings) This rule requires manufacturers, distributors, and end
  users of architectural and industrial maintenance coatings to reduce ROG emissions from the
  use of these coatings, primarily by placing limits on the ROG content of various coating
  categories.

#### 3.4 Local

#### San Bernardino Countywide Plan (General Plan)

The County of San Bernardino addresses air quality in the Natural Resources Element of its General Plan. The Natural Resources Element contains goals and policies that work to promote health and wellness of residents in San Bernardino County through improvements in locally generated emissions. The following policies are applicable to the Proposed Project:

- **Policy NR-1.1 Land Use.** We promote compact and transit-oriented development countywide and regulate the types and locations of development in unincorporated areas to minimize vehicle miles traveled and greenhouse gas emissions.
- **Policy NR-1.2 Indoor air quality**. We promote the improvement of indoor air quality through the California Building and Energy Codes and through the provision of public health programs and services.
- **Policy NR-1.3** Coordination on air pollution. We collaborate with air quality management districts and other local agencies to monitor and reduce major pollutants affecting the county at the emission source.
- **Policy NR-1.6** Fugitive dust emissions. We coordinate with air quality management on requirement for dust control plans, revegetation, and soil compaction to prevent fugitive dust emissions.

**Policy NR-1.8** Construction and operations. We invest in county facilities and fleet vehicles to improve energy efficiency and reduce emissions. We encourage county contractors and other builders and developers to use low-emission construction vehicles and equipment to improve air quality and reduce emissions.

# **County of San Bernardino Development Code**

The San Bernardino County Development Code implements the goals and policies of the General Plan by regulating land uses within the unincorporated areas of the County. The development Code contains the following standards for air quality that would apply to the Project:

#### § 83.01.040 Air Quality.

- (c) Diesel Exhaust Emissions Control Measures. The following emissions control measures shall apply to all discretionary land use projects approved by the County on or after January 15, 2009:
- (1) On-Road Diesel Vehicles. On-road diesel vehicles are regulated by the State of California Air Resources Board.
  - (2) Off-Road Diesel Vehicle/Equipment Operations. All business establishments and contractors that use off-road diesel vehicle/equipment as part of their normal business operations shall adhere to the following measures during their operations in order to reduce diesel particulate matter emissions from diesel-fueled engines:
    - (A) Off-road vehicles/equipment shall not be left idling on site for periods in excess of five minutes. The idling limit does not apply to:
      - (I) Idling when queuing;
      - (II) Idling to verify that the vehicle is in safe operating condition;
      - (III) Idling for testing, servicing, repairing or diagnostic purposes;
      - (IV) Idling necessary to accomplish work for which the vehicle was designed (such as operating a crane);
      - (V) Idling required to bring the machine system to operating temperature; and
      - (VI) Idling necessary to ensure safe operation of the vehicle.
    - (B) Use reformulated ultra low-sulfur diesel fuel in equipment and use equipment certified by the U.S. Environmental Protection Agency (U.S. EPA) or that pre-dates U.S. EPA regulations.
    - **(C)** Maintain engines in good working order to reduce emissions.
    - (D) Signs shall be posted requiring vehicle drivers to turn off engines when parked.
    - (E) Any requirements or standards subsequently adopted by the South Coast Air Quality Management District, the Mojave Desert Air Quality Management District or the California Air Resources Board.
    - **(F)** Provide temporary traffic control during all phases of construction.

- **(G)** On-site electrical power connections shall be provided for electric construction tools to eliminate the need for diesel-powered electric generators, where feasible.
- **(H)** Maintain construction equipment engines in good working order to reduce emissions. The developer shall have each contractor certify that all construction equipment is properly serviced and maintained in good operating condition.
- (I) Contractors shall use ultra low sulfur diesel fuel for stationary construction equipment as required by Air Quality Management District (AQMD) Rules 431.1 and 431.2 to reduce the release of undesirable emissions.
- (J) Substitute electric and gasoline-powered equipment for diesel-powered equipment, where feasible.

# 4 SIGNIFICANCE CRITERIA AND METHODOLOGY

# 4.1 Air Quality Thresholds

Based upon the criteria derived from State CEQA Guidelines Appendix G, a Project normally would have a significant effect on the environment and would require mitigation if it would meet any of the following criteria:

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

# **SCAQMD Thresholds**

The significance criteria established by SCAQMD may be relied upon to make the above determinations. According to the SCAQMD, an air quality impact is considered significant if a project would violate any ambient air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations. The SCAQMD has established thresholds of significance for air quality during construction and operational activities of land use development projects, as shown in **Table 5: South Coast Air Quality Management District Emissions Thresholds**.

Table 5: South Coast Air Quality Management District Emissions Thresholds						
Criteria Air Pollutants and	Maximum Po	ounds Per Day				
Precursors	Construction-Related Operational-Related					
Reactive Organic Gases (ROG)	75	55				
Carbon Monoxide (CO)	550	550				
Nitrogen Oxides (NO <sub>x</sub> )	100	55				
Sulfur Oxides (SO <sub>x</sub> )	150	150				
Coarse Particulates (PM <sub>10</sub> )	150	150				
Fine Particulates (PM <sub>2.5</sub> )	M <sub>2.5</sub> ) 55 55					
Source: South Coast Air Quality Management District, South Coast AQMD Air Quality Significance Thresholds.						

#### **Localized Carbon Monoxide**

In addition to the daily thresholds listed above, the Project would also be subject to the CAAQS and NAAQS. These are addressed through an analysis of localized CO impacts. The significance of localized impacts depends on whether ambient CO levels near the Project site are above the CAAQS and NAAQS for CO standards (the more stringent CAAQS are 20 ppm for 1-hour and 9 ppm for 8-hour). The SCAB has been designated as attainment under the 1-hour and 8-hour CAAQS and NAAQS.

# **Localized Significance Thresholds**

In addition to the CO hotspot analysis, the SCAQMD developed LSTs for emissions of NO<sub>2</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub> generated at new development sites (off-site mobile source emissions are not included in the LST analysis). LSTs represent the maximum emissions that can be generated at a project without expecting to cause or substantially contribute to an exceedance of the most stringent CAAQS or NAAQS. LSTs are based on the ambient concentrations of that pollutant within the Project source receptor area (SRA), as demarcated by the SCAQMD, and the distance to the nearest sensitive receptor. LST analysis for construction is applicable for all projects that disturb 5 acres or less on a single day. The Project is within SCAQMD SRA 37. Table 6: Localized Significance Thresholds Construction/Operations, shows the LSTs for a 1-acre, 2-acre, and 5-acre project in SRA 37 with sensitive receptors located at approximately 25 meters. Table 6 shows that the LSTs increase as acreage increases. The nearest sensitive receptors are located approximately 1,200 feet (366 meters) east of the Project site.

Table 6: Localized Significance Thresholds for Construction/Operations							
Drainet Siza	Maximum Pounds Per Day						
Project Size	NO <sub>X</sub>	со	PM <sub>10</sub>	PM <sub>2.5</sub>			
1 Acre	118/118	667/667	4/1	3/1			
2 Acres	170/170	972/972	7/2	4/1			
5 Acres	270/270	1,746/1,746	14/4	8/2			

 $NO_X$  = Nitrogen Oxides; CO = Carbon Monoxide;  $PM_{10}$  = Particulate Matter 10 microns in diameter or less;  $PM_{2.5}$  = Particulate Matter 2.5 microns in diameter or less

Note: Based on a sensitive receptor distance of 25 meters in SRA 37.

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

It should be noted that LSTs are screening thresholds and are therefore conservative. The construction LST acreage is determined based the expected daily acreage disturbed. The operational LST acreage is based on the total area of the project site. Although the Project site is greater than five acres, the 5-acre operational LSTs are conservatively used to evaluate the Project.

# 4.2 Methodology

This air quality impact analysis considers the Project's construction and operational impacts. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod) version 2022.1.1.20. CalEEMod is a Statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. Air quality impacts were assessed according to methodologies recommended by CARB and the SCAQMD.

#### Construction

Project-related construction equipment, trucks, worker vehicles, and ground-disturbing activities would generate emissions of criteria air pollutants and precursors. Daily regional construction emissions are estimated by assuming construction occurs at the earliest feasible date (i.e., a conservative estimate of construction activities) and applying off-road, fugitive dust, and on-road emissions factors in CalEEMod.

Construction was modeled according to the following timeline:

- Demolition (tearing down of buildings/structures): June 2025 to August 2025
- Site Preparation (clearing vegetation and other natural materials): June 2025 to August 2025
- Grading (cut/fill of land): June 2025 to June 2027
- Paving (laying of concrete or asphalt): June 2025 to June 2027
- Building Construction (construction of buildings/structures): June 2025 to June 2027
- Architectural Coating (interior and exterior painting): June 2025 to June 2027

# **Operations**

Project operations would result in emissions of area sources (consumer products, architectural coating, and landscape equipment), energy sources (natural gas usage), mobile sources (motor vehicles from Project generated vehicle trips), and off-road equipment. Project-generated increases in operational emissions would be predominantly associated with motor vehicle use. Emissions from each of these categories are discussed below.

- Area Sources. Area source emissions would be generated due to consumer products, on-site
  equipment, architectural coating, and landscaping. Consumer products are various solvents
  used in non-industrial applications, which emit VOCs during product use. These typically include
  cleaning supplies, kitchen aerosols, cosmetics, and toiletries.
- Energy Sources. Energy source emissions would be generated due to electricity and natural gas
  usage associated with the Project. Primary uses of electricity and natural gas by the Project
  would be for miscellaneous commercial/retail equipment, space heating and cooling, water
  heating, ventilation, lighting, appliances, and electronics. Energy source emissions were
  calculated in CalEEMod. No changes were made to the default energy usage consumption rates
  or emissions factors.
- Mobile Sources. 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<sub>X</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> are all pollutants of regional concern. NO<sub>X</sub> and ROG react with sunlight to form O<sub>3</sub>, known as photochemical smog. Additionally, wind currents readily transport PM<sub>10</sub> and PM<sub>2.5</sub>. However, CO tends to be a localized pollutant, dispersing rapidly at the source.

Project-generated vehicle emissions are based on the trip generation within the *Scope for the Traffic Study* and *Vehicle Miles Traveled (VMT) Screening Assessment* prepared by Kimley Horn and Associates (June 2023) and incorporated into CalEEMod as recommended by the SCAQMD.

As discussed above, the SCAQMD provides significance thresholds for emissions associated with Proposed Project construction and operations. The Proposed Project's construction and operational emissions are compared to the daily criteria pollutant emissions significance thresholds in order to determine the significance of a Project's impact on regional air quality.

The localized effects from the Project's on-site emissions were evaluated in accordance with the SCAQMD's LST methodology, which uses on-site mass emissions rate look-up tables and Project-specific

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modeling. LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable NAAQS or CAAQS and are developed based on the ambient concentrations of that pollutant for each SRA and distance to the nearest sensitive receptor.

# 5 POTENTIAL IMPACTS AND MITIGATION

# 5.1 Air Quality Analysis

# Threshold 5.1 Would the Project conflict with or obstruct implementation of the applicable air quality plan?

As part of its enforcement responsibilities, the U.S. EPA requires each state with nonattainment areas to prepare and submit a SIP that demonstrates the means to attain the NAAQS. The SIP must integrate federal, State, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. Similarly, under State law, the CCAA requires an air quality attainment plan to be prepared for areas designated as nonattainment regarding the CAAQS and NAAQS. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

The Project is located within the SCAB, which is under the jurisdiction of the SCAQMD. The SCAQMD is required, pursuant to the FCAA, to reduce emissions of criteria pollutants for which the SCAB is in nonattainment. To reduce such emissions, the SCAQMD drafted the 2022 AQMP which establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving CAAQS and NAAQS. The 2022 AQMP is a regional and multi-agency effort including the SCAQMD, the CARB, the SCAG, and the U.S. EPA. The plan's pollutant control strategies are based on the latest scientific and technical information and planning assumptions, including SCAG's Connect SoCal 2024-2050 RTP/SCS, updated emission inventory methodologies for various source categories, and SCAG's latest growth forecasts. SCAG's latest growth forecasts were defined in consultation with local governments and with reference to local general plans. The Project is subject to the SCAQMD's AQMP.

Criteria for determining consistency with the AQMP are defined by the following indicators:

- Consistency Criterion No. 1: The Project will not result in an increase in the frequency or severity of existing air quality violations, or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.
- **Consistency Criterion No. 2**: The Project will not exceed the assumptions in the AQMP, or increments based on the years of the Project build-out phase.

According to the SCAQMD's *CEQA Air Quality Handbook*, the purpose of the consistency finding is to determine if a project is inconsistent with the assumptions and objectives of the regional air quality plans, and thus if it would interfere with the region's ability to comply with CAAQS and NAAQS.

The violations to which Consistency Criterion No. 1 refers are the CAAQS and NAAQS. As shown in **Table 7**, the Project would not exceed construction emission standards with the implementation of Mitigation Measure (**MM**) **AQ-1**. As shown in **Table 8** and **Table 11**, the Project would not exceed operational emission standards, or local significance thresholds. Therefore, the Project would not contribute to an existing air quality violation. Thus, the Project would be consistent with the first criterion.

Concerning Consistency Criterion No. 2, the AQMP contains air pollutant reduction strategies based on SCAG's latest growth forecasts, and SCAG's growth forecasts were defined in consultation with local governments and with reference to local general plans. The Project would not require a General Plan Amendment (GPA) or a Zone Change and the project would be consistent with the land uses planned for the site. As such, the Project would not result in substantial unplanned growth or unaccounted for growth in the Countywide Plan or job growth projections used by the SCAQMD to develop the AQMP. Thus, a less than significant impact would occur no impact would occur, as the Project is also consistent with the second criterion.

Mitigation Measures: Mitigation measures MM AQ-1 (refer to Impact Threshold 5.2, below).

**Level of Significance:** Less than significant with mitigation incorporated.

Threshold 5.2 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 state or federal ambient air quality standard?

#### **Construction Emissions**

Project construction activities would generate temporary emissions of criteria air pollutants. The criteria pollutants of primary concern within the Project area are  $O_3$ -precursor pollutants (i.e., ROG and  $NO_x$ ) and  $PM_{10}$  and  $PM_{2.5}$ . Construction-related emissions are of temporary duration, lasting only as long as construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the SCAQMD's thresholds of significance.

Construction results in the temporary generation of emissions resulting from site grading, road paving, motor vehicle exhaust associated with construction equipment and worker trips, and the movement of construction equipment, especially on unpaved surfaces. Emissions of airborne particulate matter are largely dependent on the amount of ground disturbance associated with site preparation activities as well as weather conditions and the appropriate application of water. Fugitive dust emissions 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 vicinity. Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working nearby.

The Project's construction emissions were calculated using the CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. See **Appendix A: Air Quality Modeling Data** for more information regarding the construction assumptions used in this analysis. Predicted maximum daily construction-generated emissions for the Project are summarized in in **Table 7: Construction-Related Emissions**.

Table 7: Construction-Related Emissions						
Construction Year	Maximum Pounds Per Day <sup>1</sup>					
Construction Year	ROG	NOx	со	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Unmitigated Emissions						
2025	16.2	141.0	137.0	0.40	44.6	21.0
2026	6.3	19.5	33.2	0.05	2.6	1.1
2027	6.2	18.8	32.5	0.05	2.5	1.1
SCAQMD Threshold	75	100	550	150	150	55
Exceed SCAQMD Threshold?	No	Yes	No	No	No	No
Mitigated Emissions <sup>2</sup>						
2025	7.3	55.9	137.0	0.40	40.7	17.5
2026	4.8	7.1	35.5	0.05	2.0	0.6
2027	4.8	7.0	34.9	0.05	2.0	0.6
SCAQMD Threshold	75	100	550	150	150	55
Exceed SCAQMD Threshold?	No	No	No	No	No	No

ROG = Reactive Organic Gases;  $NO_x$  = Nitrogen Oxides; CO = Carbon Monoxide;  $SO_2$  = Sulfur Dioxide;  $PM_{10}$  = Particulate Matter 10 microns in diameter or less;  $PM_{2.5}$  = Particulate Matter 2.5 microns in diameter or less

Source: CalEEMod version 2022.1.1.20 Refer to Appendix A for model outputs.

SCAQMD Rules 402 and 403 (prohibition of nuisances, watering of inactive and perimeter areas, track out requirements, etc.), are applicable to the Project and were applied in CalEEMod to minimize fugitive dust emissions. Rule 1113 provides specifications on painting practices and regulates the ROG content of paint. As required by law, all architectural coatings for the Project structures would comply with SCAQMD Rule 1113.

As shown in **Table 7**, unmitigated construction emissions would exceed the SCAQMD threshold for  $NO_X$  during the first year of construction. **MM AQ-1** requires all off-road equipment 50 horsepower or greater to meet CARB Tier 4 Final standards, reducing  $NO_X$  emissions below the SCAQMD construction standard. With the implementation of **MM AQ-1**, construction emissions would be below the SCAQMD's thresholds, and impacts would be less than significant.

#### **Operational Emissions**

Project operational emissions are those attributed to vehicle trips (mobile emissions), the use of natural gas and electricity (energy source emissions), and consumer products, architectural coatings, and landscape maintenance equipment (area source emissions). CalEEMod was used to calculate emissions based on the proposed land uses for the plan area and the number of trips generated.

**Table 8: Operational Emissions** illustrates the operational emissions from the Project. As shown in **Table 8**, Project emissions would not exceed SCAQMD thresholds for any criteria pollutants. As such, the Project would not violate any air quality standards or contribute substantially to an existing air quality violation. Therefore, regional operations would result in a less than significant long-term regional quality impact.

<sup>1.</sup> SCAQMD Rule 403 Fugitive Dust applied. The Rule 403 reduction/credits include the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; water all haul roads twice daily; and limit speeds on unpaved roads to 15 miles per hour.

<sup>2.</sup> MM AQ-1 requires off-road equipment 50 horsepower or greater to meet CARB Tier 4 Final standards during construction activities.

Table 8: Operational Emissions							
Source	Maximum Pounds Per Day						
	ROG	NO <sub>X</sub>	со	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	
Unmitigated Emissions	Unmitigated Emissions						
Area Source Emissions	6.56	0.08	9.11	<0.01	0.02	0.01	
Energy Emissions	0.14	2.52	2.12	0.02	0.19	0.19	
Mobile Emissions	0.55	1.03	10.00	0.03	2.58	0.67	
Total Emissions	7.25	3.63	21.23	0.05	2.79	0.87	
SCAQMD Threshold	55	55	550	150	150	55	
Exceeds Threshold?	No	No	No	No	No	No	

ROG = Reactive Organic Gases;  $NO_X$  = Nitrogen Oxides;  $NO_X$  = Carbon Monoxide;  $NO_X$  = Sulfur Dioxide;  $NO_X$  = Particulate Matter 10 microns in diameter or less;  $NO_X$  = Particulate Matter 2.5 microns in diameter or less

Source: CalEEMod version 2022.1.1.20. Refer to Appendix A for model outputs.

#### **Cumulative Construction Impacts**

The SCAB is designated nonattainment for O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> for the CAAQS and nonattainment for O<sub>3</sub> and PM<sub>2.5</sub> for the NAAQS. Appendix D of the SCAQMD White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution (2003) notes that projects that result in emissions that do not exceed the project specific SCAQMD regional thresholds of significance should result in a less than significant impact on a cumulative basis unless there is other pertinent information to the contrary. The mass-based regional significance thresholds published by the SCAQMD are designed to ensure compliance with both NAAQS and CAAQS and are based on an inventory of projected emissions in the SCAB. Therefore, if a project is estimated to result in emissions that do not exceed the thresholds, the project's contribution to the cumulative air quality impact in the SCAB would not be cumulatively considerable. As shown in **Table 7** above, construction-related emissions with the incorporation of construction mitigation measure **MM AQ-1** would not exceed the SCAQMD significance thresholds for criteria pollutants. Therefore, the Proposed Project would not generate a cumulatively considerable contribution to air pollutant emissions during construction.

The SCAQMD has developed strategies to reduce criteria pollutant emissions outlined in the AQMP pursuant to the FCAA mandates. The analysis assumed fugitive dust controls would be utilized during construction, including frequent water applications. SCAQMD rules, mandates, and compliance with adopted AQMP emissions control measures would also be imposed on construction projects throughout the SCAB, which would include related projects. Compliance with SCAQMD rules and regulations would further reduce Project construction-related emissions. Therefore, Project-related construction emissions, combined with those from other projects in the area, would not substantially deteriorate local air quality. The Project's construction-related emissions would not result in a cumulatively considerable contribution to significant cumulative air quality.

# **Cumulative Operational Impacts**

The SCAQMD has not established separate significance thresholds for cumulative operational emissions. The nature of air emissions is largely a cumulative impact. As a result, no single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, individual project emissions contribute to existing cumulatively significant adverse air quality impacts. The SCAQMD developed the operational thresholds of significance based on the level above which individual project emissions would result in a cumulatively considerable contribution to the SCAB's existing air quality

conditions. Therefore, a project that exceeds the SCAQMD operational thresholds would also be a cumulatively considerable contribution to a significant cumulative impact.

As shown in **Table 8** above, the Project's operational emissions would not exceed SCAQMD thresholds. As a result, operational emissions associated with the Project would not result in a cumulatively considerable contribution to significant cumulative air quality impacts. A less than significant impact would occur in this regard.

# Plans, Programs, and Policies

Existing requirements based on local, state, or federal regulations or laws are frequently required independently of CEQA review. Typical requirements include compliance with the provisions of the Building Code, CalGreen Code, local municipal code, SCAQMD Rules, etc. Because Plans, Programs, and Policies (PPP) are neither Project specific nor a result of development of the Project, they are not considered to be project design features or Mitigation Measures.

- PPP-1 Prior to the issuance of grading permits, the County Engineer shall confirm that the Grading Plan, Building Plans and Specifications require all construction contractors to comply with South Coast Air Quality Management District's (SCAQMD's) Rules 402 and 403 to minimize construction emissions of dust and particulates. The measures include, but are not limited to, the following:
  - Portions of a construction site to remain inactive longer than a period of three months will be seeded and watered until grass cover is grown or otherwise stabilized.
  - All on-site roads will be paved as soon as feasible or watered periodically or chemically stabilized.
  - All material transported off site will be either sufficiently watered or securely covered to prevent excessive amounts of dust.
  - The area disturbed by clearing, grading, earthmoving, or excavation operations will be minimized at all times.
  - Where vehicles leave a construction site and enter adjacent public streets, the streets will be swept daily or washed down at the end of the work day to remove soil tracked onto the paved surface.
- PPP-2 Pursuant to SCAQMD Rule 1113, the Project applicant shall require by contract specifications that the interior and exterior architectural coatings (paint and primer including parking lot paint) products used would have a volatile organic compound rating of 50 grams per liter or less.
- **PPP-3** Require diesel powered construction equipment to turn off when not in use per Title 13 of the California Code of Regulations, Section 2449.

# **Mitigation Measures:**

**MM AQ-1** Prior to issuance of grading permits, the applicant shall prepare and submit documentation to the County of San Bernardino that demonstrate the following:

• All off-road diesel-powered construction equipment greater than 50 horsepower meets California Air Resources Board Tier 4 Final off-road emissions standards. Requirements for Tier 4 Final equipment shall be included in applicable bid documents and successful contractor(s) must demonstrate the ability to supply such equipment. A copy of each unit's Best Available Control Technology (BACT) documentation (certified tier specification or model year specification), and CARB or SCAQMD operating permit (if applicable) shall be provided to the County at the time of mobilization of each applicable unit of equipment.

**Level of Significance:** Less than significant impact with mitigation incorporated. Construction emissions have been reduced to less than significant with the incorporation of **MM AQ-1**.

# Threshold 5.3 Would the Project expose sensitive receptors to substantial pollutant concentrations?

#### **Localized Construction Significance Analysis**

To identify impacts to sensitive receptors, the SCAQMD recommends addressing LSTs for construction. 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 impacts associated with Project-specific emissions.

Since CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily soil disturbance activity possible for each piece of equipment, **Table 9: Equipment-Specific Grading Rates** is used to determine the maximum daily disturbed acreage for comparison to LSTs. The appropriate SRA for the localized significance thresholds is the Central San Bernardino Mountains (SRA 37) since this area includes the Project. LSTs apply to NO<sub>2</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub>. The SCAQMD produced look-up tables for projects that disturb areas less than or equal to 5 acres in size. Project construction is anticipated to disturb a maximum of 4 acres in a single day during the grading phase. As the LST guidance provides thresholds for projects disturbing 1-, 2-, and 5-acres in size and the thresholds increase with size of the site, the LSTs for a 4-acre area were interpolated and utilized for this analysis.

Table 9: Equipment-Specific Grading Rates							
Construction Phase	Equipment Type	Equipment Quantity	Acres Graded per 8-Hour Day	Operating Hours per Day	Acres Graded per Day		
	Tractors	2	0.5	8	1		
Cuadina	Graders	1	0.5	8	0.5		
Grading	Dozers	1	0.5	8	0.5		
	Scrapers	2	1	8	2		
Maximum Acres Graded per Day 4							
Source: CalEEMod vers	ion 2022.1.1.20. Refer to Append	<u>lix A</u> for model output	S.				

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The SCAQMD's methodology states that "off-site mobile emissions from the Project should not be included in the emissions compared to LSTs." Therefore, only "on-site" emissions included in the CalEEMod outputs were considered. The nearest sensitive receptor to the Project is another campground, Camp Pondo, located approximately 1,200 feet (366 meters) to the east, on the opposite side of Green Valley Lake Road. LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. Therefore, LSTs for receptors located at 366 meters were interpolated and utilized in this analysis. **Table 10: Localized Significance of Construction Emissions**, presents the results of localized emissions during construction. **Table 10** shows that Project emissions of these pollutants on the peak day of construction would not exceed SCAQMD thresholds at the nearest sensitive receptor. Therefore, the Project would result in a less than significant impact concerning LSTs during construction.

Table 10: Localized Significance of Construction Emissions						
Construction Activity	Maximum Pounds Per Day					
	NO <sub>x</sub>	со	PM <sub>10</sub>	PM <sub>2.5</sub>		
Unmitigated Emissions						
Demolition	4.51	18.2	0.06	0.06		
Site Preparation	2.59	28.3	19.8	10.2		
Grading	4.43	35.3	9.51	3.8		
Building Construction	2.82	14.8	0.08	0.07		
Paving	7.45	9.98	0.35	0.32		
Architectural Coating	0.65	0.96	0	0		
Combined Emissions from Overlapping Phases	22.45	107.54	29.8	14.45		
SCAQMD Localized Screening Threshold (adjusted for 4 acres at 366 meters)	614	17,995	166	78		
Exceed SCAQMD Threshold?	No	No	No	No		

#### **Localized Operational Significance Analysis**

Source: CalEEMod version 2022.1.1.20 Refer to Appendix A for model outputs.

Interpolated LSTs for receptors located at 1,200 feet (366 meters) for SRA 37 were used in this analysis. The Project site is approximately 251 acres, the 5-acre threshold was conservatively used for evaluation of operational emissions. As noted above, the LSTs increase as site acreage increases. Therefore, the 5-acre LSTs are conservative for evaluation of a 251-acre site. The LST analysis only includes on-site sources. However, the CalEEMod model outputs do not separate on- and off-site emissions for mobile sources. For a worst-case scenario assessment, the emissions shown in **Table 11: Localized Significance of Operational Emissions** conservatively includes one hundred percent of the total mobile emissions.

Table 11: Localized Significance of Operational Emissions							
Activity	Maximum Pounds Per Day						
	NO <sub>x</sub>	со	PM <sub>10</sub>	PM <sub>2.5</sub>			
Onsite Operational Emissions	3.55	21.2	2.79	0.87			
SCAQMD Localized Screening Threshold (adjusted for 5-acre at 366 meters)	648	18,561	41	20			
Exceed SCAQMD Threshold?	No	No	No	No			

 $NO_X$  = Nitrogen Oxides; CO = Carbon Monoxide;  $PM_{10}$  = Particulate Matter 10 microns in diameter or less;  $PM_{2.5}$  = Particulate Matter 2.5 microns in diameter or less

Source: CalEEMod version 2022.1.1.20. Refer to Appendix A for model outputs.

Daily on-site operational emissions are compared to the LST thresholds in **Table 11**. **Table 11** shows that the maximum daily emissions of these pollutants during Project operations would not result in significant concentrations of pollutants at nearby sensitive receptors. Therefore, the Project would result in a less than significant impact concerning LSTs during operational activities.

#### **Criteria Pollutant Health Impacts**

On December 24, 2018, the California Supreme Court issued an opinion identifying the need to provide sufficient information connecting a project's air emissions to health impacts or explain why such information could not be ascertained (*Sierra Club v. County of Fresno* [Friant Ranch, L.P.] [2018] Cal.5<sup>th</sup>, Case No. S219783). The SCAQMD has set its CEQA significance thresholds based on the FCAA, which defines a major stationary source (in extreme O<sub>3</sub> nonattainment areas such as the SCAB) as emitting 10 tons per year. The thresholds correlate with the trigger levels for the federal New Source Review (NSR) Program and SCAQMD Rule 1303 for new or modified sources. The NSR Program<sup>3</sup> was created by the FCAA to ensure that stationary sources of air pollution are constructed or modified in a manner that is consistent with attainment of health-based NAAQS. The NAAQS establish the levels of air quality necessary, with an adequate margin of safety, to protect the public health. Therefore, projects that do not exceed the SCAQMD's LSTs and mass emissions thresholds would not violate any air quality standards or contribute substantially to an existing or projected air quality violation and no criteria pollutant health impacts would occur.

 $NO_X$  and ROG are precursor emissions that form  $O_3$  in the atmosphere in the presence of sunlight where the pollutants undergo complex chemical reactions. It takes time and the influence of meteorological conditions for these reactions to occur, so ozone may be formed at a distance downwind from the sources. Breathing ground-level  $O_3$  can result health effects that include reduced lung function, inflammation of airways, throat irritation, pain, burning, or discomfort in the chest when taking a deep breath, chest tightness, wheezing, or shortness of breath. In addition to these effects, evidence from observational studies strongly indicates that higher daily  $O_3$  concentrations are associated with increased asthma attacks, increased hospital admissions, increased daily mortality, and other markers of morbidity. The consistency and coherence of the evidence for effects upon asthmatics suggests that  $O_3$  can make asthma symptoms worse and can increase sensitivity to asthma triggers.

According to the SCAQMD's 2022 AQMP, O<sub>3</sub>, NO<sub>x</sub>, and ROG have been decreasing in the SCAB since 1975 and are projected to continue to decrease in the future. Although vehicle miles traveled in the SCAB continue to increase, NO<sub>x</sub> and ROG levels are decreasing because of the mandated controls on

Code of Federal Regulation (CFR) [i.e., PSD (40 CFR 52.21, 40 CFR 51.166, 40 CFR 51.165 (b)), Non-attainment NSR (40 CFR 52.24, 40 CFR 51.165, 40 CFR part 51, Appendix S)

motor vehicles and the replacement of older polluting vehicles with lower-emitting vehicles.  $NO_X$  emissions from electric utilities have also decreased due to the use of cleaner fuels and renewable energy. The 2022 AQMP demonstrates how the SCAQMD's control strategy to meet the 8-hour  $O_3$  standard in 2037. In addition, 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  $PM_{2.5}$  standards.

The SCAQMD's air quality modeling demonstrates that  $NO_X$  reductions prove to be much more effective in reducing  $O_3$  levels and will also lead to significant improvement in  $PM_{2.5}$  concentrations.  $NO_X$ -emitting stationary sources regulated by the SCAQMD include Regional Clean Air Incentives Market (RECLAIM) facilities (e.g., refineries, power plants, etc.), natural gas combustion equipment (e.g., boilers, heaters, engines, burners, flares) and other combustion sources that burn wood or propane. The 2016 AQMP identifies robust  $NO_X$  reductions from new regulations on RECLAIM facilities, non-refinery flares, commercial cooking, and residential and commercial appliances. Such combustion sources are already heavily regulated with the lowest  $NO_X$  emissions levels achievable but there are opportunities to require and accelerate replacement with cleaner zero-emission alternatives, such as residential and commercial furnaces, pool heaters, and backup power equipment. The AQMD plans to achieve such replacements through a combination of regulations and incentives. Technology-forcing regulations can drive development and commercialization of clean technologies, with future year requirements for new or existing equipment. Incentives can then accelerate deployment and enhance public acceptability of new technologies.

As previously discussed, localized effects of on-site Project emissions on nearby receptors for the Project would be less than significant (refer to <u>Table 10</u> and <u>Table 11</u>). The LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable state or federal ambient air quality standard. The LSTs were developed by the SCAQMD based on the ambient concentrations of that pollutant for each SRA and distance to the nearest sensitive receptor. The ambient air quality standards establish the levels of air quality necessary, with an adequate margin of safety, to protect public health, including protecting the health of sensitive populations. However, as discussed above, neither the SCAQMD nor any other air district currently have methodologies that would provide Lead Agencies and CEQA practitioners with a consistent, reliable, and meaningful analysis to correlate specific health impacts that may result from a proposed project's mass emissions. Information on health impacts related to exposure to O<sub>3</sub> and PM emissions published by the U.S. EPA and CARB have been summarized above and discussed in the Regulatory Setting section. Health studies are used by these agencies to set the NAAQS and CAAQS.

The NAAQS and CAAQS were developed to protect the most susceptible population groups from adverse health effects and were established in terms of parts per million or micrograms per cubic meter for the applicable emissions. As stated earlier, the mass emission thresholds were established primarily in conjunction with federal permitting "major source" thresholds. If emissions were below these "de minimis" emission rates, then the Proposed Project is presumed to conform with the NAAQS.<sup>4</sup> While based on the status of an air basin level of attainment of the health-based NAAQS, emissions in excess of the mass emission thresholds from one project does not mean the air basin would experience measurably higher ground level concentrations, or more frequent occurrences of ground level concentrations in exceedance of standards, or delay timely attainment of a particular NAAQS.

<sup>&</sup>lt;sup>4</sup> U.S. Environmental Protection Agency, Frequent Questions about General Conformity. Available: https://www.epa.gov/general-conformity/frequent-questions-about-general-conformity. Accessed July 2019.

Ozone concentrations are dependent upon a variety of complex factors, including the presence of sunlight and precursor pollutants, natural topography, nearby structures that cause building downwash, atmospheric stability, and wind patterns. Because of the complexities of predicting ground-level O<sub>3</sub> concentrations in relation to the NAAQS and CAAQS, none of the health-related information can be directly correlated to the pounds/day or tons/year of emissions estimated from a single, proposed project. It should also be noted that this analysis identifies health concerns related to PM, CO, O<sub>3</sub>, and NO<sub>2</sub>. **Table 1** includes a list of criteria pollutants and summarizes common sources and effects. Thus, this analysis is reasonable and intended to foster informed decision making.

#### **Diesel Particulate Matter**

Exhaust from diesel engines contains a mixture of gases and solid particles. These solid particles are known as diesel particulate matter (DPM). DPM contains hundreds of different chemicals, many of which are harmful to human health. During the grading phase of construction, diesel trucks hauling soil and other material will make approximately 447 one-way trips (refer to Appendix A, CalEEMod outputs), to and from the site each workday. Trips from the Project site, travel along Green Valley Lake Road to State Route 18 (SR-18). Based on CalEEMod estimates, diesel trucks transporting soil and materials to the site would generate approximately 0.39 pounds per day of PM<sub>10</sub> exhaust which is conservatively assumed to be entirely DPM emissions. Based on CalEnviroScreen 4.0 results, the Project is located in an area that falls within the 3<sup>rd</sup> percentile for California in DPM emissions, meaning the Project is within the lowest range reported 0-10. As such, the project's emissions would represent a low incremental contribution to the background DPM concentrations.

The amount to which the receptors are exposed (a function of concentration and duration of exposure) is the primary factor used to determine health risk (i.e., potential exposure to toxic air contaminant emission levels that exceed applicable standards). Health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer. The use of diesel-powered construction equipment would be episodic and would occur throughout the Project site.

Section 2485 and Section 2449 of Title 13 of the California Code of Regulations limits diesel-fueled motor vehicle idling to no more than five minutes. Section 2449 limits idling for off-road diesel-fueled fleets. Section 2485 limits idling for diesel-fueled commercial motor vehicles with gross vehicle weight ratings of greater than 10,000 pounds that are or must be licensed to operate on publicly maintained highways and streets within California. Project construction is subject to and would comply with California regulations limiting the idling of heavy-duty construction equipment to no more than five minutes which would further reduce nearby sensitive receptors' exposure to temporary and variable DPM emissions.

The duration of exposure would be short, and exhaust from construction equipment dissipates rapidly. Current models and methodologies for conducting health risk assessments are associated with longer-term exposure periods of 9, 30, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities.

As noted above, construction activities would limit idling to no more than five minutes, which would further reduce nearby sensitive receptors' exposure to temporary and variable DPM emissions. Furthermore, even during the most intense period of construction, emissions of DPM would be generated from different locations on the Project site rather than in a single location because different

types of construction activities (e.g., site preparation and building construction) would not occur at the same place at the same time.

Furthermore, SCAQMD's Multiple Air Toxics Exposure Study (MATES V) (August 2021) shows that carcinogenic risk from air toxics in the South Coast Air Basin, based on the average concentrations at the 10 monitoring sites, is approximately 40 percent lower than the monitored average in MATES IV (2015) and 84 percent lower than the average in MATES II (2000). The results of SCAQMD's ongoing research in air toxics shows that risk levels are decreasing despite development and vehicle traffic growth. This trend is expected to continue with the implementation of the various statewide policies focused on reducing mobile source emissions. Therefore, the temporary addition of 0.39 pounds per day of DPM during the construction grading phase would result in a less than significant impact.

# **Carbon Monoxide Hotspots**

An analysis of CO "hot spots" is needed to determine whether the change in the level of service of an intersection resulting from the Project would have the potential to result in exceedances of the CAAQS or NAAQS. It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when vehicles are idling at intersections. Vehicle emissions standards have become increasingly stringent in the last 20 years. Currently, the CO standard in California is a maximum of 3.4 grams per mile for passenger cars (requirements for certain vehicles are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations have steadily declined. Accordingly, with the steadily decreasing CO emissions from vehicles, even very busy intersections do not result in exceedances of the CO standard.

The SCAB was re-designated as attainment in 2007 and is no longer addressed in the SCAQMD's AQMP. The 2003 AQMP is the most recent version that addresses CO concentrations. As part of the SCAQMD CO Hotspot Analysis, the Wilshire Boulevard and Veteran Avenue intersection, one of the most congested intersections in southern California with an average daily traffic (ADT) volume of approximately 100,000 vehicles per day, was modeled for CO concentrations. This modeling effort identified a CO concentration high of 4.6 ppm, which is well below the 35-ppm Federal standard. The Project considered herein would not produce the volume of traffic required to generate a CO hot spot in the context of SCAQMD's CO Hotspot Analysis. As the CO hotspots were not experienced at the Wilshire Boulevard and Veteran Avenue intersection even as it accommodates 100,000 vehicles daily, it can be reasonably inferred that CO hotspots would not be experienced at any vicinity intersections resulting from a maximum of 225 additional vehicle trips on Sundays attributable to the Project. Therefore, impacts would be less than significant.

**Mitigation Measures:** No mitigation is required.

**Level of Significance:** Less than significant impact.

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<sup>&</sup>lt;sup>5</sup> South Coast Air Quality Management District (August 2021). *MATES V Final Report, page ES-16*. Available at http://www.aqmd.gov/docs/default-source/planning/mates-v/mates-v-final-report-9-24-21.pdf?sfvrsn=6. Accessed November 2023.

Air Quality Assessment

# Threshold 5.4 Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

#### Construction

Odors that could be generated by construction activities are required to follow SCAQMD Rule 402 to prevent odor nuisances on sensitive land uses. SCAQMD Rule 402, Nuisance, states:

A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

Construction equipment emissions, such as diesel exhaust, and volatile organic compounds from architectural coatings and paving activities, may generate odors. However, these odors would be temporary, are not expected to affect a substantial number of people and would disperse rapidly. Therefore, Project construction activities would not result in objectionable odors that would adversely affect a substantial number of people and impacts would be less than significant.

#### **Operations**

The SCAQMD CEQA Air Quality Handbook identifies certain land uses as sources of odors. These land uses include agriculture (farming and livestock), wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding. The Project would not include any of the land uses that have been identified by the SCAQMD as odor sources. Therefore, Project operations would not result in odors that would adversely affect people.

Mitigation Measures: No mitigation is required.

**Level of Significance:** Less than significant impact.

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# Appendix A

Air Quality Modeling Data

# Hume Campground Detailed Report

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- 5.7. Construction Paving
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- 5.9. Operational Mobile Sources
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- 5.11. Operational Energy Consumption
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  - 5.14.2. Mitigated
- 5.15. Operational Off-Road Equipment
  - 5.15.1. Unmitigated
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- 6. Climate Risk Detailed Report
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# 1. Basic Project Information

# 1.1. Basic Project Information

Data Field	Value
Project Name	Hume Campground
Construction Start Date	6/2/2025
Operational Year	2027
Lead Agency	_
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	11.2
Location	34.225431095364584, -117.09470743545103
County	San Bernardino-South Coast
City	Unincorporated
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5153
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.20

# 1.2. Land Use Types

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

Hotel	48.0	Room	3.14	136,966	0.00	0.00	159	Dorms
Health Club	9.38	1000sqft	0.22	9,375	0.00	0.00	_	Multipurpose Rec/Gym
Place of Worship	4.66	1000sqft	0.11	4,662	0.00	0.00	_	Chapels
General Office Building	21.9	1000sqft	0.50	21,940	0.00	0.00	_	Misc Buildings, restrooms
Other Non-Asphalt Surfaces	106	1000sqft	2.43	0.00	0.00	0.00	_	platforms for seasonal tents
Other Asphalt Surfaces	216	1000sqft	4.95	0.00	0.00	0.00	_	roads
High Turnover (Sit Down Restaurant)	35.3	1000sqft	0.81	35,264	0.00	0.00	_	Kitchen and Dining
Recreational Swimming Pool	0.61	1000sqft	0.01	606	0.00	0.00	_	Pools
Arena	1.15	1000sqft	0.37	1,152	0.00	0.00	_	Outdoor Amphitheater

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers

# 2. Emissions Summary

# 2.1. Construction Emissions Compared Against Thresholds

Un/Mit.	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	18.0	16.2	141	137	0.40	4.74	39.9	44.6	4.39	16.7	21.0	_	53,752	53,752	4.22	5.46	77.6	55,562

Mit.	6.95	7.25	55.9	143	0.40	0.80	39.9	40.7	0.80	16.7	17.5		53,752	53,752	4.22	5.46	77.6	55,562
% Reduced	61%	55%	60%	-4%	_	83%	_	9%	82%	_	17%	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_	_
Unmit.	3.12	6.35	20.6	31.7	0.05	0.82	1.84	2.66	0.76	0.44	1.20	_	6,632	6,632	0.32	0.25	0.24	6,715
Mit.	1.20	4.81	7.21	34.0	0.05	0.12	1.84	1.96	0.12	0.44	0.56	_	6,632	6,632	0.32	0.25	0.24	6,715
% Reduced	62%	24%	65%	-7%	_	85%	_	26%	84%	_	53%	_	_	_	_	-	_	_
Average Daily (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	3.48	4.44	26.5	28.7	0.07	0.95	6.49	7.44	0.87	2.72	3.60	_	8,957	8,957	0.63	0.74	5.27	9,198
Mit.	1.24	3.41	9.59	29.9	0.07	0.14	6.49	6.64	0.14	2.72	2.86	_	8,957	8,957	0.63	0.74	5.27	9,198
% Reduced	64%	23%	64%	-4%	_	85%	_	11%	84%	_	20%	-	_	_	_	_	_	_
Annual (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	0.64	0.81	4.84	5.25	0.01	0.17	1.19	1.36	0.16	0.50	0.66	_	1,483	1,483	0.10	0.12	0.87	1,523
Mit.	0.23	0.62	1.75	5.45	0.01	0.03	1.19	1.21	0.03	0.50	0.52	_	1,483	1,483	0.10	0.12	0.87	1,523
% Reduced	64%	23%	64%	-4%	_	85%	_	11%	84%	_	20%	_	_	_	_	_	_	_
Exceeds (Daily Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Threshol d	_	75.0	100	550	150	_	_	150	_	_	55.0	_	_	_	_	_	_	_
Unmit.	_	No	Yes	No	No	_	_	No	_	_	No	_	_	_	_	_	_	_
Mit.	_	No	No	No	No	_	_	No	_	_	No	_	_	_	_	_	_	_
Exceeds (Average Daily)	_	_	_	_	_	_	_		_	_		_	_	_	_	_	_	_

Threshol	_	75.0	100	550	150	_	_	150	_	_	55.0	_	_	_	-	_	_	_
Unmit.	_	No	No	No	No	_	_	No	_	_	No	_	_	_	_	_	_	_
Mit.	_	No	No	No	No	_	_	No	_	_	No	_	_	_	_	_	_	_

# 2.2. Construction Emissions by Year, Unmitigated

Year	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2025	18.0	16.2	141	137	0.40	4.74	39.9	44.6	4.39	16.7	21.0	_	53,752	53,752	4.22	5.46	77.6	55,562
2026	3.00	6.25	19.4	33.2	0.05	0.74	1.84	2.58	0.68	0.44	1.12	_	6,717	6,717	0.31	0.25	8.34	6,807
2027	2.88	6.15	18.7	32.5	0.05	0.67	1.84	2.51	0.62	0.44	1.06	_	6,665	6,665	0.26	0.24	7.48	6,751
Daily - Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2025	3.12	6.35	20.6	31.7	0.05	0.82	1.84	2.66	0.76	0.44	1.20	_	6,632	6,632	0.32	0.25	0.24	6,715
2026	2.97	6.21	19.5	31.1	0.05	0.74	1.84	2.58	0.68	0.44	1.12	_	6,582	6,582	0.26	0.25	0.22	6,664
2027	2.85	6.12	18.8	30.6	0.05	0.67	1.84	2.51	0.62	0.44	1.06	_	6,533	6,533	0.26	0.24	0.19	6,612
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2025	3.48	4.16	26.5	28.7	0.07	0.95	6.49	7.44	0.87	2.72	3.60	_	8,957	8,957	0.63	0.74	5.27	9,198
2026	2.12	4.44	14.0	22.4	0.03	0.53	1.30	1.83	0.49	0.31	0.80	_	4,716	4,716	0.19	0.18	2.57	4,777
2027	1.01	2.17	6.66	10.9	0.02	0.24	0.65	0.88	0.22	0.16	0.37	_	2,321	2,321	0.09	0.09	1.14	2,350
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2025	0.64	0.76	4.84	5.25	0.01	0.17	1.19	1.36	0.16	0.50	0.66	_	1,483	1,483	0.10	0.12	0.87	1,523
2026	0.39	0.81	2.55	4.10	0.01	0.10	0.24	0.33	0.09	0.06	0.15	_	781	781	0.03	0.03	0.43	791
2027	0.18	0.40	1.22	1.99	< 0.005	0.04	0.12	0.16	0.04	0.03	0.07	_	384	384	0.02	0.01	0.19	389

### 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	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2025	6.95	7.25	55.9	143	0.40	0.80	39.9	40.7	0.80	16.7	17.5	_	53,752	53,752	4.22	5.46	77.6	55,562
2026	1.20	4.81	6.99	35.5	0.05	0.12	1.84	1.96	0.12	0.44	0.56	_	6,717	6,717	0.31	0.25	8.34	6,807
2027	1.17	4.78	6.89	34.9	0.05	0.12	1.84	1.96	0.12	0.44	0.56	_	6,665	6,665	0.26	0.24	7.48	6,751
Daily - Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2025	1.20	4.81	7.21	34.0	0.05	0.12	1.84	1.96	0.12	0.44	0.56	_	6,632	6,632	0.32	0.25	0.24	6,715
2026	1.17	4.77	7.09	33.4	0.05	0.12	1.84	1.96	0.12	0.44	0.56	_	6,582	6,582	0.26	0.25	0.22	6,664
2027	1.14	4.75	6.99	32.9	0.05	0.12	1.84	1.96	0.12	0.44	0.56	_	6,533	6,533	0.26	0.24	0.19	6,612
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2025	1.24	2.35	9.59	29.9	0.07	0.14	6.49	6.64	0.14	2.72	2.86	_	8,957	8,957	0.63	0.74	5.27	9,198
2026	0.84	3.41	5.11	24.1	0.03	0.09	1.30	1.39	0.08	0.31	0.40	_	4,716	4,716	0.19	0.18	2.57	4,777
2027	0.40	1.68	2.49	11.8	0.02	0.04	0.65	0.69	0.04	0.16	0.20	_	2,321	2,321	0.09	0.09	1.14	2,350
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2025	0.23	0.43	1.75	5.45	0.01	0.03	1.19	1.21	0.03	0.50	0.52	_	1,483	1,483	0.10	0.12	0.87	1,523
2026	0.15	0.62	0.93	4.40	0.01	0.02	0.24	0.25	0.02	0.06	0.07	_	781	781	0.03	0.03	0.43	791
2027	0.07	0.31	0.46	2.15	< 0.005	0.01	0.12	0.13	0.01	0.03	0.04	_	384	384	0.02	0.01	0.19	389

### 2.4. Operations Emissions Compared Against Thresholds

Un/Mit.	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	2.56	7.24	3.55	21.2	0.04	0.23	2.57	2.79	0.22	0.65	0.87	329	9,817	10,146	33.7	0.25	279	11,340
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	0.91	5.72	3.55	10.0	0.04	0.21	2.57	2.78	0.21	0.65	0.86	329	9,594	9,923	33.7	0.25	270	11,109
Average Daily (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	2.02	6.74	3.62	16.6	0.04	0.22	2.55	2.77	0.22	0.65	0.86	329	9,648	9,977	33.7	0.25	273	11,168
Annual (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	0.37	1.23	0.66	3.04	0.01	0.04	0.47	0.51	0.04	0.12	0.16	54.5	1,597	1,652	5.58	0.04	45.3	1,849
Exceeds (Daily Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Threshol d	_	55.0	55.0	550	150	_	_	150	_	_	55.0	_	_	_	_	_	_	_
Unmit.	_	No	No	No	No	_	_	No	_	_	No	_	_	_	_	_	_	_
Exceeds (Average Daily)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Threshol d	_	55.0	55.0	550	150	_	_	150	_	_	55.0	_	_	_	_	_	_	_
Unmit.	_	No	No	No	No	_	_	No	_	_	No	_	_	_	_	_	_	_

# 2.5. Operations Emissions by Sector, Unmitigated

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

Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.66	0.55	0.96	10.0	0.03	0.02	2.57	2.58	0.02	0.65	0.67	_	2,918	2,918	0.10	0.12	9.19	2,964
Area	1.62	6.56	0.08	9.11	< 0.005	0.02	_	0.02	0.01	_	0.01	_	37.4	37.4	< 0.005	< 0.005	_	37.6
Energy	0.28	0.14	2.52	2.12	0.02	0.19	_	0.19	0.19	_	0.19	_	6,751	6,751	0.62	0.05	_	6,781
Water	_	_	_	_	_	_	_	_	_	_	_	32.7	110	143	3.36	0.08	_	251
Waste	_	_	_	_	_	_	_	_	_	_	<u> </u>	296	0.00	296	29.6	0.00	_	1,037
Refrig.	_	_	_	_	_	_	_	_	_	_	<u> </u>	_	_	_	_	_	269	269
Total	2.56	7.24	3.55	21.2	0.04	0.23	2.57	2.79	0.22	0.65	0.87	329	9,817	10,146	33.7	0.25	279	11,340
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.63	0.52	1.03	7.93	0.03	0.02	2.57	2.58	0.02	0.65	0.67	_	2,733	2,733	0.10	0.12	0.24	2,771
Area	_	5.06	_	_	_	_	_	_	_	_	<u> </u>	_	_	_	-	_	_	_
Energy	0.28	0.14	2.52	2.12	0.02	0.19	_	0.19	0.19	_	0.19	_	6,751	6,751	0.62	0.05	_	6,781
Water	_	_	_	_	_	_	_	_	_	_	_	32.7	110	143	3.36	0.08	_	251
Waste	_	_	_	_	_	_	_	_	_	_	<u> </u>	296	0.00	296	29.6	0.00	_	1,037
Refrig.	_	_	_	_	_	_	_	_	_	_	<u> </u>	_	_	_	_	_	269	269
Total	0.91	5.72	3.55	10.0	0.04	0.21	2.57	2.78	0.21	0.65	0.86	329	9,594	9,923	33.7	0.25	270	11,109
Average Daily	_		_		_		_	_	_	_	_		_	_	_	_	_	_
Mobile	0.63	0.52	1.05	8.28	0.03	0.02	2.55	2.57	0.02	0.65	0.66	_	2,762	2,762	0.10	0.12	3.97	2,804
Area	1.11	6.09	0.05	6.24	< 0.005	0.01	_	0.01	0.01	_	0.01	_	25.6	25.6	< 0.005	< 0.005	_	25.7
Energy	0.28	0.14	2.52	2.12	0.02	0.19	_	0.19	0.19	_	0.19	_	6,751	6,751	0.62	0.05	_	6,781
Water	_	_	_	_	_	_	_	_	_	_	_	32.7	110	143	3.36	0.08	_	251
Waste	_	_	_	_	_	_	_	_	_	_	-	296	0.00	296	29.6	0.00	_	1,037
Refrig.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	269	269
Total	2.02	6.74	3.62	16.6	0.04	0.22	2.55	2.77	0.22	0.65	0.86	329	9,648	9,977	33.7	0.25	273	11,168

Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.12	0.09	0.19	1.51	< 0.005	< 0.005	0.47	0.47	< 0.005	0.12	0.12	_	457	457	0.02	0.02	0.66	464
Area	0.20	1.11	0.01	1.14	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	4.25	4.25	< 0.005	< 0.005	_	4.26
Energy	0.05	0.03	0.46	0.39	< 0.005	0.03	_	0.03	0.03	_	0.03	_	1,118	1,118	0.10	0.01	_	1,123
Water	_	_	_	_	_	_	_	_	_	_	_	5.41	18.2	23.6	0.56	0.01	_	41.5
Waste	_	_	_	_	_	_	_	_	_	_	_	49.1	0.00	49.1	4.90	0.00	_	172
Refrig.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	44.6	44.6
Total	0.37	1.23	0.66	3.04	0.01	0.04	0.47	0.51	0.04	0.12	0.16	54.5	1,597	1,652	5.58	0.04	45.3	1,849

# 2.6. Operations Emissions by Sector, Mitigated

Sector	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	-	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_	_	_
Mobile	0.66	0.55	0.96	10.0	0.03	0.02	2.57	2.58	0.02	0.65	0.67	_	2,918	2,918	0.10	0.12	9.19	2,964
Area	1.62	6.56	0.08	9.11	< 0.005	0.02	_	0.02	0.01	_	0.01	_	37.4	37.4	< 0.005	< 0.005	_	37.6
Energy	0.28	0.14	2.52	2.12	0.02	0.19	_	0.19	0.19	_	0.19	_	6,751	6,751	0.62	0.05	_	6,781
Water	_	_	_	_	_	_	_	_	_	_	_	32.7	110	143	3.36	0.08	_	251
Waste	_	_	_	_	_	_	_	_	_	_	_	296	0.00	296	29.6	0.00	_	1,037
Refrig.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	269	269
Total	2.56	7.24	3.55	21.2	0.04	0.23	2.57	2.79	0.22	0.65	0.87	329	9,817	10,146	33.7	0.25	279	11,340
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.63	0.52	1.03	7.93	0.03	0.02	2.57	2.58	0.02	0.65	0.67	_	2,733	2,733	0.10	0.12	0.24	2,771
Area	_	5.06	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Energy	0.28	0.14	2.52	2.12	0.02	0.19	_	0.19	0.19	_	0.19	_	6,751	6,751	0.62	0.05	_	6,781
Water	_	_	_	_	_	_	_	_	_	_	_	32.7	110	143	3.36	0.08	_	251

Waste	_	_	_	-	_	_	_	_	_	_	_	296	0.00	296	29.6	0.00	_	1,037
Refrig.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	269	269
Total	0.91	5.72	3.55	10.0	0.04	0.21	2.57	2.78	0.21	0.65	0.86	329	9,594	9,923	33.7	0.25	270	11,109
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.63	0.52	1.05	8.28	0.03	0.02	2.55	2.57	0.02	0.65	0.66	_	2,762	2,762	0.10	0.12	3.97	2,804
Area	1.11	6.09	0.05	6.24	< 0.005	0.01	_	0.01	0.01	_	0.01	_	25.6	25.6	< 0.005	< 0.005	_	25.7
Energy	0.28	0.14	2.52	2.12	0.02	0.19	_	0.19	0.19	_	0.19	_	6,751	6,751	0.62	0.05	_	6,781
Water	_	_	_	_	_	_	_	_	_	_	_	32.7	110	143	3.36	0.08	_	251
Waste	_	_	_	_	_	_	_	_	_	_	_	296	0.00	296	29.6	0.00	_	1,037
Refrig.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	269	269
Total	2.02	6.74	3.62	16.6	0.04	0.22	2.55	2.77	0.22	0.65	0.86	329	9,648	9,977	33.7	0.25	273	11,168
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.12	0.09	0.19	1.51	< 0.005	< 0.005	0.47	0.47	< 0.005	0.12	0.12	_	457	457	0.02	0.02	0.66	464
Area	0.20	1.11	0.01	1.14	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	4.25	4.25	< 0.005	< 0.005	_	4.26
Energy	0.05	0.03	0.46	0.39	< 0.005	0.03	_	0.03	0.03	_	0.03	_	1,118	1,118	0.10	0.01	_	1,123
Water	_	_	_	_	_	_	_	_	_	_	_	5.41	18.2	23.6	0.56	0.01	_	41.5
Waste	_	_	_	_	_	_	_	_	_	_	_	49.1	0.00	49.1	4.90	0.00	_	172
Refrig.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	44.6	44.6
Total	0.37	1.23	0.66	3.04	0.01	0.04	0.47	0.51	0.04	0.12	0.16	54.5	1,597	1,652	5.58	0.04	45.3	1,849

# 3. Construction Emissions Details

# 3.1. Demolition (2025) - Unmitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

																_		
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		2.40	22.2	19.9	0.03	0.92	_	0.92	0.84	_	0.84	_	3,425	3,425	0.14	0.03	_	3,437
Demolitio n	_	-	-	-	_	_	0.00	0.00	_	0.00	0.00	_	_	_	-	-	_	_
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
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-	_
Off-Road Equipmen		0.43	3.95	3.55	0.01	0.16	-	0.16	0.15	_	0.15	_	610	610	0.02	< 0.005	_	612
Demolitio n	_	_	_	-	_	_	0.00	0.00	_	0.00	0.00	-	_	_	_	_	-	_
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
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.08	0.72	0.65	< 0.005	0.03	_	0.03	0.03	_	0.03	_	101	101	< 0.005	< 0.005	_	101
Demolitio n	_	_	_	_	_	_	0.00	0.00	_	0.00	0.00	_	_	_	_	_	_	_
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
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.08	0.07	0.07	1.17	0.00	0.00	0.20	0.20	0.00	0.05	0.05	_	211	211	0.01	0.01	0.78	215
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
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_		_		_		_	_	_	_	_	_		_	_
Worker	0.01	0.01	0.01	0.17	0.00	0.00	0.03	0.03	0.00	0.01	0.01	_	35.0	35.0	< 0.005	< 0.005	0.06	35.5
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	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	_	5.79	5.79	< 0.005	< 0.005	0.01	5.88
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

# 3.2. Demolition (2025) - Mitigated

Location	TOG	ROG		со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.36	4.51	18.2	0.03	0.06	_	0.06	0.06	_	0.06	_	3,425	3,425	0.14	0.03	_	3,437
Demolitio n	_	_	_	_	_	_	0.00	0.00	_	0.00	0.00	_	_	_	_	_	_	_
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
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Average Daily	_	_	_	_	_	_	_	_	_		_	_	_	_	_	_	_	_
Off-Road Equipmen		0.06	0.80	3.24	0.01	0.01	-	0.01	0.01	_	0.01	_	610	610	0.02	< 0.005	_	612
Demolitio n	_	_	_	-	_	_	0.00	0.00	_	0.00	0.00	_	_	_	_	_	_	_
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
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.01	0.15	0.59	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	101	101	< 0.005	< 0.005	_	101
Demolitio n	_	_	_	-	_	_	0.00	0.00	_	0.00	0.00	_	_	_	_	_	_	-
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
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	-	_	-	-	-	_	_	_	_	_	_	_
Worker	0.08	0.07	0.07	1.17	0.00	0.00	0.20	0.20	0.00	0.05	0.05	_	211	211	0.01	0.01	0.78	215
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
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-
Worker	0.01	0.01	0.01	0.17	0.00	0.00	0.03	0.03	0.00	0.01	0.01	_	35.0	35.0	< 0.005	< 0.005	0.06	35.5
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	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	_	5.79	5.79	< 0.005	< 0.005	0.01	5.88

١	/endor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
ŀ	lauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

# 3.3. Site Preparation (2025) - Unmitigated

	TOG	ROG	NOx	СО	SO2	nual) and PM10E	PM10D	PM10T					NDCCO	СООТ	CUA	Noo	Б.	000
Location	IOG	ROG	NOX	CO	802	PM10E	PM10D	PM101	PIM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		3.31	31.6	30.2	0.05	1.37	_	1.37	1.26	_	1.26	_	5,295	5,295	0.21	0.04	_	5,314
Dust From Material Movemen:	_	_	_		_	_	19.7	19.7		10.1	10.1	_	_	_	_	_	_	_
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)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.59	5.63	5.37	0.01	0.24	_	0.24	0.22	_	0.22	_	943	943	0.04	0.01	_	946
Dust From Material Movemen:	_	_	_	_	_	_	3.50	3.50	_	1.80	1.80	_	_	_	_	_	_	_
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 Equipmen		0.11	1.03	0.98	< 0.005	0.04	_	0.04	0.04	_	0.04	_	156	156	0.01	< 0.005	_	157
Dust From Material Movemen	<u> </u>	_	_	_	_	_	0.64	0.64	_	0.33	0.33	_	_	_	_	_	_	_
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	0.09	0.08	0.08	1.36	0.00	0.00	0.23	0.23	0.00	0.05	0.05	_	247	247	0.01	0.01	0.91	250
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
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_	_
Worker	0.01	0.01	0.02	0.19	0.00	0.00	0.04	0.04	0.00	0.01	0.01	_	40.8	40.8	< 0.005	< 0.005	0.07	41.4
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	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	_	6.76	6.76	< 0.005	< 0.005	0.01	6.86
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

# 3.4. Site Preparation (2025) - Mitigated

		_ `															
the state of the s	1-00		1			1-11-5	 					1		10	1	1 _	
Location	1106	TROG	INOV	TCO .	1802		IPMINI	エロハク ちト	101/12/511	1 DM2 51	TRCO2	INBCO2	10021	ICHA	TNI2O	I R	CO2e
Location	IIOG	INOG	INOX	100	1002	II IVI I OL	I I IVI I O I	I IVIZ.JL		I   IVIZ.J		INDOOZ	10021	1 O 1 1 <del>1</del>	INZU	111	10026

Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_		_	_	_	_		_	_	_
Off-Road Equipmen		0.50	2.59	28.3	0.05	0.10	_	0.10	0.10	_	0.10	_	5,295	5,295	0.21	0.04	_	5,314
Dust From Material Movemen:	_	_	_	-	-	_	19.7	19.7	_	10.1	10.1	_	_	_	-	_	_	_
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)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_
Off-Road Equipmen		0.09	0.46	5.04	0.01	0.02	_	0.02	0.02	_	0.02	_	943	943	0.04	0.01	_	946
Dust From Material Movement	_	_	_	-	_	_	3.50	3.50	_	1.80	1.80	_	_	_	-	_	_	_
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 Equipmen		0.02	0.08	0.92	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	-	156	156	0.01	< 0.005	-	157
Dust From Material Movemen:	_	_	_	-	_	_	0.64	0.64	_	0.33	0.33	_	_	_	_	_	_	_
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	0.09	0.08	0.08	1.36	0.00	0.00	0.23	0.23	0.00	0.05	0.05	_	247	247	0.01	0.01	0.91	250
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
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.01	0.01	0.02	0.19	0.00	0.00	0.04	0.04	0.00	0.01	0.01	_	40.8	40.8	< 0.005	< 0.005	0.07	41.4
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	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	_	6.76	6.76	< 0.005	< 0.005	0.01	6.86
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

# 3.5. Grading (2025) - Unmitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	<u> </u>	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		3.20	29.7	28.3	0.06	1.23	_	1.23	1.14	_	1.14	_	6,599	6,599	0.27	0.05	_	6,622

Dust From Material Movemen:	<u> </u>	_	_	_	_	_	9.39	9.39	_	3.68	3.68	_	_	_	_	_	_	_
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)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	<u> </u>	-	-	_	_	_	_	_	_	_	_	-	_	_	_	_
Off-Road Equipmen		0.39	3.58	3.41	0.01	0.15	_	0.15	0.14	_	0.14	_	795	795	0.03	0.01	_	798
Dust From Material Movemen:	_	_	_	-	_	_	1.13	1.13	_	0.44	0.44	_	_	_	-	-	_	-
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 Equipmen		0.07	0.65	0.62	< 0.005	0.03	_	0.03	0.02	_	0.02	_	132	132	0.01	< 0.005	_	132
Dust From Material Movement		_	_		_	_	0.21	0.21	_	0.08	0.08	_	_	_			_	_
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	0.10	0.09	0.09	1.56	0.00	0.00	0.26	0.26	0.00	0.06	0.06	_	282	282	0.01	0.01	1.05	286
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	3.94	0.66	37.1	20.8	0.21	0.39	8.29	8.69	0.39	2.27	2.66	_	30,923	30,923	3.25	5.06	65.7	32,577

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Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.01	0.01	0.01	0.15	0.00	0.00	0.03	0.03	0.00	0.01	0.01	_	31.6	31.6	< 0.005	< 0.005	0.05	32.0
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	0.47	0.08	4.72	2.52	0.02	0.05	0.99	1.04	0.05	0.27	0.32	_	3,728	3,728	0.39	0.61	3.43	3,924
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	_	5.23	5.23	< 0.005	< 0.005	0.01	5.30
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	0.09	0.01	0.86	0.46	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	_	617	617	0.06	0.10	0.57	650

# 3.6. Grading (2025) - Mitigated

Location		ROG	NOx	СО		PM10E		PM10T	PM2.5E			BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.64	4.43	35.3	0.06	0.12	_	0.12	0.12	_	0.12	_	6,599	6,599	0.27	0.05	_	6,622
Dust From Material Movemen	<del></del>	_	_	_	_	_	9.39	9.39	_	3.68	3.68	_	_	_	_	_	_	_
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)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.08	0.53	4.26	0.01	0.01	_	0.01	0.01	_	0.01	_	795	795	0.03	0.01	_	798
Dust From Material Movement	<u>—</u>	_	_	_	_	_	1.13	1.13	_	0.44	0.44	_	_	_	_	_	_	_
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 Equipmen		0.01	0.10	0.78	< 0.005	< 0.005	-	< 0.005	< 0.005	_	< 0.005	_	132	132	0.01	< 0.005	_	132
Dust From Material Movement	_	-	-	-	_	_	0.21	0.21	-	0.08	0.08	_	_	_	_	_	_	_
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	0.10	0.09	0.09	1.56	0.00	0.00	0.26	0.26	0.00	0.06	0.06	_	282	282	0.01	0.01	1.05	286
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	3.94	0.66	37.1	20.8	0.21	0.39	8.29	8.69	0.39	2.27	2.66	_	30,923	30,923	3.25	5.06	65.7	32,577
Daily, Winter (Max)	_	-	-	-	_	_	_	_	_	_	_	_	_	-	_	_	_	_
Average Daily		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.01	0.01	0.01	0.15	0.00	0.00	0.03	0.03	0.00	0.01	0.01	_	31.6	31.6	< 0.005	< 0.005	0.05	32.0
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	0.47	0.08	4.72	2.52	0.02	0.05	0.99	1.04	0.05	0.27	0.32	_	3,728	3,728	0.39	0.61	3.43	3,924
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	_	5.23	5.23	< 0.005	< 0.005	0.01	5.30
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	0.09	0.01	0.86	0.46	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	_	617	617	0.06	0.10	0.57	650

# 3.7. Building Construction (2025) - Unmitigated

	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T			PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	-	_	-	_	_	_	_
Off-Road Equipmen		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 Equipmen		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 Equipmen		0.47	4.35	5.44	0.01	0.18	_	0.18	0.17	_	0.17	_	999	999	0.04	0.01	_	1,003
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 Equipmer		0.09	0.79	0.99	< 0.005	0.03	_	0.03	0.03	_	0.03	_	165	165	0.01	< 0.005	_	166
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	0.44	0.39	0.38	6.70	0.00	0.00	1.12	1.12	0.00	0.26	0.26	_	1,212	1,212	0.05	0.04	4.49	1,230
Vendor	0.11	0.03	1.18	0.64	0.01	0.02	0.29	0.31	0.02	0.08	0.10	_	1,062	1,062	0.08	0.16	2.99	1,115
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	0.41	0.37	0.42	5.05	0.00	0.00	1.12	1.12	0.00	0.26	0.26	_	1,111	1,111	0.05	0.04	0.12	1,125
Vendor	0.10	0.03	1.23	0.64	0.01	0.02	0.29	0.31	0.02	0.08	0.10	_	1,062	1,062	0.08	0.16	0.08	1,112
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	0.17	0.15	0.19	2.22	0.00	0.00	0.47	0.47	0.00	0.11	0.11	_	470	470	0.02	0.02	0.81	476
Vendor	0.04	0.01	0.52	0.26	< 0.005	0.01	0.12	0.13	0.01	0.03	0.04	_	443	443	0.03	0.07	0.54	464
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	0.03	0.03	0.03	0.41	0.00	0.00	0.08	0.08	0.00	0.02	0.02	_	77.7	77.7	< 0.005	< 0.005	0.13	78.8
Vendor	0.01	< 0.005	0.09	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	_	73.3	73.3	0.01	0.01	0.09	76.8
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

Onsite	_	_	_	-	-	_	_	_	_	_	_	_	_	_	_	_	_	-
Daily, Summer (Max)	_	_	_	-	_	_	_	_	_	_	_	-	_	_	_		_	_
Off-Road Equipmen		0.33	2.82	14.8	0.02	0.08	_	0.08	0.07	_	0.07	_	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 Equipmen		0.33	2.82	14.8	0.02	0.08	_	0.08	0.07	_	0.07	_	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 Equipmen		0.14	1.18	6.18	0.01	0.03	_	0.03	0.03	_	0.03	_	999	999	0.04	0.01	_	1,003
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	_	_	_	<u> </u>	_	_	_	<u> </u>	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.03	0.21	1.13	< 0.005	0.01	_	0.01	0.01	_	0.01	_	165	165	0.01	< 0.005	_	166
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	0.44	0.39	0.38	6.70	0.00	0.00	1.12	1.12	0.00	0.26	0.26	_	1,212	1,212	0.05	0.04	4.49	1,230
Vendor	0.11	0.03	1.18	0.64	0.01	0.02	0.29	0.31	0.02	0.08	0.10	_	1,062	1,062	0.08	0.16	2.99	1,115
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	0.41	0.37	0.42	5.05	0.00	0.00	1.12	1.12	0.00	0.26	0.26	_	1,111	1,111	0.05	0.04	0.12	1,125
Vendor	0.10	0.03	1.23	0.64	0.01	0.02	0.29	0.31	0.02	0.08	0.10	_	1,062	1,062	0.08	0.16	0.08	1,112
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	0.17	0.15	0.19	2.22	0.00	0.00	0.47	0.47	0.00	0.11	0.11	_	470	470	0.02	0.02	0.81	476
Vendor	0.04	0.01	0.52	0.26	< 0.005	0.01	0.12	0.13	0.01	0.03	0.04	_	443	443	0.03	0.07	0.54	464
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	0.03	0.03	0.03	0.41	0.00	0.00	0.08	0.08	0.00	0.02	0.02	_	77.7	77.7	< 0.005	< 0.005	0.13	78.8
Vendor	0.01	< 0.005	0.09	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	_	73.3	73.3	0.01	0.01	0.09	76.8
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. Building Construction (2026) - Unmitigated

	terral conditions (no, day for daily, territy) for annually and or food (no daily, in fig. ).																	
Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		1.07	9.85	13.0	0.02	0.38	_	0.38	0.35	_	0.35	_	2,397	2,397	0.10	0.02	_	2,405
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 Equipmen		1.07	9.85	13.0	0.02	0.38	_	0.38	0.35	_	0.35	_	2,397	2,397	0.10	0.02	_	2,405
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 Equipmen		0.77	7.04	9.26	0.02	0.27	_	0.27	0.25	_	0.25	_	1,712	1,712	0.07	0.01	_	1,718
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 Equipmen		0.14	1.28	1.69	< 0.005	0.05	_	0.05	0.05	_	0.05	_	283	283	0.01	< 0.005	_	284
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	0.41	0.37	0.34	6.19	0.00	0.00	1.12	1.12	0.00	0.26	0.26	_	1,187	1,187	0.05	0.04	4.06	1,204
Vendor	0.10	0.02	1.13	0.61	0.01	0.02	0.29	0.31	0.02	0.08	0.10	_	1,044	1,044	0.07	0.16	2.76	1,096
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	0.39	0.35	0.38	4.68	0.00	0.00	1.12	1.12	0.00	0.26	0.26	_	1,088	1,088	0.02	0.04	0.11	1,102
Vendor	0.10	0.02	1.17	0.62	0.01	0.02	0.29	0.31	0.02	0.08	0.10	_	1,044	1,044	0.07	0.16	0.07	1,094
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	0.28	0.25	0.30	3.51	0.00	0.00	0.80	0.80	0.00	0.19	0.19	_	788	788	0.01	0.03	1.25	799
Vendor	0.07	0.01	0.84	0.44	0.01	0.01	0.21	0.22	0.01	0.06	0.07	_	746	746	0.05	0.11	0.85	782

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	0.05	0.05	0.05	0.64	0.00	0.00	0.15	0.15	0.00	0.03	0.03	_	131	131	< 0.005	0.01	0.21	132
Vendor	0.01	< 0.005	0.15	0.08	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	_	123	123	0.01	0.02	0.14	130
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. Building Construction (2026) - Mitigated

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Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.33	2.82	14.8	0.02	0.07	_	0.07	0.07	_	0.07	_	2,397	2,397	0.10	0.02	_	2,405
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 Equipmen		0.33	2.82	14.8	0.02	0.07	_	0.07	0.07	_	0.07	_	2,397	2,397	0.10	0.02	_	2,405
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 Equipmen		0.23	2.01	10.6	0.02	0.05	_	0.05	0.05	_	0.05	_	1,712	1,712	0.07	0.01	_	1,718
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 Equipmen		0.04	0.37	1.93	< 0.005	0.01	_	0.01	0.01	_	0.01	_	283	283	0.01	< 0.005	_	284
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	_	_	_	_	_	_	_	<u> </u>	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_		_	_	-	_	_	-		_	_	_	_	_	_
Worker	0.41	0.37	0.34	6.19	0.00	0.00	1.12	1.12	0.00	0.26	0.26	_	1,187	1,187	0.05	0.04	4.06	1,204
Vendor	0.10	0.02	1.13	0.61	0.01	0.02	0.29	0.31	0.02	0.08	0.10	_	1,044	1,044	0.07	0.16	2.76	1,096
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	0.39	0.35	0.38	4.68	0.00	0.00	1.12	1.12	0.00	0.26	0.26	_	1,088	1,088	0.02	0.04	0.11	1,102
Vendor	0.10	0.02	1.17	0.62	0.01	0.02	0.29	0.31	0.02	0.08	0.10	_	1,044	1,044	0.07	0.16	0.07	1,094
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	0.28	0.25	0.30	3.51	0.00	0.00	0.80	0.80	0.00	0.19	0.19	_	788	788	0.01	0.03	1.25	799
Vendor	0.07	0.01	0.84	0.44	0.01	0.01	0.21	0.22	0.01	0.06	0.07	_	746	746	0.05	0.11	0.85	782
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	0.05	0.05	0.05	0.64	0.00	0.00	0.15	0.15	0.00	0.03	0.03	_	131	131	< 0.005	0.01	0.21	132
Vendor	0.01	< 0.005	0.15	0.08	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	_	123	123	0.01	0.02	0.14	130
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. Building Construction (2027) - Unmitigated

Location	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Onsite	_	_	_		_	_	_	_	_	_	_	_	_	_	_	_	_	
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		1.03	9.39	12.9	0.02	0.34	_	0.34	0.31	_	0.31	-	2,397	2,397	0.10	0.02	_	2,405
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 Equipmen		1.03	9.39	12.9	0.02	0.34	_	0.34	0.31	_	0.31	_	2,397	2,397	0.10	0.02	_	2,405
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 Equipmen		0.36	3.33	4.58	0.01	0.12	_	0.12	0.11	_	0.11	-	849	849	0.03	0.01	-	852
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 Equipmen		0.07	0.61	0.84	< 0.005	0.02	_	0.02	0.02	_	0.02	-	141	141	0.01	< 0.005	-	141
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	0.40	0.35	0.30	5.76	0.00	0.00	1.12	1.12	0.00	0.26	0.26	_	1,163	1,163	0.01	0.04	3.66	1,179
Vendor	0.10	0.02	1.08	0.59	0.01	0.02	0.29	0.31	0.02	0.08	0.10	_	1,024	1,024	0.07	0.15	2.46	1,074
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	0.37	0.33	0.34	4.34	0.00	0.00	1.12	1.12	0.00	0.26	0.26	_	1,067	1,067	0.02	0.04	0.09	1,079
Vendor	0.09	0.02	1.13	0.59	0.01	0.02	0.29	0.31	0.02	0.08	0.10	-	1,025	1,025	0.07	0.15	0.06	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
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.13	0.12	0.13	1.61	0.00	0.00	0.40	0.40	0.00	0.09	0.09	-	383	383	0.01	0.01	0.56	388
Vendor	0.03	0.01	0.40	0.21	< 0.005	0.01	0.10	0.11	0.01	0.03	0.03	-	363	363	0.03	0.05	0.38	380
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	0.02	0.02	0.02	0.29	0.00	0.00	0.07	0.07	0.00	0.02	0.02	_	63.4	63.4	< 0.005	< 0.005	0.09	64.3
Vendor	0.01	< 0.005	0.07	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	-	60.1	60.1	< 0.005	0.01	0.06	62.9
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. Building Construction (2027) - Mitigated

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Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.33	2.82	14.8	0.02	0.07	_	0.07	0.07	_	0.07	_	2,397	2,397	0.10	0.02	_	2,405
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 Equipmen		0.33	2.82	14.8	0.02	0.07	_	0.07	0.07	_	0.07	_	2,397	2,397	0.10	0.02	_	2,405
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 Equipmen		0.12	1.00	5.25	0.01	0.03	_	0.03	0.03	_	0.03	_	849	849	0.03	0.01	-	852
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 Equipmen		0.02	0.18	0.96	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	141	141	0.01	< 0.005	-	141
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	0.40	0.35	0.30	5.76	0.00	0.00	1.12	1.12	0.00	0.26	0.26	_	1,163	1,163	0.01	0.04	3.66	1,179
Vendor	0.10	0.02	1.08	0.59	0.01	0.02	0.29	0.31	0.02	0.08	0.10	_	1,024	1,024	0.07	0.15	2.46	1,074
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	0.37	0.33	0.34	4.34	0.00	0.00	1.12	1.12	0.00	0.26	0.26	_	1,067	1,067	0.02	0.04	0.09	1,079
Vendor	0.09	0.02	1.13	0.59	0.01	0.02	0.29	0.31	0.02	0.08	0.10	_	1,025	1,025	0.07	0.15	0.06	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
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.13	0.12	0.13	1.61	0.00	0.00	0.40	0.40	0.00	0.09	0.09	_	383	383	0.01	0.01	0.56	388
Vendor	0.03	0.01	0.40	0.21	< 0.005	0.01	0.10	0.11	0.01	0.03	0.03	_	363	363	0.03	0.05	0.38	380

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	0.02	0.02	0.02	0.29	0.00	0.00	0.07	0.07	0.00	0.02	0.02	_	63.4	63.4	< 0.005	< 0.005	0.09	64.3
Vendor	0.01	< 0.005	0.07	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	_	60.1	60.1	< 0.005	0.01	0.06	62.9
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

# 3.13. Paving (2025) - Unmitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipment		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	_	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
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_	-
Off-Road Equipment		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	_	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
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipment		0.33	3.11	4.16	0.01	0.15	_	0.15	0.13	_	0.13	_	630	630	0.03	0.01	_	632
Paving		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
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.06	0.57	0.76	< 0.005	0.03	_	0.03	0.02	_	0.02	_	104	104	< 0.005	< 0.005	-	105
Paving	_	< 0.005	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
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	_	_	_	<u> </u>	_	_	_	_	_	_	_	_	-	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_	_
Worker	0.08	0.07	0.07	1.17	0.00	0.00	0.20	0.20	0.00	0.05	0.05	_	211	211	0.01	0.01	0.78	215
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
Daily, Winter (Max)	-	_	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_	_
Worker	0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	_	194	194	0.01	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	0.00	0.00	0.00	0.00	0.00	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	0.03	0.03	0.03	0.39	0.00	0.00	0.08	0.08	0.00	0.02	0.02	_	81.9	81.9	< 0.005	< 0.005	0.14	83.1
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	0.01	< 0.005	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	_	13.6	13.6	< 0.005	< 0.005	0.02	13.8
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

## 3.14. Paving (2025) - Mitigated

Location	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	<u> </u>	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.16	1.93	10.6	0.01	0.03	_	0.03	0.03	_	0.03	_	1,511	1,511	0.06	0.01	_	1,517
Paving	_	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
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.16	1.93	10.6	0.01	0.03	_	0.03	0.03	_	0.03	_	1,511	1,511	0.06	0.01	_	1,517
Paving	_	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
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.07	0.81	4.42	0.01	0.01	_	0.01	0.01	_	0.01	_	630	630	0.03	0.01	_	632
Paving	_	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
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.01	0.15	0.81	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	104	104	< 0.005	< 0.005	_	105
Paving	_	< 0.005	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

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	0.08	0.07	0.07	1.17	0.00	0.00	0.20	0.20	0.00	0.05	0.05	_	211	211	0.01	0.01	0.78	215
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
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	_	194	194	0.01	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	0.00	0.00	0.00	0.00	0.00	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	0.03	0.03	0.03	0.39	0.00	0.00	0.08	0.08	0.00	0.02	0.02	_	81.9	81.9	< 0.005	< 0.005	0.14	83.1
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	0.01	< 0.005	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	_	13.6	13.6	< 0.005	< 0.005	0.02	13.8
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

# 3.15. Paving (2026) - Unmitigated

			,	, ,				,	J,	,								
Location	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_	_
Off-Road Equipmen		0.76	7.12	9.94	0.01	0.32	_	0.32	0.29	_	0.29	_	1,511	1,511	0.06	0.01	_	1,516
Paving	_	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
Daily, Winter (Max)	_	_	_	_	_	_	_	_	-	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.76	7.12	9.94	0.01	0.32	_	0.32	0.29	_	0.29	_	1,511	1,511	0.06	0.01	_	1,516
Paving	_	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
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.54	5.08	7.10	0.01	0.23	_	0.23	0.21	_	0.21	-	1,079	1,079	0.04	0.01	_	1,083
Paving	_	0.02	_	_	_	_	_	<u> </u>	_	_	_	_	_	_	_	_	_	_
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 Equipmen		0.10	0.93	1.30	< 0.005	0.04	_	0.04	0.04	_	0.04	-	179	179	0.01	< 0.005	_	179
Paving	_	< 0.005	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
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	_	_	_	_	_	_	_	_	_	_	_	_	<u> </u>	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Worker	0.07	0.06	0.06	1.08	0.00	0.00	0.20	0.20	0.00	0.05	0.05	_	207	207	0.01	0.01	0.71	210
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
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	
Worker	0.07	0.06	0.07	0.82	0.00	0.00	0.20	0.20	0.00	0.05	0.05	_	190	190	< 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	0.05	0.04	0.05	0.61	0.00	0.00	0.14	0.14	0.00	0.03	0.03	_	138	138	< 0.005	0.01	0.22	139
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	0.01	0.01	0.01	0.11	0.00	0.00	0.03	0.03	0.00	0.01	0.01	_	22.8	22.8	< 0.005	< 0.005	0.04	23.1
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

# 3.16. Paving (2026) - Mitigated

				<i>J</i> ,														
Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.16	1.93	10.6	0.01	0.03	_	0.03	0.03	_	0.03	_	1,511	1,511	0.06	0.01	_	1,516
Paving	_	0.02	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
truck																		
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.16	1.93	10.6	0.01	0.03	-	0.03	0.03	_	0.03	-	1,511	1,511	0.06	0.01	_	1,516
Paving	_	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
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.11	1.38	7.57	0.01	0.02	_	0.02	0.02	_	0.02	_	1,079	1,079	0.04	0.01	_	1,083
Paving	_	0.02	_	<u> </u>	_	_	_	_	_	_	_	_	_	_	_	_	_	_
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 Equipmen		0.02	0.25	1.38	< 0.005	< 0.005	-	< 0.005	< 0.005	_	< 0.005	-	179	179	0.01	< 0.005	-	179
Paving	_	< 0.005	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
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	_	_	_	<u> </u>	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	-	_	_	_	_	_	_	_	_	_	_	-
Worker	0.07	0.06	0.06	1.08	0.00	0.00	0.20	0.20	0.00	0.05	0.05	_	207	207	0.01	0.01	0.71	210
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
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-

Worker	0.07	0.06	0.07	0.82	0.00	0.00	0.20	0.20	0.00	0.05	0.05	_	190	190	< 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	0.05	0.04	0.05	0.61	0.00	0.00	0.14	0.14	0.00	0.03	0.03	_	138	138	< 0.005	0.01	0.22	139
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	0.01	0.01	0.01	0.11	0.00	0.00	0.03	0.03	0.00	0.01	0.01	_	22.8	22.8	< 0.005	< 0.005	0.04	23.1
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

# 3.17. Paving (2027) - Unmitigated

	TOG	ROG	NOx	со				PM10T				BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.74	6.94	9.95	0.01	0.30	_	0.30	0.27	_	0.27	_	1,511	1,511	0.06	0.01	_	1,516
Paving	_	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
Daily, Winter (Max)	_		_	_	_		_	_	_	_	_	_	_	_		_		_
Off-Road Equipmen		0.74	6.94	9.95	0.01	0.30	_	0.30	0.27	_	0.27	_	1,511	1,511	0.06	0.01	_	1,516

Paving	_	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
Average Daily	_	_	_	_	_	_	_	_	_	_		_	_	_	_		_	_
Off-Road Equipmen		0.26	2.46	3.53	< 0.005	0.11	_	0.11	0.10	_	0.10	_	535	535	0.02	< 0.005	_	537
Paving	_	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
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.05	0.45	0.64	< 0.005	0.02	_	0.02	0.02	_	0.02	_	88.6	88.6	< 0.005	< 0.005	_	88.9
Paving	_	< 0.005	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
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	0.07	0.06	0.05	1.01	0.00	0.00	0.20	0.20	0.00	0.05	0.05	_	203	203	< 0.005	0.01	0.64	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	0.00	0.00	0.00	0.00	0.00	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	0.07	0.06	0.06	0.76	0.00	0.00	0.20	0.20	0.00	0.05	0.05	_	186	186	< 0.005	0.01	0.02	188
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	0.02	0.02	0.02	0.28	0.00	0.00	0.07	0.07	0.00	0.02	0.02	_	66.8	66.8	< 0.005	< 0.005	0.10	67.7

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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	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	_	11.1	11.1	< 0.005	< 0.005	0.02	11.2
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

# 3.18. Paving (2027) - Mitigated

Location	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	СО2Т	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.16	1.93	10.6	0.01	0.03	_	0.03	0.03	_	0.03	_	1,511	1,511	0.06	0.01	_	1,516
Paving	_	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
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.16	1.93	10.6	0.01	0.03	_	0.03	0.03	_	0.03	_	1,511	1,511	0.06	0.01	_	1,516
Paving	_	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
Average Daily	_	_	_	_	_		_	_	_	_	_	_	_	_	_		_	_
Off-Road Equipmen		0.06	0.68	3.75	< 0.005	0.01	_	0.01	0.01	_	0.01	_	535	535	0.02	< 0.005	_	537

Paving	_	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
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmer		0.01	0.12	0.69	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	88.6	88.6	< 0.005	< 0.005	_	88.9
Paving	_	< 0.005	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
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	0.07	0.06	0.05	1.01	0.00	0.00	0.20	0.20	0.00	0.05	0.05	_	203	203	< 0.005	0.01	0.64	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	0.00	0.00	0.00	0.00	0.00	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	0.07	0.06	0.06	0.76	0.00	0.00	0.20	0.20	0.00	0.05	0.05	_	186	186	< 0.005	0.01	0.02	188
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	0.02	0.02	0.02	0.28	0.00	0.00	0.07	0.07	0.00	0.02	0.02	_	66.8	66.8	< 0.005	< 0.005	0.10	67.7
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	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	-	11.1	11.1	< 0.005	< 0.005	0.02	11.2
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
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

# 3.19. Architectural Coating (2025) - Unmitigated

Location	TOG	ROG	NOx	co	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	СО2Т	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.13	0.88	1.14	< 0.005	0.03	_	0.03	0.03	_	0.03	_	134	134	0.01	< 0.005	_	134
Architect ural Coatings	_	3.74	_	_	_	_		_	_	_	_	_	_	_	_	_	_	_
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 Equipmen		0.13	0.88	1.14	< 0.005	0.03	-	0.03	0.03	_	0.03	_	134	134	0.01	< 0.005	_	134
Architect ural Coatings	_	3.74	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
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 Equipmen		0.05	0.37	0.48	< 0.005	0.01	_	0.01	0.01	_	0.01	_	55.7	55.7	< 0.005	< 0.005	_	55.8
Architect ural Coatings	_	1.56	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

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 Equipmen		0.01	0.07	0.09	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	-	9.21	9.21	< 0.005	< 0.005	_	9.25
Architect ural Coatings	_	0.28	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
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	0.09	0.08	0.08	1.34	0.00	0.00	0.22	0.22	0.00	0.05	0.05	_	242	242	0.01	0.01	0.90	246
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
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.08	0.07	0.08	1.01	0.00	0.00	0.22	0.22	0.00	0.05	0.05	_	222	222	0.01	0.01	0.02	225
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	0.03	0.03	0.04	0.44	0.00	0.00	0.09	0.09	0.00	0.02	0.02	_	93.9	93.9	< 0.005	< 0.005	0.16	95.2
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	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	_	15.5	15.5	< 0.005	< 0.005	0.03	15.8
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
riadiling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## 3.20. Architectural Coating (2025) - Mitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.02	0.65	0.96	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	134	134	0.01	< 0.005	_	134
Architect ural Coatings	_	3.74	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
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 Equipmen		0.02	0.65	0.96	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	134	134	0.01	< 0.005	_	134
Architect ural Coatings	_	3.74	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_	_
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 Equipmen		0.01	0.27	0.40	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	55.7	55.7	< 0.005	< 0.005	_	55.8
Architect ural Coatings	_	1.56	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

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 Equipmer		< 0.005	0.05	0.07	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	-	9.21	9.21	< 0.005	< 0.005	_	9.25
Architect ural Coatings	_	0.28	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
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	0.09	0.08	0.08	1.34	0.00	0.00	0.22	0.22	0.00	0.05	0.05	_	242	242	0.01	0.01	0.90	246
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
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.08	0.07	0.08	1.01	0.00	0.00	0.22	0.22	0.00	0.05	0.05	_	222	222	0.01	0.01	0.02	225
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	0.03	0.03	0.04	0.44	0.00	0.00	0.09	0.09	0.00	0.02	0.02	_	93.9	93.9	< 0.005	< 0.005	0.16	95.2
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	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	_	15.5	15.5	< 0.005	< 0.005	0.03	15.8
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
riadiling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

# 3.21. Architectural Coating (2026) - Unmitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.12	0.86	1.13	< 0.005	0.02	_	0.02	0.02	_	0.02	_	134	134	0.01	< 0.005	_	134
Architect ural Coatings	_	3.74	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
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 Equipmen		0.12	0.86	1.13	< 0.005	0.02	-	0.02	0.02	_	0.02	_	134	134	0.01	< 0.005	_	134
Architect ural Coatings	_	3.74	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
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 Equipmen		0.09	0.61	0.81	< 0.005	0.02	_	0.02	0.02	_	0.02	_	95.4	95.4	< 0.005	< 0.005	_	95.7
Architect ural Coatings	_	2.67	_	-	_	_	_	_	_	_	_	_	_	_	_	_	_	_

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 Equipmen		0.02	0.11	0.15	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	-	15.8	15.8	< 0.005	< 0.005	_	15.8
Architect ural Coatings	_	0.49	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
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	0.08	0.07	0.07	1.24	0.00	0.00	0.22	0.22	0.00	0.05	0.05	_	237	237	0.01	0.01	0.81	241
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
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.08	0.07	0.08	0.94	0.00	0.00	0.22	0.22	0.00	0.05	0.05	_	218	218	< 0.005	0.01	0.02	220
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	0.06	0.05	0.06	0.70	0.00	0.00	0.16	0.16	0.00	0.04	0.04	_	158	158	< 0.005	0.01	0.25	160
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	0.01	0.01	0.01	0.13	0.00	0.00	0.03	0.03	0.00	0.01	0.01	_	26.1	26.1	< 0.005	< 0.005	0.04	26.5
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
riadiling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## 3.22. Architectural Coating (2026) - Mitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.02	0.65	0.96	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	134	134	0.01	< 0.005	_	134
Architect ural Coatings	_	3.74	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
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 Equipmen		0.02	0.65	0.96	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	134	134	0.01	< 0.005	_	134
Architect ural Coatings	_	3.74	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
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 Equipmen		0.02	0.46	0.69	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	95.4	95.4	< 0.005	< 0.005	-	95.7
Architect ural Coatings	_	2.67	_	_	-	_	_	_	_	_	_	_	_	_	_	_	_	_

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 Equipmer		< 0.005	0.08	0.13	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	15.8	15.8	< 0.005	< 0.005	_	15.8
Architect ural Coatings	_	0.49	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
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	0.08	0.07	0.07	1.24	0.00	0.00	0.22	0.22	0.00	0.05	0.05	_	237	237	0.01	0.01	0.81	241
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
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_	_	_	_
Worker	0.08	0.07	0.08	0.94	0.00	0.00	0.22	0.22	0.00	0.05	0.05	_	218	218	< 0.005	0.01	0.02	220
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	_	_	-	<u> </u>	_	_	-	_	_	_	-	-	_	_	_	_	_	_
Worker	0.06	0.05	0.06	0.70	0.00	0.00	0.16	0.16	0.00	0.04	0.04	_	158	158	< 0.005	0.01	0.25	160
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	0.01	0.01	0.01	0.13	0.00	0.00	0.03	0.03	0.00	0.01	0.01	_	26.1	26.1	< 0.005	< 0.005	0.04	26.5
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

H	auling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

## 3.23. Architectural Coating (2027) - Unmitigated

	TOG	ROG	NOx	CO	r for ann	PM10E	PM10D	PM10T		PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
	100	ROG	NOX	00	302	PIVITUE	PIVITUD	PIVITUT	PIVIZ.5E	PIVIZ.5D	PIVIZ.51	BCOZ	NBC02	0021	СП4	INZU	K	COZE
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_		_	_	_	_	_		_	_	_	_	_	_	_	_
Off-Road Equipmen		0.11	0.83	1.13	< 0.005	0.02	_	0.02	0.02	_	0.02	_	134	134	0.01	< 0.005	_	134
Architect ural Coatings	_	3.74	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	
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 Equipmen		0.11	0.83	1.13	< 0.005	0.02	_	0.02	0.02	_	0.02	_	134	134	0.01	< 0.005	_	134
Architect ural Coatings	_	3.74	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
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 Equipmen		0.04	0.29	0.40	< 0.005	0.01	_	0.01	0.01	_	0.01	_	47.3	47.3	< 0.005	< 0.005	_	47.5
Architect ural Coatings	_	1.32	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

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 Equipmen		0.01	0.05	0.07	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	7.83	7.83	< 0.005	< 0.005	_	7.86
Architect ural Coatings	_	0.24	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
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	0.08	0.07	0.06	1.15	0.00	0.00	0.22	0.22	0.00	0.05	0.05	_	233	233	< 0.005	0.01	0.73	236
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
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.07	0.07	0.07	0.87	0.00	0.00	0.22	0.22	0.00	0.05	0.05	_	213	213	< 0.005	0.01	0.02	216
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	0.03	0.02	0.03	0.32	0.00	0.00	0.08	0.08	0.00	0.02	0.02	_	76.6	76.6	< 0.005	< 0.005	0.11	77.6
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	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	_	12.7	12.7	< 0.005	< 0.005	0.02	12.9
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
riadiling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## 3.24. Architectural Coating (2027) - Mitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	<u> </u>	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.02	0.65	0.96	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	134	134	0.01	< 0.005	_	134
Architect ural Coatings	_	3.74	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	
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 Equipmen		0.02	0.65	0.96	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	134	134	0.01	< 0.005	_	134
Architect ural Coatings	-	3.74	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_	
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 Equipmen		0.01	0.23	0.34	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	47.3	47.3	< 0.005	< 0.005	_	47.5
Architect ural Coatings	_	1.32	_	-	_	_	_	_	_	_	_	_	_	_	-	_	_	_

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 Equipmer		< 0.005	0.04	0.06	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	7.83	7.83	< 0.005	< 0.005	_	7.86
Architect ural Coatings	_	0.24	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
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	0.08	0.07	0.06	1.15	0.00	0.00	0.22	0.22	0.00	0.05	0.05	_	233	233	< 0.005	0.01	0.73	236
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
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.07	0.07	0.07	0.87	0.00	0.00	0.22	0.22	0.00	0.05	0.05	_	213	213	< 0.005	0.01	0.02	216
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	0.03	0.02	0.03	0.32	0.00	0.00	0.08	0.08	0.00	0.02	0.02	_	76.6	76.6	< 0.005	< 0.005	0.11	77.6
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	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	_	12.7	12.7	< 0.005	< 0.005	0.02	12.9
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

Haulir	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
i iauiii	0.00	0.00	0.00	0.00	0.00	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

Land Use	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	-	-	-	_	-	-	_	-	-	-	-	-	-	-
Hotel	0.66	0.55	0.96	10.0	0.03	0.02	2.57	2.58	0.02	0.65	0.67	_	2,918	2,918	0.10	0.12	9.19	2,964
Health Club	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Place of Worship	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	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-Asph Surfaces	0.00 alt	0.00	0.00	0.00	0.00	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
High Turnover (Sit Down Restaurar		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

Recreati onal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Swimmin Pool																		
Arena	0.00	0.00	0.00	0.00	0.00	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	0.66	0.55	0.96	10.0	0.03	0.02	2.57	2.58	0.02	0.65	0.67	_	2,918	2,918	0.10	0.12	9.19	2,964
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Hotel	0.63	0.52	1.03	7.93	0.03	0.02	2.57	2.58	0.02	0.65	0.67	_	2,733	2,733	0.10	0.12	0.24	2,771
Health Club	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Place of Worship	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	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-Asph Surfaces	0.00 alt	0.00	0.00	0.00	0.00	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
High Turnover (Sit Down Restaurar		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Recreati onal Swimmin g Pool	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Arena	0.00	0.00	0.00	0.00	0.00	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	0.63	0.52	1.03	7.93	0.03	0.02	2.57	2.58	0.02	0.65	0.67	_	2,733	2,733	0.10	0.12	0.24	2,771
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Hotel	0.12	0.09	0.19	1.51	< 0.005	< 0.005	0.47	0.47	< 0.005	0.12	0.12	_	457	457	0.02	0.02	0.66	464
Health Club	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Place of Worship	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	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-Asph Surfaces	0.00 alt	0.00	0.00	0.00	0.00	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
High Turnover (Sit Down Restaurar	0.00 t)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Recreati onal Swimmin g Pool	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00
Arena	0.00	0.00	0.00	0.00	0.00	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	0.12	0.09	0.19	1.51	< 0.005	< 0.005	0.47	0.47	< 0.005	0.12	0.12	_	457	457	0.02	0.02	0.66	464

## 4.1.2. Mitigated

Land Use	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Hotel	0.66	0.55	0.96	10.0	0.03	0.02	2.57	2.58	0.02	0.65	0.67	_	2,918	2,918	0.10	0.12	9.19	2,964

Health Club	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Place of Worship	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	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-Asph Surfaces	0.00 nalt	0.00	0.00	0.00	0.00	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
High Turnover (Sit Down Restaurar		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Recreati onal Swimmin g Pool	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Arena	0.00	0.00	0.00	0.00	0.00	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	0.66	0.55	0.96	10.0	0.03	0.02	2.57	2.58	0.02	0.65	0.67	_	2,918	2,918	0.10	0.12	9.19	2,964
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_		_	_	_	-
Hotel	0.63	0.52	1.03	7.93	0.03	0.02	2.57	2.58	0.02	0.65	0.67	_	2,733	2,733	0.10	0.12	0.24	2,771
Health Club	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Place of Worship	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	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-Aspha Surfaces	0.00 alt	0.00	0.00	0.00	0.00	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
High Turnover (Sit Down Restaurar	0.00 t)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Recreati onal Swimmin g Pool	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Arena	0.00	0.00	0.00	0.00	0.00	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	0.63	0.52	1.03	7.93	0.03	0.02	2.57	2.58	0.02	0.65	0.67	_	2,733	2,733	0.10	0.12	0.24	2,771
Annual	_	_	_		_	_	_	_	_	_	_	_	_	_	_	_	_	_
Hotel	0.12	0.09	0.19	1.51	< 0.005	< 0.005	0.47	0.47	< 0.005	0.12	0.12	_	457	457	0.02	0.02	0.66	464
Health Club	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Place of Worship	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	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-Aspha Surfaces	0.00 alt	0.00	0.00	0.00	0.00	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
High Turnover (Sit Down Restaurar	0.00 t)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00

Recreati Swimming Pool	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Arena	0.00	0.00	0.00	0.00	0.00	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	0.12	0.09	0.19	1.51	< 0.005	< 0.005	0.47	0.47	< 0.005	0.12	0.12	_	457	457	0.02	0.02	0.66	464

# 4.2. Energy

#### 4.2.1. Electricity Emissions By Land Use - Unmitigated

Land Use	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T				BCO2	NBCO2	СО2Т	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-	_	-
Hotel	_	_	_	_	_	_	_	_	_	_	_	_	2,073	2,073	0.20	0.02	_	2,085
Health Club	_	_	_	_	_	_	_	_	_	_	_	_	84.8	84.8	0.01	< 0.005	_	85.3
Place of Worship	_	_	_	_	_	_	_	_	_	_	_	_	42.2	42.2	< 0.005	< 0.005	_	42.4
General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	363	363	0.03	< 0.005	_	365
Other Non-Aspha Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	_	0.00
Other Asphalt Surfaces	_	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	_	0.00
High Turnover (Sit Down Restaurar		_	_	_	_	_	_	_	_	_	_	_	1,173	1,173	0.11	0.01	_	1,180

Recreati Swimming Pool	_	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	_	0.00
Arena	_	_	_	_	_	_	_	_	_	_	_	_	10.4	10.4	< 0.005	< 0.005	_	10.5
Total	_	_	_	_	_	_	_	_	_	_	_	_	3,746	3,746	0.36	0.04	_	3,768
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Hotel	_	_	_	_	_	_	_	_	_	_	_	_	2,073	2,073	0.20	0.02	_	2,085
Health Club	_	_	_	_	_	_	_	_	_	_	_	_	84.8	84.8	0.01	< 0.005	_	85.3
Place of Worship	_	_	_	_	-	_	_	_	_	_	_	_	42.2	42.2	< 0.005	< 0.005	_	42.4
General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	363	363	0.03	< 0.005	-	365
Other Non-Aspha Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	_	0.00
Other Asphalt Surfaces	_	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	_	0.00
High Turnover (Sit Down Restaurar	— t)	_	_	_	_	_	_	-	_	_	-	_	1,173	1,173	0.11	0.01	_	1,180
Recreati onal Swimmin g Pool	_	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	_	0.00
Arena	_	_	_	_	_	_	_	_	_	_	_	_	10.4	10.4	< 0.005	< 0.005	_	10.5
Total	_	-	_	_	_	_	_	_	_	_	_	_	3,746	3,746	0.36	0.04	_	3,768
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Hotel	_	_	_	_	_	_	_	_	_	_	_	_	343	343	0.03	< 0.005	_	345

Health Club	_	_	_	_	_	_	_	_	_	_	_	_	14.0	14.0	< 0.005	< 0.005	_	14.1
Place of Worship	_	_	-	_	_	_	_	_	_	_	_	_	6.98	6.98	< 0.005	< 0.005	_	7.02
General Office Building	_	_	-	_	_	_	_	_	_	_	_	_	60.1	60.1	0.01	< 0.005	_	60.5
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	_	0.00
Other Asphalt Surfaces	_	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	_	0.00
High Turnover (Sit Down Restaurar		_	_	_	_	_	_	_	_	_	_	_	194	194	0.02	< 0.005	_	195
Recreati onal Swimmin g Pool	_	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	_	0.00
Arena	_	_	_	_	_	_	_	_	_	_	_	_	1.73	1.73	< 0.005	< 0.005	_	1.74
Total	_	_	_	_	_	_	_	_	_	_	_	_	620	620	0.06	0.01	_	624

## 4.2.2. Electricity Emissions By Land Use - Mitigated

Land Use	TOG	ROG		СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Hotel	_	_	_	_	_	_	_	_	_	_	_	_	2,073	2,073	0.20	0.02	_	2,085

Health Club	_	_	_	_	_	_	_	_	_	_	_	_	84.8	84.8	0.01	< 0.005	_	85.3
Place of Worship	_	_	_	_	_	_	_	_	_	_	_	_	42.2	42.2	< 0.005	< 0.005	_	42.4
General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	363	363	0.03	< 0.005	_	365
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	_	0.00
Other Asphalt Surfaces	_	_	_	_	_	_		_	_	_	-	-	0.00	0.00	0.00	0.00	_	0.00
High Turnover (Sit Down Restaurar		_	_	_	_	-	_	_	_	_	_	-	1,173	1,173	0.11	0.01	_	1,180
Recreati onal Swimmin g Pool	_	_	_	-	_	_	_	_	_	-	_	_	0.00	0.00	0.00	0.00	_	0.00
Arena	_	_	_	_	_	_	_	_	_	_	_	_	10.4	10.4	< 0.005	< 0.005	_	10.5
Total	_	_	_	<u> </u>	_	_	_	_	_	_	_	_	3,746	3,746	0.36	0.04	_	3,768
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_	_
Hotel	_	_	_	-	_	_	_	_	_	_	_	-	2,073	2,073	0.20	0.02	_	2,085
Health Club	_	_	_	-	_	_	_	_	_	_	_	_	84.8	84.8	0.01	< 0.005	-	85.3
Place of Worship	_	_	_	_	_	_	_	_	_	_	_	_	42.2	42.2	< 0.005	< 0.005	-	42.4
General Office Building	_	_	_	_	_	_	-	_	_	_	_	_	363	363	0.03	< 0.005	_	365

Other Non-Asph Surfaces	— alt	_	_	_	_			_	_		_		0.00	0.00	0.00	0.00		0.00
Other Asphalt Surfaces	_	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	_	0.00
High Turnover (Sit Down Restaurar	t)	_	_	_	_	_	_	_	_	_	_	_	1,173	1,173	0.11	0.01	_	1,180
Recreati onal Swimmin g Pool	_	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	_	0.00
Arena	_	_	_	_	_	_	_	_	_	_	_	_	10.4	10.4	< 0.005	< 0.005	_	10.5
Total	_	_	_	_	_	_	_	_	_	_	_	_	3,746	3,746	0.36	0.04	_	3,768
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Hotel	_	_	_	_	_	_	_	_	_	_	_	_	343	343	0.03	< 0.005	_	345
Health Club		_	_	_	_	_	_	_	_	_	_	_	14.0	14.0	< 0.005	< 0.005	_	14.1
Place of Worship	_	_	_	_	_	_	_	_	_	_	_	_	6.98	6.98	< 0.005	< 0.005	_	7.02
General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	60.1	60.1	0.01	< 0.005	_	60.5
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	_	0.00
Other Asphalt Surfaces	_	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	_	0.00
High Turnover (Sit Down Restaurar		_	_	_	_	_	_	_	_	_	_	_	194	194	0.02	< 0.005	_	195

Recreati Swimming Pool		_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	_	0.00
Arena	_	_	_	_	_	_	_	_		_	_	_	1.73	1.73	< 0.005	< 0.005	_	1.74
Total	_	_	_	_	_	_	_	_	_	_	_	_	620	620	0.06	0.01	_	624

### 4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Ontona		its (ib/da	y ioi dai			uai) and	<u> </u>											
Land Use	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Hotel	0.12	0.06	1.10	0.92	0.01	0.08	_	0.08	0.08	_	0.08	_	1,311	1,311	0.12	< 0.005	_	1,315
Health Club	0.01	0.01	0.11	0.09	< 0.005	0.01	_	0.01	0.01	_	0.01	_	129	129	0.01	< 0.005	_	129
Place of Worship	0.01	< 0.005	0.05	0.05	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	64.1	64.1	0.01	< 0.005	_	64.3
General Office Building	0.02	0.01	0.16	0.14	< 0.005	0.01	_	0.01	0.01	_	0.01	_	193	193	0.02	< 0.005	_	193
Other Non-Asph Surfaces	0.00 nalt	0.00	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
High Turnover (Sit Down Restaurar		0.06	1.08	0.91	0.01	0.08	_	0.08	0.08	_	0.08	_	1,291	1,291	0.11	< 0.005	_	1,295

Recreati onal Swimmin g	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	_	0.00	_	0.00	0.00	0.00	0.00	_	0.00
	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	15.8	15.8	< 0.005	< 0.005	_	15.9
Total	0.28	0.14	2.52	2.12	0.02	0.19	_	0.19	0.19	_	0.19	_	3,004	3,004	0.27	0.01	_	3,013
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Hotel	0.12	0.06	1.10	0.92	0.01	0.08	_	0.08	0.08	_	0.08	_	1,311	1,311	0.12	< 0.005	_	1,315
Health Club	0.01	0.01	0.11	0.09	< 0.005	0.01	_	0.01	0.01	_	0.01	_	129	129	0.01	< 0.005	_	129
Place of Worship	0.01	< 0.005	0.05	0.05	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	64.1	64.1	0.01	< 0.005	_	64.3
General Office Building	0.02	0.01	0.16	0.14	< 0.005	0.01	_	0.01	0.01	-	0.01	_	193	193	0.02	< 0.005	_	193
Other Non-Asph Surfaces	0.00 alt	0.00	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
High Turnover (Sit Down Restaurar	0.12 t)	0.06	1.08	0.91	0.01	0.08	_	0.08	0.08	_	0.08	_	1,291	1,291	0.11	< 0.005	_	1,295
Recreati onal Swimmin g Pool	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	-	0.00	_	0.00	0.00	0.00	0.00	_	0.00
Arena	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	15.8	15.8	< 0.005	< 0.005	_	15.9
Total	0.28	0.14	2.52	2.12	0.02	0.19	_	0.19	0.19	_	0.19	_	3,004	3,004	0.27	0.01	_	3,013
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Hotel	0.02	0.01	0.20	0.17	< 0.005	0.02	_	0.02	0.02	_	0.02	_	217	217	0.02	< 0.005	_	218
Health Club	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	21.3	21.3	< 0.005	< 0.005	_	21.4
Place of Worship	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	10.6	10.6	< 0.005	< 0.005	_	10.6
General Office Building	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	-	31.9	31.9	< 0.005	< 0.005	_	32.0
Other Non-Aspha Surfaces	0.00 alt	0.00	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
High Turnover (Sit Down Restaurar	0.02 t)	0.01	0.20	0.17	< 0.005	0.02	_	0.02	0.02	_	0.02	_	214	214	0.02	< 0.005	_	214
Recreati onal Swimmin g Pool	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	_	0.00	_	0.00	0.00	0.00	0.00	_	0.00
Arena	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	2.62	2.62	< 0.005	< 0.005	_	2.63
Total	0.05	0.03	0.46	0.39	< 0.005	0.03	_	0.03	0.03	_	0.03	_	497	497	0.04	< 0.005	_	499

### 4.2.4. Natural Gas Emissions By Land Use - Mitigated

Land Use	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Hotel	0.12	0.06	1.10	0.92	0.01	0.08	_	0.08	0.08	_	0.08	_	1,311	1,311	0.12	< 0.005	_	1,315

Health Club	0.01	0.01	0.11	0.09	< 0.005	0.01	_	0.01	0.01	_	0.01	-	129	129	0.01	< 0.005	-	129
Place of Worship	0.01	< 0.005	0.05	0.05	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	64.1	64.1	0.01	< 0.005	_	64.3
General Office Building	0.02	0.01	0.16	0.14	< 0.005	0.01	_	0.01	0.01	_	0.01	_	193	193	0.02	< 0.005	_	193
Other Non-Asph Surfaces	0.00 alt	0.00	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
High Turnover (Sit Down Restaurar		0.06	1.08	0.91	0.01	0.08	_	0.08	0.08	_	0.08	_	1,291	1,291	0.11	< 0.005	_	1,295
Recreati onal Swimmin g Pool	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	_	0.00	_	0.00	0.00	0.00	0.00	_	0.00
Arena	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	15.8	15.8	< 0.005	< 0.005	_	15.9
Total	0.28	0.14	2.52	2.12	0.02	0.19	_	0.19	0.19	_	0.19	_	3,004	3,004	0.27	0.01	_	3,013
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Hotel	0.12	0.06	1.10	0.92	0.01	0.08	_	0.08	0.08	_	0.08	_	1,311	1,311	0.12	< 0.005	_	1,315
Health Club	0.01	0.01	0.11	0.09	< 0.005	0.01	_	0.01	0.01	_	0.01	-	129	129	0.01	< 0.005	_	129
Place of Worship	0.01	< 0.005	0.05	0.05	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	64.1	64.1	0.01	< 0.005	_	64.3
General Office Building	0.02	0.01	0.16	0.14	< 0.005	0.01	_	0.01	0.01	_	0.01	_	193	193	0.02	< 0.005	_	193

Other Non-Aspha Surfaces	0.00 alt	0.00	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
High Turnover (Sit Down Restaurar	0.12 t)	0.06	1.08	0.91	0.01	0.08	_	0.08	0.08	_	0.08	_	1,291	1,291	0.11	< 0.005	_	1,295
Recreati onal Swimmin g Pool	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	_	0.00	_	0.00	0.00	0.00	0.00	_	0.00
Arena	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	15.8	15.8	< 0.005	< 0.005	_	15.9
Total	0.28	0.14	2.52	2.12	0.02	0.19	_	0.19	0.19	_	0.19	_	3,004	3,004	0.27	0.01	_	3,013
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Hotel	0.02	0.01	0.20	0.17	< 0.005	0.02	_	0.02	0.02	_	0.02	_	217	217	0.02	< 0.005	_	218
Health Club	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	21.3	21.3	< 0.005	< 0.005	_	21.4
Place of Worship	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	10.6	10.6	< 0.005	< 0.005	_	10.6
General Office Building	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	31.9	31.9	< 0.005	< 0.005	_	32.0
Other Non-Aspha Surfaces	0.00 alt	0.00	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
High Turnover (Sit Down Restaurar	0.02 t)	0.01	0.20	0.17	< 0.005	0.02	_	0.02	0.02	_	0.02	_	214	214	0.02	< 0.005	_	214

Recreati Swimming Pool	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	_	0.00	_	0.00	0.00	0.00	0.00	_	0.00
Arena	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	2.62	2.62	< 0.005	< 0.005	_	2.63
Total	0.05	0.03	0.46	0.39	< 0.005	0.03	_	0.03	0.03	_	0.03	_	497	497	0.04	< 0.005	_	499

# 4.3. Area Emissions by Source

### 4.3.1. Unmitigated

		110 (1107 0101	,	j,		, , , , , ,	· · · · · · ·		,,	,	o							
Source	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Consum er Products	_	4.51	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Architect ural Coatings	_	0.56	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Landsca pe Equipme nt	1.62	1.50	0.08	9.11	< 0.005	0.02	_	0.02	0.01	_	0.01	_	37.4	37.4	< 0.005	< 0.005	_	37.6
Total	1.62	6.56	0.08	9.11	< 0.005	0.02	_	0.02	0.01	_	0.01	_	37.4	37.4	< 0.005	< 0.005	_	37.6
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Consum er Products	_	4.51		_			_	_	_	_	_	_	_	_	_	_	_	_
Architect ural Coatings	_	0.56	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Total	_	5.06	_	-	_	_	_	_	_	_	_	_	_	_	-	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	<u> </u>	_
Consum er Products	_	0.82	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Architect ural Coatings		0.10	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Landsca pe Equipme nt	0.20	0.19	0.01	1.14	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	4.25	4.25	< 0.005	< 0.005	_	4.26
Total	0.20	1.11	0.01	1.14	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	4.25	4.25	< 0.005	< 0.005	_	4.26

#### 4.3.2. Mitigated

Source	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Cource	100	IXOU	IVOX	00	002	ITWITCE	I WITOD	I WITOI	I IVIZ.UL	I WIZ.JD	1 1012.01	D002	NDOOZ	0021	0117	1120	IX.	0026
Daily, Summer (Max)	_	_	_	_	_		_	_	_	_	_	_	_	_	_	_	_	_
Consum er Products	_	4.51	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Architect ural Coatings	_	0.56	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Landsca pe Equipme nt	1.62	1.50	0.08	9.11	< 0.005	0.02	_	0.02	0.01	_	0.01	_	37.4	37.4	< 0.005	< 0.005	_	37.6
Total	1.62	6.56	0.08	9.11	< 0.005	0.02	_	0.02	0.01	_	0.01	_	37.4	37.4	< 0.005	< 0.005	_	37.6
Daily, Winter (Max)	_	_	_	_	_		_	_	_	_	_	_	_	_	_	_	_	_

Consum Products	_	4.51			_	_	_	_	_	_	_	_	_	_	_	_	_	_
Architect ural Coatings		0.56	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	5.06	_	_		_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Consum er Products	_	0.82	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Architect ural Coatings	_	0.10	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Landsca pe Equipme nt	0.20	0.19	0.01	1.14	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	4.25	4.25	< 0.005	< 0.005	_	4.26
Total	0.20	1.11	0.01	1.14	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	4.25	4.25	< 0.005	< 0.005	_	4.26

# 4.4. Water Emissions by Land Use

#### 4.4.1. Unmitigated

Land Use	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Hotel	_	_	_	_	_	_	_	_	_	_	_	2.33	7.86	10.2	0.24	0.01	_	17.9
Health Club	_	_	_	_	_	_	_	_	_	_	_	1.06	3.58	4.64	0.11	< 0.005	_	8.16
Place of Worship	_	_	_	_	_	_	_	_	_	_	_	0.28	0.94	1.22	0.03	< 0.005	_	2.15

General Office Building	_	_	_	_	_	_	_	_	_	_	_	7.47	25.2	32.6	0.77	0.02	_	57.4
Other Non-Aspha Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	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
High Turnover (Sit Down Restaurar	t)	_	_	_	_	_	_	_	_	_	_	20.5	69.1	89.6	2.11	0.05	_	157
Recreati onal Swimmin g Pool	_	_	_	_	_	_			_	_	_	0.07	0.23	0.30	0.01	< 0.005	_	0.53
Arena	_	_	_	_	_	_	_	_	_	_	_	0.95	3.20	4.16	0.10	< 0.005	_	7.30
Total	_	_	_	_	_	_	_	_	_	_	_	32.7	110	143	3.36	0.08	_	251
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Hotel	_	_	_	_	_	_	_	_	_	_	_	2.33	7.86	10.2	0.24	0.01	_	17.9
Health Club	_	_	_	_	_	_	_	_	_	_	_	1.06	3.58	4.64	0.11	< 0.005	_	8.16
Place of Worship	_	_	_	_	_	_	_	_	_	_	_	0.28	0.94	1.22	0.03	< 0.005	_	2.15
General Office Building	_	_	_	_	_	_	_	_	_	_	-	7.47	25.2	32.6	0.77	0.02	_	57.4
Other Non-Aspha Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	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
High Turnover (Sit Down Restaurar	 t)	-	-	_	_	_	_	_	_	_	_	20.5	69.1	89.6	2.11	0.05	_	157
Recreati onal Swimmin g Pool		_	_	_	_	_	_	_	_	_	_	0.07	0.23	0.30	0.01	< 0.005	_	0.53
Arena	_	_	_	_	_	_	_	_	_	_	_	0.95	3.20	4.16	0.10	< 0.005	_	7.30
Total	_	_	_	_	_	_	_	_	_	_	_	32.7	110	143	3.36	0.08	_	251
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Hotel	_	_	_	_	_	_	_	_	_	_	_	0.39	1.30	1.69	0.04	< 0.005	_	2.97
Health Club	_	_	_	_	_	_	_	_	_	_	_	0.18	0.59	0.77	0.02	< 0.005	_	1.35
Place of Worship	_	_	_	_	_	_	_	_	_	_	_	0.05	0.16	0.20	< 0.005	< 0.005	_	0.36
General Office Building	_	_	_	_	_	_	_	_	_	_	_	1.24	4.17	5.41	0.13	< 0.005	_	9.50
Other Non-Aspha Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	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
High Turnover (Sit Down Restaurar	t)	_	_	_	_	_	_	_	_	_	_	3.40	11.4	14.8	0.35	0.01	_	26.1

Recreati onal Swimmin g	_	_	_	_	_	_	_	_	_	_	_	0.01	0.04	0.05	< 0.005	< 0.005	_	0.09
Arena	_	_	_	_	_	_	_	_	_	_	_	0.16	0.53	0.69	0.02	< 0.005	_	1.21
Total	_	_	_	_	_	_	_	_	_	_	_	5.41	18.2	23.6	0.56	0.01	_	41.5

### 4.4.2. Mitigated

	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E			BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	-	-	_	_	-	_	_	_	_	_	_	_	_	_	_	_	_
Hotel	_	_	_	_	_	_	_	_	_	_	_	2.33	7.86	10.2	0.24	0.01	_	17.9
Health Club	_	_	_	_	_	_	_	_	_	_	_	1.06	3.58	4.64	0.11	< 0.005	_	8.16
Place of Worship	_	_	_	_	_	_	_	_	_	_	_	0.28	0.94	1.22	0.03	< 0.005	_	2.15
General Office Building	_	_	_	_	_	_	_	_	_	_	_	7.47	25.2	32.6	0.77	0.02	_	57.4
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	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
High Turnover (Sit Down Restaurar		_	_	_	_	_	_	_	_	_	_	20.5	69.1	89.6	2.11	0.05	_	157

Recreati onal Swimmin Pool	_	_	_	_	_	_	_	_	_	_	_	0.07	0.23	0.30	0.01	< 0.005	_	0.53
Arena	_	_	_	_	_	_	_	_	_	_	_	0.95	3.20	4.16	0.10	< 0.005	_	7.30
Total	_	_	_	_	_	_	_	_	_	_	_	32.7	110	143	3.36	0.08	_	251
Daily, Winter (Max)	_	_	_	-	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Hotel	_	_	_	_	_	_	_	_	_	_	_	2.33	7.86	10.2	0.24	0.01	_	17.9
Health Club	_	_	_	_	_	_	_	_	_	_	_	1.06	3.58	4.64	0.11	< 0.005	_	8.16
Place of Worship	_	_	_	_	_	_	_	_	_	_	_	0.28	0.94	1.22	0.03	< 0.005	_	2.15
General Office Building	_	_	_	-	_	_	_	_	_	_	_	7.47	25.2	32.6	0.77	0.02	_	57.4
Other Non-Asph Surfaces	— alt	_	_	-	_	_	_	_	_	_	_	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
High Turnover (Sit Down Restaurar		_	_	_	_	_	_	_	_	_	_	20.5	69.1	89.6	2.11	0.05	_	157
Recreati onal Swimmin g Pool	_	_	_	_	_	_	_	_	_	_	_	0.07	0.23	0.30	0.01	< 0.005	_	0.53
Arena	_	_	_	_	_	_	_	_	_	_	_	0.95	3.20	4.16	0.10	< 0.005	_	7.30
Total	_	_	_	_	_	_	_	_	_	_	_	32.7	110	143	3.36	0.08	_	251
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Hotel	_	_	_	_	_	_	_	_	_	_	_	0.39	1.30	1.69	0.04	< 0.005	_	2.97
Health Club	_	_	_	_	_	_	_	_	_	_	_	0.18	0.59	0.77	0.02	< 0.005	_	1.35
Place of Worship	_	_	_	_	_	_	_	_	_	_	_	0.05	0.16	0.20	< 0.005	< 0.005	_	0.36
General Office Building	_	_	_	_	_	_	_	_	_	_	_	1.24	4.17	5.41	0.13	< 0.005	_	9.50
Other Non-Aspha Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	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
High Turnover (Sit Down Restaurar		_	_	_	_	_	_	_	_	_	_	3.40	11.4	14.8	0.35	0.01	_	26.1
Recreati onal Swimmin g Pool	_	_	_	_	_	_	_	_	_	_	_	0.01	0.04	0.05	< 0.005	< 0.005	_	0.09
Arena	_	_	_	_	_	_	_	_	_	_	_	0.16	0.53	0.69	0.02	< 0.005	_	1.21
Total	_	_	_	_	_	_	_	_	_	_	_	5.41	18.2	23.6	0.56	0.01	_	41.5

# 4.5. Waste Emissions by Land Use

### 4.5.1. Unmitigated

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

Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-	_
Hotel	_	_	_	_	_	_	_	_	_	_	_	14.2	0.00	14.2	1.42	0.00	_	49.6
Health Club	_	-	_	_	-	-	_	-	_	_	-	28.8	0.00	28.8	2.88	0.00	-	101
Place of Worship	_	_	-	_	_	_	_	_	_	_	_	14.3	0.00	14.3	1.43	0.00	-	50.1
General Office Building	_	_	_	_	-	_	-	-	-	_	_	11.0	0.00	11.0	1.10	0.00	_	38.5
Other Non-Asph Surfaces	— alt	_	_	_	-	-	-	-	_	_	-	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
High Turnover (Sit Down Restaurar		_	_	_	_	_	_	_	_	_	_	226	0.00	226	22.6	0.00	_	791
Recreati onal Swimmin g Pool	_	_	_	_	_	_	_	_	_	_	_	1.86	0.00	1.86	0.19	0.00	_	6.51
Arena	_	_	_	_	_	_	_	_	_	_	_	0.02	0.00	0.02	< 0.005	0.00	_	0.06
Total	_	_	_	_	_	_	_	_	_	_	_	296	0.00	296	29.6	0.00	_	1,037
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Hotel	_	_	_	_	_	_	_	_	_	_	_	14.2	0.00	14.2	1.42	0.00	_	49.6
Health Club	_	_	_	_	_	_	_	_	_	_	_	28.8	0.00	28.8	2.88	0.00	_	101

Place of Worship	_	_	_	_	_	_	_	_	_		_	14.3	0.00	14.3	1.43	0.00	_	50.1
General Office Building	_	_	_	_	_	_	_	_	_	_	_	11.0	0.00	11.0	1.10	0.00	_	38.5
Other Non-Aspha Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	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
High Turnover (Sit Down Restauran	t)	-	_	_	_	_	_	_	_	_	_	226	0.00	226	22.6	0.00	-	791
Recreati onal Swimmin g Pool	_	_	_	-	_	-	_	_	_	_	-	1.86	0.00	1.86	0.19	0.00	_	6.51
Arena	_	_	_	_	_	_	_	_	_	_	_	0.02	0.00	0.02	< 0.005	0.00	_	0.06
Total	_	_	_	_	_	_	_	_	_	_	_	296	0.00	296	29.6	0.00	_	1,037
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Hotel	_	_	_	_	_	_	_	_	_	_	_	2.34	0.00	2.34	0.23	0.00	_	8.20
Health Club	_	_	_	_	-	_	-	_	-	_	_	4.77	0.00	4.77	0.48	0.00	_	16.7
Place of Worship	_	_	_	_	_	_	-	_	_	_	_	2.37	0.00	2.37	0.24	0.00	_	8.30
General Office Building	_	_	_	_	_	_	_	_	_	_	_	1.82	0.00	1.82	0.18	0.00	_	6.37
Other Non-Aspha Surfaces	— alt	_	_	_	_	_	_	_		_	_	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
High Turnover (Sit Down Restaurar		_	_	_	_	_	_	_	_	_	_	37.4	0.00	37.4	3.74	0.00	_	131
Recreati onal Swimmin g Pool	_	_	_	_	_	_	_	_	_	_	_	0.31	0.00	0.31	0.03	0.00	_	1.08
Arena	_	_	_	_	_	_	_	_	_	_	_	< 0.005	0.00	< 0.005	< 0.005	0.00	_	0.01
Total	_	_	_	_	_	_	_	_	_	_	_	49.1	0.00	49.1	4.90	0.00	_	172

### 4.5.2. Mitigated

Land Use	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Hotel	_	_	_	_	_	_	_	_	_	_	_	14.2	0.00	14.2	1.42	0.00		49.6
Health Club	_	_	_	_	_	_	_	_	_	_	_	28.8	0.00	28.8	2.88	0.00	_	101
Place of Worship	_	_	_	_	_	_	_	_	_	_	_	14.3	0.00	14.3	1.43	0.00	_	50.1
General Office Building	_	_	_	_	_	_	_	_	_	_	_	11.0	0.00	11.0	1.10	0.00	_	38.5
Other Non-Asph Surfaces	— alt	_	_	_	_		_	_	_	_	_	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
High Turnover (Sit Down Restaurar	— t)	_	_	_	_	_	_	_	_	_	_	226	0.00	226	22.6	0.00	_	791
Recreati onal Swimmin g Pool	_	_	_	_	_	_		_	_	_	_	1.86	0.00	1.86	0.19	0.00	_	6.51
Arena	_	_	_	_	_	_	_	_	_	_	_	0.02	0.00	0.02	< 0.005	0.00	_	0.06
Total	_	_	_	_	_	_	_	_	_	_	_	296	0.00	296	29.6	0.00	_	1,037
Daily, Winter (Max)	_	_	_	_	-	_	_	_	_	-	_	_	-	-	_	-	_	_
Hotel	_	_	_	_	_	_	_	_	_	_	_	14.2	0.00	14.2	1.42	0.00	_	49.6
Health Club	_	_	_	_	_	_	_	_	_	_	_	28.8	0.00	28.8	2.88	0.00	_	101
Place of Worship	_	_	_	_	_	_	_	_	_	_	_	14.3	0.00	14.3	1.43	0.00	_	50.1
General Office Building	_	_	_	_	_	_	_	_	_	_	_	11.0	0.00	11.0	1.10	0.00	_	38.5
Other Non-Aspha Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	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
High Turnover (Sit Down Restaurar	t)	_	_	_	_	_	_	_	_	_	_	226	0.00	226	22.6	0.00	_	791

Recreati	_	_	_	_	_	_	_	_	_	_	<u> </u>	1.86	0.00	1.86	0.19	0.00	_	6.51
onal																		
Arena	_	_	_	_	_	_	_	_	_	_	_	0.02	0.00	0.02	< 0.005	0.00	_	0.06
Total	_	_	_	_	_	_	_	_	_	_	_	296	0.00	296	29.6	0.00	_	1,037
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Hotel	_	_	_	_	_	_	_	_	_	_	_	2.34	0.00	2.34	0.23	0.00	_	8.20
Health Club	_	_	_	_	_	_	_	_	_	_	_	4.77	0.00	4.77	0.48	0.00	_	16.7
Place of Worship	_	_	_	_	_	_	_	_	_	_	_	2.37	0.00	2.37	0.24	0.00	_	8.30
General Office Building	_	_	_	_	_	_	_	_	_	_	_	1.82	0.00	1.82	0.18	0.00	_	6.37
Other Non-Aspha Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	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
High Turnover (Sit Down Restaurar	— t)	-	_	_	_	_	_	_	_	_	-	37.4	0.00	37.4	3.74	0.00	-	131
Recreati onal Swimmin g Pool	_	_	_	_	_	_	_	_	_	_	_	0.31	0.00	0.31	0.03	0.00	_	1.08
Arena	_	_	_	_	_	_	_	_	_	_	_	< 0.005	0.00	< 0.005	< 0.005	0.00	_	0.01
Total	_	_	_	_	_	_	_	_	_	_	_	49.1	0.00	49.1	4.90	0.00	_	172

# 4.6. Refrigerant Emissions by Land Use

### 4.6.1. Unmitigated

Land	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	СО2Т	CH4	N2O	R	CO2e
Use																		
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Hotel	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	214	214
Health Club	_	_	_	_	_	_	_	-	_	_	_	_	_	_	_	_	0.05	0.05
Place of Worship	_	_	_	_	_	_	_	-	_	_	_	_	_	_	_	_	0.02	0.02
General Office Building	_	_	_	-	_	_	_	_	_	_	_	_	_	-	-	_	0.05	0.05
High Turnover (Sit Down Restaurar		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	55.1	55.1
Recreati onal Swimmin g Pool	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	< 0.005	< 0.005
Arena	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.01	0.01
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	269	269
Daily, Winter (Max)	_	_	_	-	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Hotel	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	214	214
Health Club	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.05	0.05
Place of Worship	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02

General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.05	0.05
High Turnover (Sit Down Restaurar	— t)	_	_	_	_	_	_	_	_		_	_	_	_	_	_	55.1	55.1
Recreati onal Swimmin g Pool	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	< 0.005	< 0.005
Arena	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.01	0.01
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	269	269
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Hotel	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	35.4	35.4
Health Club	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.01	0.01
Place of Worship	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	< 0.005	< 0.005
General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.01	0.01
High Turnover (Sit Down Restaurar	t)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	9.13	9.13
Recreati onal Swimmin g Pool	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	< 0.005	< 0.005
Arena	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	< 0.005	< 0.005
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	44.6	44.6

### 4.6.2. Mitigated

Land	TOG	ROG	NOx	СО	SO2	nual) and	PM10D	PM10T	PM2.5E		PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Jse																		
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Hotel	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	214	214
Health Club	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.05	0.05
Place of Worship	_	_	_	_	_	_	-	_	-	_	_	_	-	_	_	_	0.02	0.02
General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.05	0.05
High Turnover (Sit Down Restaurar		_	_	_	_	-	_	-	_	_	_	_	_	_	-	_	55.1	55.1
Recreati onal Swimmin g Pool	_	_	_	_	_	_	-	_	_	_	_	_	_	_	_	-	< 0.005	< 0.005
Arena	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.01	0.01
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	269	269
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Hotel	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	214	214
Health Club	_	_	_	_	-	_	_	_	_	_	-	_	_	_	_	_	0.05	0.05
Place of Worship	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02

General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.05	0.05
High Turnover (Sit Down Restaurar	— t)	_	_	_	_	_	_	_	_		_	_	_	_	_	_	55.1	55.1
Recreati onal Swimmin g Pool	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	< 0.005	< 0.005
Arena	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.01	0.01
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	269	269
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Hotel	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	35.4	35.4
Health Club	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.01	0.01
Place of Worship	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	< 0.005	< 0.005
General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.01	0.01
High Turnover (Sit Down Restaurar	t)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	9.13	9.13
Recreati onal Swimmin g Pool	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	< 0.005	< 0.005
Arena	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	< 0.005	< 0.005
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	44.6	44.6

### 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)

Equipme nt Type	TOG	ROG	NOx	со	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

Equipme nt Type	TOG	ROG		со	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)

Equipme nt Type						PM10E			PM2.5E			BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

#### 4.8.2. Mitigated

Equipme nt Type	TOG	ROG	NOx	со	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)

Equipme nt Type						PM10E				PM2.5D		BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

#### 4.9.2. Mitigated

Equipme	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
nt																		
Туре																		

Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	<u> </u>	_	<u> </u>	_	_	_	_	_	_	_	_	_
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 n	TOG	ROG	NOx	со	SO2	PM10E		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

Land Use	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	СО2Т	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total		_	_	_	_	_	<u> </u>	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

# 4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

				iy, tori/yr														
Species	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequest ered	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Remove d	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	-	-	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_		_	_	_	_	_
Sequest ered	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Remove d	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequest ered	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	<u> </u>	_	<u> </u>	_	_	_
Remove d	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

### 4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

						acily cirror	· ·											
Vegetatio	IOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM101	PM2.5E	PM2.5D	PM2.51	BCO2	NBCO2	CO21	CH4	N2O	R	CO2e
n																		
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	<u> </u>	_	_	_	_	<u> </u>	_	_	_	_
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	со	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

Species	TOG	ROG		СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequest ered	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Remove	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	<u> </u>	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided			_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequest ered	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Remove d	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequest ered	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Remove d	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
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	6/2/2025	8/29/2025	5.00	65.0	_
Site Preparation	Site Preparation	6/2/2025	8/29/2025	5.00	65.0	_
Grading	Grading	6/2/2025	7/31/2025	5.00	44.0	_
Building Construction	Building Construction	6/2/2025	6/30/2027	5.00	543	_
Paving	Paving	6/2/2025	6/30/2027	5.00	543	_
Architectural Coating	Architectural Coating	6/2/2025	6/30/2027	5.00	543	_

# 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	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backh oes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backh oes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
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	Cranes	Diesel	Average	1.00	7.00	367	0.29

<b>Building Construction</b>	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backh oes	Diesel	Average	3.00	7.00	84.0	0.37
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	Rubber Tired Dozers	Diesel	Tier 4 Final	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Tier 4 Final	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backh oes	Diesel	Tier 4 Final	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backh oes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Tier 4 Final	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Tier 4 Final	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backh oes	Diesel	Tier 4 Final	3.00	7.00	84.0	0.37

Paving	Pavers	Diesel	Tier 4 Final	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	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	0.00	20.0	HHDT
Demolition	Onsite truck	_	_	HHDT
Site Preparation	_	_	_	_
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	_	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	_	_	HHDT
Grading	_	_	_	_
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	_	10.2	HHDT,MHDT
Grading	Hauling	447	20.0	HHDT
Grading	Onsite truck	_	_	HHDT
Building Construction	_	_	_	_
Building Construction	Worker	86.0	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	34.4	10.2	HHDT,MHDT

Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	_	_	HHDT
	Choice track			
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	17.2	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	0.00	20.0	HHDT
Demolition	Onsite truck	_	_	HHDT
Site Preparation	_	_	_	_
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	_	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	_	_	HHDT
Grading	_	_	_	_
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2

Grading	Vendor	_	10.2	HHDT,MHDT
Grading	Hauling	447	20.0	HHDT
Grading	Onsite truck	_	_	HHDT
Building Construction	_	_	_	_
Building Construction	Worker	86.0	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	34.4	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	17.2	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

Non-applicable. No control strategies activated by user.

# 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	314,039	104,680	19,282

# 5.6. Dust Mitigation

### 5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	_	_
Site Preparation	_	_	97.5	0.00	_
Grading	_	157,414	132	0.00	_
Paving	0.00	0.00	0.00	0.00	7.38

### 5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

# 5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Hotel	0.00	0%
Health Club	0.00	0%
Place of Worship	0.00	0%
General Office Building	0.00	0%
Other Non-Asphalt Surfaces	2.43	0%
Other Asphalt Surfaces	4.95	100%
High Turnover (Sit Down Restaurant)	0.00	0%
Recreational Swimming Pool	0.00	0%
Arena	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

2025	0.00	532	0.03	< 0.005
2026	0.00	532	0.03	< 0.005
2027	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
Hotel	100	100	100	36,500	3,618	3,618	3,618	1,320,729
Health Club	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Place of Worship	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	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
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arena	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

# 5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Hotel	100	100	100	36,500	3,618	3,618	3,618	1,320,729
Health Club	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Place of Worship	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

General Office Building	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
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Recreational Swimming Pool	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arena	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

5.10.1.2. 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	314,039	104,680	19,282

### 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)
Hotel	2,185,629	346	0.0330	0.0040	4,091,242
Health Club	89,416	346	0.0330	0.0040	402,057
Place of Worship	44,465	346	0.0330	0.0040	199,935
General Office Building	382,894	346	0.0330	0.0040	602,034
Other Non-Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00
High Turnover (Sit Down Restaurant)	1,236,591	346	0.0330	0.0040	4,029,648
Recreational Swimming Pool	0.00	346	0.0330	0.0040	0.00
Arena	10,987	346	0.0330	0.0040	49,405

### 5.11.2. Mitigated

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

Electricity (NTTIN) is and electricated that the area realization of the electricity (NET electricity).					
Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Hotel	2,185,629	346	0.0330	0.0040	4,091,242
Health Club	89,416	346	0.0330	0.0040	402,057
Place of Worship	44,465	346	0.0330	0.0040	199,935

General Office Building	382,894	346	0.0330	0.0040	602,034
Other Non-Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00
High Turnover (Sit Down Restaurant)	1,236,591	346	0.0330	0.0040	4,029,648
Recreational Swimming Pool	0.00	346	0.0330	0.0040	0.00
Arena	10,987	346	0.0330	0.0040	49,405

# 5.12. Operational Water and Wastewater Consumption

# 5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Hotel	1,217,605	0.00
Health Club	554,467	0.00
Place of Worship	145,869	0.00
General Office Building	3,899,478	0.00
Other Non-Asphalt Surfaces	0.00	0.00
Other Asphalt Surfaces	0.00	0.00
High Turnover (Sit Down Restaurant)	10,703,813	0.00
Recreational Swimming Pool	35,841	0.00
Arena	496,247	0.00

# 5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)	
Hotel	1,217,605	0.00	
Health Club	554,467	0.00	
Place of Worship	145,869	0.00	

General Office Building	3,899,478	0.00
Other Non-Asphalt Surfaces	0.00	0.00
Other Asphalt Surfaces	0.00	0.00
High Turnover (Sit Down Restaurant)	10,703,813	0.00
Recreational Swimming Pool	35,841	0.00
Arena	496,247	0.00

# 5.13. Operational Waste Generation

# 5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Hotel	26.3	_
Health Club	53.4	_
Place of Worship	26.6	_
General Office Building	20.4	_
Other Non-Asphalt Surfaces	0.00	_
Other Asphalt Surfaces	0.00	_
High Turnover (Sit Down Restaurant)	420	_
Recreational Swimming Pool	3.45	_
Arena	0.03	_

# 5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Hotel	26.3	_
Health Club	53.4	_
Place of Worship	26.6	_
General Office Building	20.4	_

Other Non-Asphalt Surfaces	0.00	_
Other Asphalt Surfaces	0.00	_
High Turnover (Sit Down Restaurant)	420	_
Recreational Swimming Pool	3.45	_
Arena	0.03	_

# 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
Hotel	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Hotel	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Hotel	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Health Club	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Health Club	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Place of Worship	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Place of Worship	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Place of Worship	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Place of Worship	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00

General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
High Turnover (Sit Down Restaurant)	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
High Turnover (Sit Down Restaurant)	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
High Turnover (Sit Down Restaurant)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Recreational Swimming Pool	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Recreational Swimming Pool	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Arena	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Arena	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Arena	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

# 5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Hotel	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Hotel	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Hotel	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Health Club	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

	1		1	1		1
Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
	refrigerators and freezers  Household refrigerators and/or freezers  Other commercial A/C and heat pumps  Stand-alone retail refrigerators and freezers  Walk-in refrigerators and freezers  Household refrigerators and/or freezers  Other commercial A/C and heat pumps  Household refrigerators and/or freezers  Other commercial A/C and heat pumps  Walk-in refrigerators and freezers  Other commercial A/C and heat pumps  Stand-alone retail refrigerators and freezers  Other commercial A/C and heat pumps  Stand-alone retail refrigerators and freezers  Walk-in refrigerators and freezers  Walk-in refrigerators and freezers	refrigerators and freezers  Household refrigerators and/or freezers  Other commercial A/C and heat pumps  Stand-alone retail refrigerators and freezers  Walk-in refrigerators and freezers  Household refrigerators and/or freezers  Other commercial A/C and heat pumps  Household refrigerators and/or freezers  Other commercial A/C and heat pumps  Household refrigerators and/or freezers  Other commercial A/C and heat pumps  Walk-in refrigerators and freezers  Other commercial A/C and heat pumps  Stand-alone retail refrigerators and freezers  Other commercial A/C and heat pumps  Stand-alone retail refrigerators and freezers  Other commercial A/C and heat pumps  Stand-alone retail refrigerators and freezers  Other commercial A/C and heat pumps  Stand-alone retail R-134a  R-410A  R-410A  R-410A  R-410A	refrigerators and freezers  Household refrigerators and/or freezers  Other commercial A/C and heat pumps  Stand-alone retail refrigerators and freezers  Walk-in refrigerators and freezers  Household refrigerators and freezers  Household refrigerators and/or freezers  Other commercial A/C and heat pumps  Other commercial A/C and heat pumps  Household refrigerators and/or freezers  Other commercial A/C and heat pumps  Walk-in refrigerators and freezers  Other commercial A/C and heat pumps  Walk-in refrigerators and freezers  Other commercial A/C and heat pumps  Stand-alone retail refrigerators and freezers  Other commercial A/C and heat pumps  Stand-alone retail refrigerators and freezers  Other commercial A/C and heat pumps  Stand-alone retail refrigerators and freezers  Other commercial A/C and heat pumps  Stand-alone retail refrigerators and freezers  Other commercial A/C and heat pumps  Stand-alone retail refrigerators and freezers  Other commercial A/C and heat pumps  Stand-alone retail refrigerators and freezers  Other commercial A/C and heat pumps  Stand-alone retail refrigerators and freezers  Walk-in refrigerators R-404A 3,922	refrigerators and freezers  Household refrigerators and/or freezers  Cher commercial A/C and heat pumps  Stand-alone retail refrigerators and freezers  Walk-in refrigerators and freezers  R-404A 3,922 < 0.005  Walk-in refrigerators and/or freezers  R-404A 3,922 < 0.005  R-410A 2,088 < 0.005  A,005  R-410A 2,088 < 0.005  R-410A 2,088 < 0.005  R-410A 2,088	refrigerators and freezers  R-134a	refrigerators and freezers  R-134a

# 5.15. Operational Off-Road Equipment

### 5.15.1. Unmitigated

### 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

Fauinment Time	Fuel Type	Number per Day	Hours per Doy	Hours per Voor	Haraanawar	Load Factor
Equipment Type	Fuel lype	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)
11.1	71.7		J		1

### 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 Final 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	29.8	annual days of extreme heat

Extreme Precipitation	13.3	annual days with precipitation above 20 mm
Sea Level Rise	_	meters of inundation depth
Wildfire	30.1	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 3/4 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, 1.41 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	4	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	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	0	0	0	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	4	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
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	1	1	1	2

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	99.1
AQ-PM	15.3
AQ-DPM	2.59
Drinking Water	42.0
Lead Risk Housing	36.7
Pesticides	0.00

Tavia Dalagasa	25.0
Toxic Releases	35.8
Traffic	3.75
Effect Indicators	_
CleanUp Sites	5.64
Groundwater	35.0
Haz Waste Facilities/Generators	0.00
Impaired Water Bodies	58.7
Solid Waste	87.2
Sensitive Population	_
Asthma	45.6
Cardio-vascular	75.6
Low Birth Weights	10.6
Socioeconomic Factor Indicators	_
Education	15.8
Housing	72.6
Linguistic	_
Poverty	53.9
Unemployment	_

# 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	42.38419094
Employed	31.70794303
Median HI	23.4826126
Education	_

Bachelor's or higher	43.17977672
High school enrollment	100
Preschool enrollment	60.00256641
Transportation	_
Auto Access	40.33106634
Active commuting	1.039394328
Social	_
2-parent households	59.01450019
Voting	84.80687797
Neighborhood	_
Alcohol availability	79.49441807
Park access	81.35506224
Retail density	0.757089696
Supermarket access	2.399589375
Tree canopy	94.6875401
Housing	_
Homeownership	69.85756448
Housing habitability	33.99204414
Low-inc homeowner severe housing cost burden	18.91441037
Low-inc renter severe housing cost burden	42.409855
Uncrowded housing	86.21840113
Health Outcomes	_
Insured adults	85.29449506
Arthritis	0.0
Asthma ER Admissions	72.4
High Blood Pressure	0.0
Cancer (excluding skin)	0.0

Coronary Heart Disease         0.0           Chronic Obstructive Pulmonary Disease         0.0           Diagnosed Diabetes         0.0           Cognitively Disabled         57.5           Cognitively Disabled         35.0           Physically Disabled         41.1           Heart Altack ER Admissions         74.1           Mental Health Not Good         0.0           Chronic Kidney Disease         0.0           Obesity         0.0           Pedestrian Injuries         77.9           Physical Health Not Good         0.0           Stroke         0.0           Health Risk Behaviors         0.0           Binge Drinking         0.0           Current Smoker         0.0           No Leisure Time for Physical Activity         0.0           Climate Change Exposures         9.4           Wildfire Risk         95.4           SLR Inundation Area         0.0
Diagnosed Diabetes         0.0           Life Expectancy at Birth         57.5           Cognitively Disabled         35.0           Physically Disabled         41.1           Heart Attack ER Admissions         74.1           Mental Health Not Good         0.0           Chronic Kidney Disease         0.0           Obesity         0.0           Pedestrian Injuries         77.9           Physical Health Not Good         0.0           Stroke         0.0           Health Risk Behaviors         —           Binge Drinking         0.0           Current Smoker         0.0           No Leisure Time for Physical Activity         0.0           Climate Change Exposures         —           Wildfire Risk         95.4
Life Expectancy at Birth       57.5         Cognitively Disabled       35.0         Physically Disabled       41.1         Heart Attack ER Admissions       74.1         Mental Health Not Good       0.0         Chronic Kidney Disease       0.0         Obesity       0.0         Pedestrian Injuries       77.9         Physical Health Not Good       0.0         Stroke       0.0         Health Risk Behaviors       —         Binge Drinking       0.0         Current Smoker       0.0         No Leisure Time for Physical Activity       0.0         Climate Change Exposures       —         Wildfire Risk       95.4
Cognitively Disabled         35.0           Physically Disabled         41.1           Heart Attack ER Admissions         74.1           Mental Health Not Good         0.0           Chronic Kidney Disease         0.0           Obesity         0.0           Pedestrian Injuries         77.9           Physical Health Not Good         0.0           Stroke         0.0           Health Risk Behaviors         —           Binge Drinking         0.0           Current Smoker         0.0           No Leisure Time for Physical Activity         0.0           Climate Change Exposures         —           Wildfire Risk         95.4
Physically Disabled         41.1           Heart Attack ER Admissions         74.1           Mental Health Not Good         0.0           Chronic Kidney Disease         0.0           Obesity         0.0           Pedestrian Injuries         77.9           Physical Health Not Good         0.0           Stroke         0.0           Health Risk Behaviors         -           Binge Drinking         0.0           Current Smoker         0.0           No Leisure Time for Physical Activity         0.0           Climate Change Exposures         -           Wildfire Risk         95.4
Heart Attack ER Admissions         74.1           Mental Health Not Good         0.0           Chronic Kidney Disease         0.0           Obesity         0.0           Pedestrian Injuries         77.9           Physical Health Not Good         0.0           Stroke         0.0           Health Risk Behaviors         —           Binge Drinking         0.0           Current Smoker         0.0           No Leisure Time for Physical Activity         0.0           Climate Change Exposures         —           Wildfire Risk         95.4
Mental Health Not Good         0.0           Chronic Kidney Disease         0.0           Obesity         0.0           Pedestrian Injuries         77.9           Physical Health Not Good         0.0           Stroke         0.0           Health Risk Behaviors         —           Binge Drinking         0.0           Current Smoker         0.0           No Leisure Time for Physical Activity         0.0           Climate Change Exposures         —           Wildfire Risk         95.4
Chronic Kidney Disease         0.0           Obesity         0.0           Pedestrian Injuries         77.9           Physical Health Not Good         0.0           Stroke         0.0           Health Risk Behaviors         —           Binge Drinking         0.0           Current Smoker         0.0           No Leisure Time for Physical Activity         0.0           Climate Change Exposures         —           Wildfire Risk         95.4
Obesity         0.0           Pedestrian Injuries         77.9           Physical Health Not Good         0.0           Stroke         0.0           Health Risk Behaviors         —           Binge Drinking         0.0           Current Smoker         0.0           No Leisure Time for Physical Activity         0.0           Climate Change Exposures         —           Wildfire Risk         95.4
Pedestrian Injuries 77.9  Physical Health Not Good 0.0  Stroke 0.0  Health Risk Behaviors —  Binge Drinking 0.0  Current Smoker 0.0  No Leisure Time for Physical Activity 0.0  Climate Change Exposures —  Wildfire Risk 95.4
Physical Health Not Good  Stroke  0.0  Health Risk Behaviors  —  Binge Drinking  0.0  Current Smoker  0.0  No Leisure Time for Physical Activity  0.0  Climate Change Exposures  Wildfire Risk  95.4
Stroke 0.0 Health Risk Behaviors — Binge Drinking 0.0 Current Smoker 0.0 No Leisure Time for Physical Activity 0.0 Climate Change Exposures — Wildfire Risk 95.4
Health Risk Behaviors  Binge Drinking  Current Smoker  0.0  No Leisure Time for Physical Activity  0.0  Climate Change Exposures  Wildfire Risk  95.4
Binge Drinking 0.0  Current Smoker 0.0  No Leisure Time for Physical Activity 0.0  Climate Change Exposures  Wildfire Risk 95.4
Current Smoker 0.0  No Leisure Time for Physical Activity 0.0  Climate Change Exposures —  Wildfire Risk 95.4
No Leisure Time for Physical Activity  Climate Change Exposures  Wildfire Risk  0.0  95.4
Climate Change Exposures — Wildfire Risk 95.4
Wildfire Risk 95.4
SLR Inundation Area 0.0
Children 3.5
Elderly 53.1
English Speaking 84.3
Foreign-born 0.6
Outdoor Workers 23.8
Climate Change Adaptive Capacity —

Impervious Surface Cover	92.5
Traffic Density	7.9
Traffic Access	23.0
Other Indices	_
Hardship	40.2
Other Decision Support	_
2016 Voting	86.2

### 7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	34.0
Healthy Places Index Score for Project Location (b)	48.0
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.

### 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

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.

Characteristics: Project Details	changed locational context from NA to Rural
Land Use	Land uses entered to match project description, hotel rooms = dorm buildings
Construction: Construction Phases	Construction phases updated to match applicant construction schedule
Operations: Vehicle Data	Updated vehicle trip data to match traffic study, 7-day average ADT: employee trips 50 per day, bus trips with 50 student campers per bus = 29, adults 21 trips per day. total ADT =100