APPENDIX B:

AIR QUALITY ASSESSMENT

Air Quality Assessment

Riverside Community Hospital Parking Structure

Prepared for:

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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
CalEEMod	California Emissions Estimator Model
CEC	California Energy Commission
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
$\mu g/m^3$	Micrograms per cubic meter
mg/m^3	Milligrams per cubic meter
NAAQS	National Ambient Air Quality Standards
NO_2	Nitrogen dioxide
NO_x	Nitrogen oxide
O_3	Ozone
PM_{10}	Particulate matter less than 10 microns in diameter
$PM_{2.5}$	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_{4-2}	Sulfates
SO_2	Sulfur dioxide
TAC	Toxic air contaminant
U.S. EPA	U.S. Environmental Protection Agency
C_2H_3Cl	Vinyl chloride
VOC	Volatile organic compound

1.0 INTRODUCTION

This report documents the results of an Air Quality Assessment completed for the Riverside Community Hospital Parking Structure Project ("Project" or "proposed Project"). An Environmental Impact Report (EIR) was prepared for the Riverside Community Hospital Expansion Project. The construction of new parking structures was contemplated as future discretionary projects for Phase IIc within the *Riverside Community Hospital Specific Plan Expansion Project Final EIR* (2014 Final EIR). The construction of the Project has been proposed as part of Phase IIb. This comparative analysis has been undertaken to analyze whether the proposed Project would result in any new or substantially more severe significant environmental impacts as compared to the conclusions discussed in the certified 2014 Final EIR. In addition, this air quality technical report evaluates the potential emissions associated with the Project pursuant to 2014 Final EIR Mitigation Measure (MM) AQ-2.

1.1 Project Background

The Riverside Community Hospital Specific Plan (RCHSP) was adopted (Resolution No. 26690), and the 2014 Final EIR was certified by the Riverside City Council in May 2014 (Resolution No. 22689). The 2014 Final EIR was previously prepared to evaluate the potential environmental impacts associated with the RCHSP, which provides a roadmap to guide future expansion plans and address compliance with the Alfred E. Alquist Hospital Seismic Safety Act (Alquist Act) of 1973, Senate Bill (SB) 1953. The RCHSP includes a two-phased campus master plan for the future expansion of RCH on approximately 22.5 acres over a 30-year period. The primary focus of Phase I is to construct a new hospital bed tower to alleviate seismic concerns associated with existing buildings and to meet seismic retrofit requirements as required by SB 1953. Phase II also addresses seismic concerns and includes potential future long-range development broken down into Phase IIA, Phase IIB, and Phase IIC.

As described in the 2014 Final EIR, Phase I would involve the construction of a new 251,000-square-foot, seven-story hospital bed tower. Phase IIA would entail the demolition of Building A to allow the construction of an approximately 100,000-square-foot mixed-use building and additional surface or structure parking. Phase IIB would consist the demolition of two parking structures to allow for the construction of a second new, estimated nine-story, 600,000+ square foot replacement bed tower. Phase IIB also includes additional convenience parking during this phase. The final phase of long-range improvements planned for 2030 or later would involve the addition of 38 licensed beds, to take the campus-wide total to 600 licensed beds (this could occur in Phase IIB if need is demonstrated prior to 2030), construction of ancillary services as necessary, and construction of surface or structured parking as needed to support growth.

The Approved Project would increase patient and support services, add several new buildings, renovate and demolish a number of existing buildings or structures onsite. One or two standalone parking structures may also be included in the master planned changes to the site. These and other possible changes on the site would be phased over a period of many years as funding becomes available and services are needed. The hospital may expand services into the community and may add new services as medical practices change over time and needs arise.

The discussion in the 2014 Final EIR noted that the phasing plan proposed was only an estimate

based on plans and conditions at that time. It was identified that many factors would affect the timing and funding of the planned improvements, so the indicated phasing was merely suggestive of what may occur in the future, but the actual phasing and locations of the various improvements may occur at times different than those identified in the 2014 Final EIR, due to unanticipated delays or conditions. Some phases may even be implemented prior to previous phases.

The 2014 Final EIR was prepared to evaluate the environmental impacts of the Approved Project and address various actions by the City and other agencies to adopt and implement the Approved Project. It was the intent of the 2014Final EIR to inform the City, other agencies, and interested parties of the potential environmental impacts of the Approved Project. The Phasing Plan described in the 2014 Final EIR included the following:

- Phase I (2014 to 2017) – Completed
- Phase II, divided into three sub-phases:
    - Phase IIA (2017-2024),
    - Phase IIB (2024-2029), and
    - Phase IIC (2030-2043).

1.2 Project Location

The approximately 1.66-acre Project site (Assessor Parcel Numbers [APN] 217060024, 217060026, 217060027, 217060028, 217060020, and 217060009) is located in the City of Riverside, California. The site is approximately 0.42 miles west of State Route 91 (SR-91) and approximately 1.60 miles south of SR-60. Specifically, the Project site is located at the northwest corner of Brockton Avenue and 14th Street. Most of the Project site (APNs 217060024, 217060026, 217060027, and 217060028) is within the Riverside Community Hospital Specific Plan (RCHSP), however, two parcels (APNs 217060020 and 217060009) are within the Downtown Specific Plan. A Specific Plan Amendment is proposed to amend the RCHSP boundary to include the two parcels that are currently within the Downtown Specific Plan (i.e., APNs 217060020 and 217060009), which currently contain a vacant medical office building and auto body shop. See **Figure 1: Regional Map** and **Figure 2: Aerial of the Project Site**.

The Brockton Parking Garage Project (Project) site is currently developed with an auto body shop, Women's Services Building (Building M), Brockton Storage Building (Building L), and medical office building that are also owned by the Project Applicant. Ornamental landscaping is provided along the Project site frontage on Brockton Avenue and 14th Street, as well as throughout the Project site. Pedestrian sidewalk is provided along the Project site frontage on Brockton Avenue and 14th Street. Overhead utility lines and lighting are also provided along the Project site frontage on Brockton Avenue and 14th Street.

1.3 Project Description

Site Development

The Project would include the demolition of 61,500 square feet of existing buildings to construct a new approximately 207,780 square foot parking garage. The parking garage would accommodate 587 parking spaces within a five-level parking garage structure (four levels above ground and one level subterranean). **Figure 3: Conceptual Site Plan** depicts the proposed development. The parking garage would support RCH Campus's parking demand, compensating for the loss in parking caused by the anticipated demolition of two parking garages (Buildings I and J) as part of Tower H (Building S) construction which is estimated to start construction in September 2026. Tower H was previously analyzed in the 2014 Final EIR; therefore, the analysis is based only on the development of a parking garage.

The proposed parking garage would be designed to meet the 2022 California Building Code requirements for an "open" parking garage. Stair and elevator cores are proposed on the east side of the building, closest to the hospital. Accessible travel paths are proposed along the garage's east side, connecting the garage with the existing hospital.

Primary vehicular access to the Proposed Project site would be provided via one existing left-out restricted driveway on Brockton Avenue (Driveway 1), one proposed full-movement driveway on Brockton Avenue (Driveway 2), one proposed parking garage egress-only driveway on Brockton Avenue (Driveway 3), and one existing driveway on 14th Street with proposed left-out restricted access (Driveway 4). All driveways would be unsignalized. Parking aisles generally run east to west, with 90-degree parking on both sides and a parkable ramp at the southern bay. Electrical vehicle charging stations and bicycle parking would be located on Level 0. Accessible parking spaces would be located on Level 1 with an accessible pathway connecting the garage to the future Tower H.

1.4 Construction

Project construction is anticipated to begin in April 2025 and finish in July 2026. The Project is anticipated to require approximately 17,000 cubic yards (cy) of cut and 2,000 cy of fill, resulting in a net of 15,000 cy soil export. Construction would be in compliance with Riverside Municipal Code Section 7.35.020, which limits construction between the hours of 7:00AM and 7:00PM on weekdays and between 8:00AM and 5:00PM on Saturdays. Construction hours, allowable workdays, and the phone number of the job superintendent shall be clearly posted at all construction entrances to allow surrounding property owners and residents to contact the job superintendent.

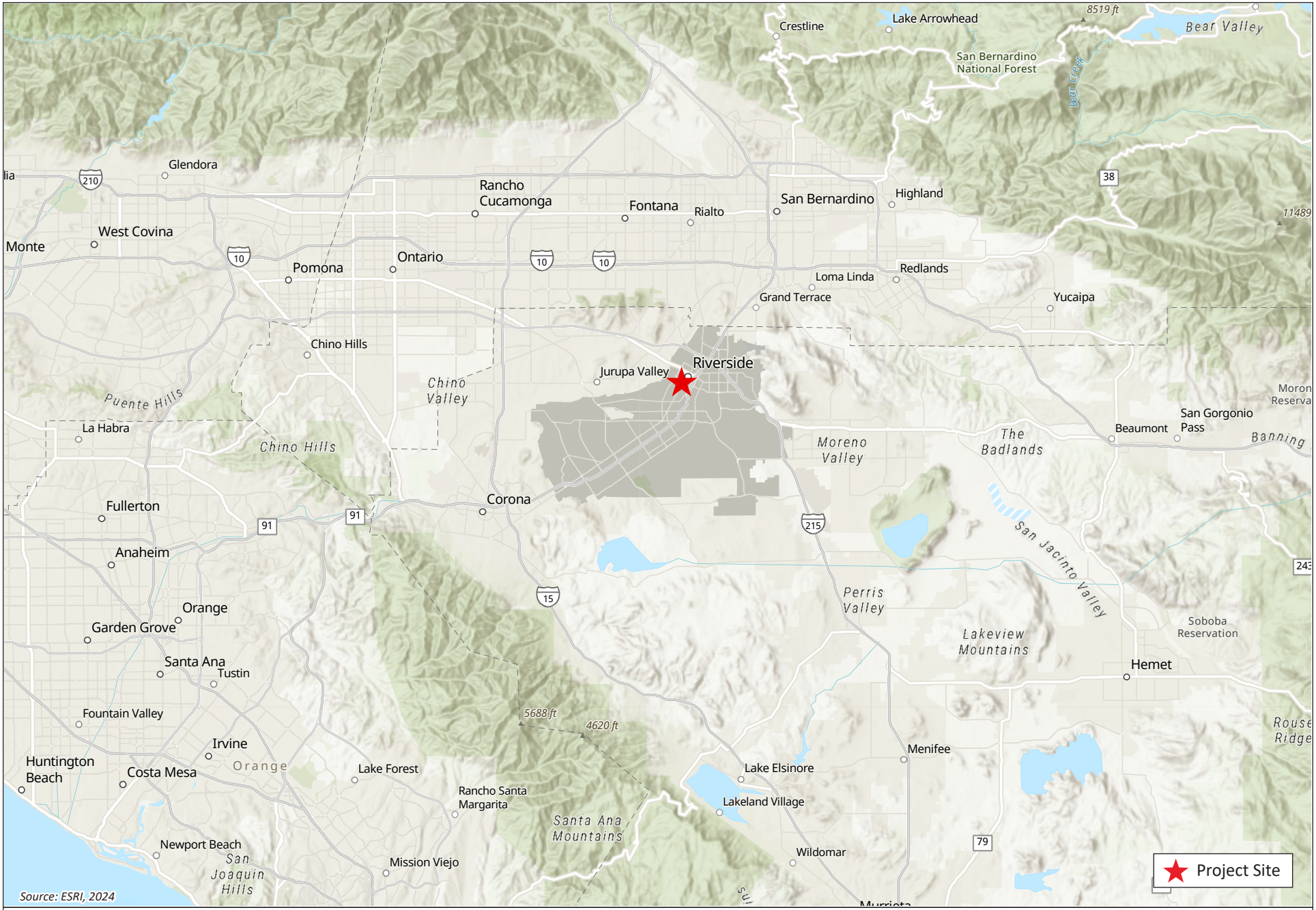

Figure 1: Regional Vicinity Map
Brockton Parking Garage Project

Not to scale.

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Figure 2: Local Vicinity Map
Brockton Parking Garage Project

Not to scale.

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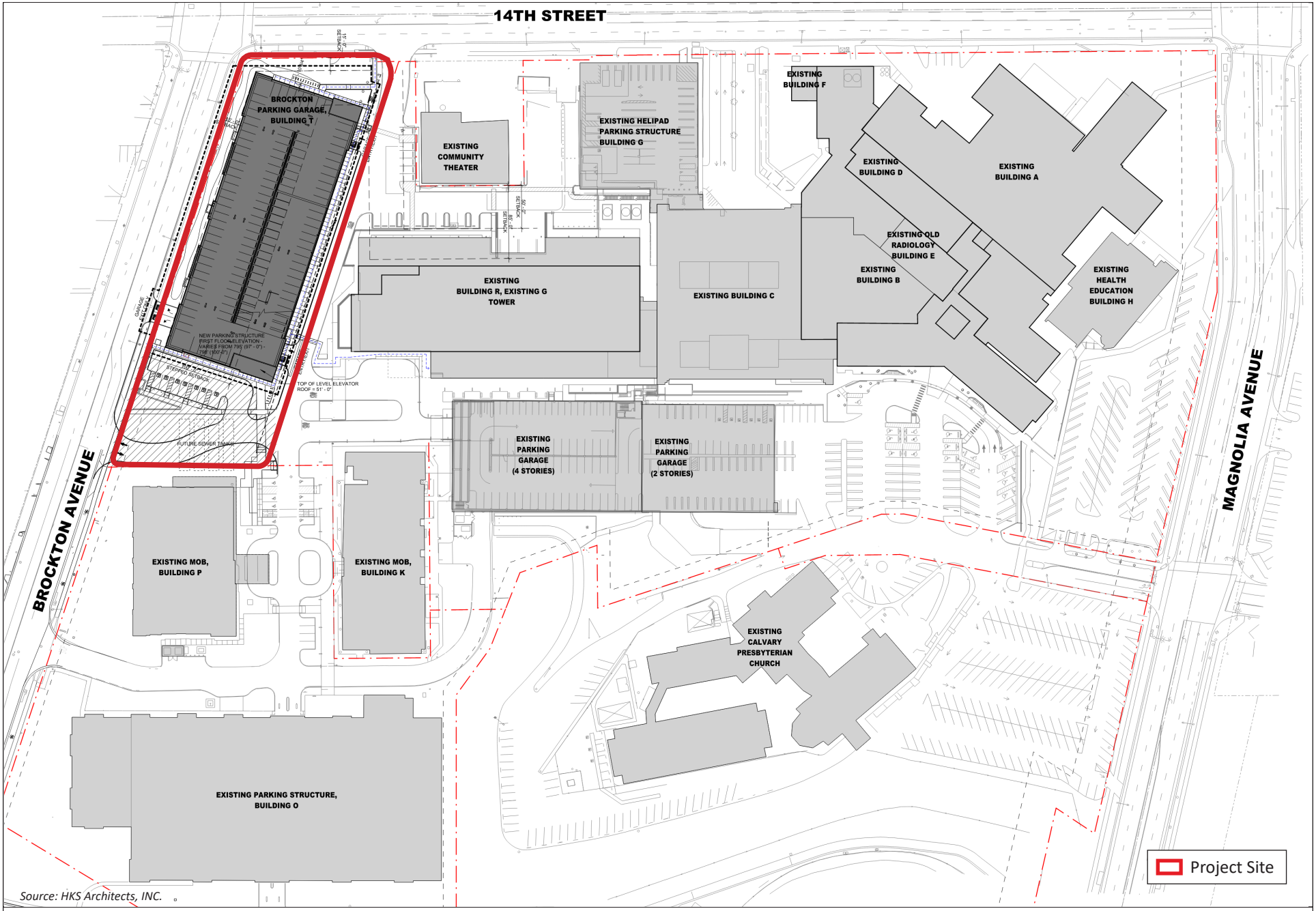

Source: HKS Architects, INC.

Figure 3: Conceptual Site Plan
Brockton Parking Garage Project

Not to scale.

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2.0 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.[1] 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.[2] Air quality in this area is determined by such natural factors 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. 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 onshore 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.[3]

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

[1] South Coast Air Quality Management District, *2022 Air Quality Management District*, 2022. Available at: https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/final-2022-aqmp/final-2022-aqmp.pdf?sfvrsn=16, accessed November 2024

[2] South Coast Air Quality Management District, *CEQA Air Quality Handbook*, 1993.

[3] California Air Resources Board, *Almanac Resources, 2024*. Available at: https://ww2.arb.ca.gov/resources/documents/almanac-resources, accessed November 2024

most of coastal Southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions.

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."[4] 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_X), sulfur dioxide (SO_2), coarse particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), and lead are primary air pollutants. Of these, CO, NO_X, SO_2, PM_{10}, and $PM_{2.5}$ are criteria pollutants.[5] ROG and NO_X are criteria pollutant precursors and form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere.[6] For example, the criteria pollutant ozone (O_3) is formed by a chemical reaction between ROG and NO_X in the presence of sunlight. O_3 and nitrogen dioxide (NO_2) 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 Effects
Particulate Matter (PM_{10} and $PM_{2.5}$)	Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning 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_3)	Formed by a chemical reaction between reactive organic gases/volatile organic compounds (ROG or VOC)[1] and nitrogen oxides (NO_X) 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_2)	A colorless gas formed when fuel containing sulfur is burned and when gasoline is extracted from oil. Examples are petroleum refineries,	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid

[4] South Coast Air Quality Management District, *Final 2016 Air Quality Management Plan,* March 2017
[5] U.S. Environmental Protection Agency, *Criteria Air Pollutants*, https://www.epa.gov/criteria-air-pollutants, accessed November 2024
[6] Ibid.

Table 1: Air Contaminants and Associated Public Health Concerns		
Pollutant	**Major Man-Made Sources**	**Human Health Effects**
	cement manufacturing, metal processing facilities, locomotives, and ships.	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_2)	A reddish-brown gas formed during fuel combustion for motor vehicles and industrial sources. Sources include motor vehicles, electric utilities, and other sources that burn fuel.	Respiratory irritant; aggravates lung and heart problems. Precursor to O_3. Contributes to global warming and nutrient overloading which deteriorates water quality. Causes 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 manufacturers.	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 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).

Sources: U.S. Environmental Protection Agency, *Criteria Air Pollutants*, https://www.epa.gov/criteria-air-pollutants, accessed November 2024

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.[7]

CARB has identified diesel particulate matter (DPM) as a toxic air contaminant. DPM differs from other TACs in that it is not a single substance, but rather a complex mixture of hundreds of

[7] California Air Resources Board, *Common Air Pollutants*, 2024. Available at: https://ww2.arb.ca.gov/resources/common-air-pollutants, accessed November 2024

substances. Diesel exhaust is a complex mixture of particles (such as DPM) and gases produced when an engine burns diesel fuel. DPM includes the particle-phase constituents in diesel exhaust. DPM is a concern because it causes lung cancer; many compounds found in diesel exhaust are carcinogenic. 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.[8]

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 levels of ambient air quality, 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.

The closest air monitoring station to the Project that monitor ambient concentrations of O_3, CO, NO_2, PM_{10} and $PM_{2.5}$ is the Rubidoux – Mission Boulevard Station (located approximately 2.5 miles to the northwest of the Project Site). Local air quality data from 2020 to 2022 (the latest currently available) 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.

Table 2: Ambient Air Quality Data

Criteria Pollutant	2021	2022	2023
Ozone (O_3)			
1-hour Maximum Concentration (ppm)	0.117	0.122	0.139
8-hour Maximum Concentration (ppm)	0.098	0.095	0.107
Number of Days Standard Exceeded			
CAAQS 1-hour (>0.09 ppm)	20	30	48
NAAQS 8-hour (>0.070 ppm)	55	70	69
Carbon Monoxide (CO)			
1-hour Maximum Concentration (ppm)	2.106	3.272	1.409
Number of Days Standard Exceeded			
NAAQS 1-hour (>35 ppm)	0	0	0
CAAQS 1-hour (>20 ppm)	0	0	0
Nitrogen Dioxide (NO_2)			
1-hour Maximum Concentration (ppm)	0.060	0.056	0.055
Number of Days Standard Exceeded			
NAAQS 1-hour (>100 ppm)	0	0	0
CAAQS 1-hour (>0.18 ppm)	0	0	0
Particulate Matter Less Than 10 Microns (PM_{10})			
National 24-hour Maximum Concentration	76.5	153.6	166.5

[8] California Air Resources Board, *Overview: Diesel Exhaust & Health*, https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health, accessed November 2024

Table 2: Ambient Air Quality Data			
Criteria Pollutant	**2021**	**2022**	**2023**
State 24-hour Maximum Concentration	114.3	61.9	95.1
State Annual Average Concentration (CAAQS=20 µg/m^3)	33.2	30.0	*
Number of Days Standard Exceeded			
NAAQS 24-hour (>150 µg/m^3)	0	0	1.0
CAAQS 24-hour (>50 µg/m^3)	43.7	11.8	*
Particulate Matter Less Than 2.5 Microns ($PM_{2.5}$)			
National 24-hour Maximum Concentration	82.1	38.5	74.3
State 24-hour Maximum Concentration	82.1	38.5	74.4
Number of Days Standard Exceeded			
NAAQS 24-hour (>35 µg/m^3)	11.0	1.0	2.1
NAAQS = National Ambient Air Quality Standards; CAAQS = California Ambient Air Quality Standards; ppm = parts per million; µg/m^3 = micrograms per cubic meter; – = not measured; * insufficient (or no) data available to determine the value Measurements taken at the Rubidoux – Mission Boulevard Monitoring Station at 5888 Mission Blvd, California 92509 (CARB #33144).			
Source: All pollutant measurements are from the CARB Aerometric Data Analysis and Management system database (https://www.arb.ca.gov/adam) except for CO and NO_2, which were retrieved from the CARB Air Quality and Meteorological Information System (https://www.arb.ca.gov/aqmis2/aqdselect.php).			

2.3 Sensitive Receptors

Sensitive populations are more susceptible to the effects of air pollution than is the general population. Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. Sensitive uses include residences, schools, playgrounds, childcare centers, long-term health facilities, rehabilitation centers, convalescent centers, and retirement homes.[9] Sensitive land uses nearest to the Project are listed in Table 3: Sensitive Receptors.

Table 3: Sensitive Receptors		
Receptor Description[1]	**Distance[2] and Direction from the RCHSP Area**	**Distance[3] from the Project**
1 – Calvary Presbyterian Church	60 feet to the south	480 feet
2 – Riverside Community Players[4]	65 feet to the east	65 feet
3 – Newman Park	630 feet to the northeast	1,090 feet
4 – Evans Sports Complex	450 feet to the south	640 feet
5 – Nearest Residence along 14th Street	225 feet to the northwest	225 feet
6 – Grant Elementary School	75 feet to the north	75 feet
7 – Daycare on Magnolia Avenue and 15th Street	560 feet to the southeast	1,100 feet
Source: Google Earth, 2024 1. Sensitive receptor locations are the same as those identified in the 2014 Final EIR for the Riverside Community Hospital Expansion Project. 2. Distance measured from the RCHSP boundary to the nearest receptor. 3. Distance measured from the proposed construction area to the nearest receptor. 4. This use is not considered a sensitive use with regard to air quality emissions but has been listed to remain consistent with the noise analysis.		

[9] Dudek, Draft Environmental Impact Report for the Riverside Community Hospital Expansion Project, February 2014

3.0 REGULATORY SETTING

3.1 Federal

Federal Clean Air Act

Air quality is federally protected by the Federal Clean Air Act (FCAA; 42 U.S.C. §§ 7401 et seq.) 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_3, NO_2, CO, SO_2, PM_{10}, $PM_{2.5}$, 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 to demonstrate how it will 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. The U.S. EPA has designated enforcement of air pollution control regulations to the individual states. Applicable federal standards are summarized in Table 4: 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 4, 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.[10]

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 the CAAQS. These AQMPs also serve as the basis for the preparation of the State Implementation Plan for meeting the federal clean air standards for the State of California.[11] 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

[10] California Air Resources Board, *California Ambient Air Quality Standards*, https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards, accessed November 2024

[11] South Coast Air Quality Management District, *Final 2016 Air Quality Management Plan*, March 2017. https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf?sfvrsn=15, accessed November 2024

in Table 4.

Table 4: State and Federal Ambient Air Quality Standards

Pollutant	Averaging Time	State Standards[1]	Federal Standards[2]
Ozone (O_3) [2, 5, 7]	8 Hour	0.070 ppm (137 µg/m^3)	0.070 ppm
	1 Hour	0.09 ppm (180 µg/m^3)	NA
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)
	1 Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)
Nitrogen Dioxide (NO_2)	1 Hour	0.18 ppm (339 µg/m^3)	0.10 ppm[11]
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)
Sulfur Dioxide (SO_2) [8]	24 Hour	0.04 ppm (105 µg/m^3)	0.14 ppm (365 µg/m^3)
	1 Hour	0.25 ppm (655 µg/m^3)	0.075 ppm (196 µg/m^3)
	Annual Arithmetic Mean	NA	0.03 ppm (80 µg/m^3)
Particulate Matter (PM_{10}) [1, 3, 6]	24-Hour	50 µg/m^3	150 µg/m^3
	Annual Arithmetic Mean	20 µg/m^3	NA
Fine Particulate Matter ($PM_{2.5}$) [3, 4, 6, 9]	24-Hour	NA	35 µg/m^3
	Annual Arithmetic Mean	12 µg/m^3	9 µg/m^3
Sulfates (SO_{4-2})	24 Hour	25 µg/m^3	NA
Lead (Pb) [10, 11]	30-Day Average	1.5 µg/m^3	NA
	Calendar Quarter	NA	1.5 µg/m^3
	Rolling 3-Month Average	NA	0.15 µg/m^3
Hydrogen Sulfide (H_2S)	1 Hour	0.03 ppm (42 µg/m^3)	NA
Vinyl Chloride (C_2H_3Cl) [10]	24 Hour	0.01 ppm (26 µg/m^3)	NA

ppm = parts per million; µg/m^3 = micrograms per cubic meter; mg/m^3 = milligrams per cubic meter; – = no information available.

[1] California standards for O_3, carbon monoxide (except Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, suspended particulate matter - PM_{10}, 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_{10} 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.

[2] National standards shown are the "primary standards" designed to protect public health. National standards other than for O_3, particulates and those based on annual averages are not to be exceeded more than once a year. The 1-hour O_3 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_3 standard is attained when the 3-year average of the 4th highest daily concentrations is 0.070 ppm or less. The 24-hour PM_{10} standard is attained when the 3-year average of the 99th percentile of monitored concentrations is less than 150 µg/m$_3$. The 24-hour $PM_{2.5}$ standard is attained when the 3-year average of 98th percentiles is less than 35 µg/m^3.

[3] 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_{10} is met if the 3-year average falls below the standard at every site. The annual $PM_{2.5}$ standard is met if the 3-year average of annual averages spatially-averaged across officially designed clusters of sites falls below the standard.

[4] On October 1, 2015, the national 8-hour O_3 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 O_3 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 O_3 level in the area.

[5] The national 1-hour O_3 standard was revoked by the U.S. EPA on June 15, 2005.

[6] In June 2002, CARB established new annual standards for $PM_{2.5}$ and PM_{10}.

[7] The 8-hour California O_3 standard was approved by the CARB on April 28, 2005 and became effective on May 17, 2006.

[8] On June 2, 2010, the U.S. EPA established a new 1-hour SO_2 standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. The existing 0.030 ppm annual and 0.14 ppm 24-hour SO_2 NAAQS however must continue to be used until one year following U.S. EPA initial designations of the new 1-hour SO_2 NAAQS.

[9] In February 2024, U.S. EPA strengthened the annual $PM_{2.5}$ NAAQS from 12.0 to 9.0 µg/m^3. 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 May 6, 2024.

[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 standard, 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*, May 6, 2016, and U.S. Environmental Protection Agency, *NAAQS Tables*, 2024, available at: https://www.epa.gov/criteria-air-pollutants/naaqs-table

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 state and federal ambient air quality standards 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 each AQMP, with input from the Southern California Association of Governments (SCAG) and CARB. The AQMP is a comprehensive plan that includes control strategies to reduce emissions from 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, has jurisdiction over mobile sources.

The 2016 AQMP was adopted by the SCAQMD Governing Board on March 3, 2017.[12] The purpose of the 2016 AQMP is to set forth a comprehensive and integrated program that would lead the SCAB into compliance with those NAAQS for which the basin is in nonattainment (i.e., the federal 24-hour $PM_{2.5}$ air quality standard), and to provide an update to the SCAQMD's commitments towards meeting the federal 8-hour O_3 standards. The 2016 AQMP incorporated the latest scientific and technological information and planning assumptions, including the *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy* (RTP/SCS) and updated emission inventory methodologies for various source categories.[13]

On October 1, 2015, the U.S. EPA strengthened the NAAQS for ground-level O_3. The 2022 AQMP, adopted by the SCAQMD Governing Board on December 2, 2022, was developed to address the strengthened requirements for meeting the 2015 ground-level 8-hour O_3 standard.[14] The 2022 AQMP builds upon measures already in place from previous AQMPs. It also includes a variety of additional strategies such as regulation, accelerated deployment of available cleaner technologies (e.g., zero emissions technologies, when cost-effective and feasible, and low NO_X technologies in other applications), best management practices, co-benefits from existing programs (e.g., climate and energy efficiency), incentives, and other FCAA measures to achieve the 2015 8-hour ozone standard. Like earlier AQMPs, the 2022 AQMP incorporates the latest scientific and technological information and planning assumptions, including the *2020-2045* RTP/SCS and updated emission inventory

[12] South Coast Air Quality Management District, *Final 2016 Air Quality Management Plan*, March 2017. https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf?sfvrsn=15, accessed November 2024

[13] Southern California Association of Governments, *The 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy*, April 2016. https://scag.ca.gov/sites/main/files/file-attachments/f2016rtpscs.pdf?1606005557, accessed November 2024

[14] South Coast Air Quality Management District, *2022 Air Quality Management Plan*, December 2022. https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/final-2022-aqmp/final-2022-aqmp.pdf?sfvrsn=16, accessed November 2024

methodologies for various source categories.[15]

The SCAQMD has published the CEQA Air Quality Handbook (approved by the SCAQMD Governing Board in 1993 and augmented with guidance for Local Significance Thresholds [LST] in 2008).[16] The SCAQMD guidance helps local government agencies and consultants to develop environmental documents required by California Environmental Quality Act (CEQA) and suggests thresholds of significance for criteria pollutants for both construction and operation (see discussion of thresholds below). With the help of SCAQMD's 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.

The 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 5: South Coast Air Basin Attainment Status. The SCAB is currently designated as a non-attainment area with respect to the State O_3, PM_{10}, and $PM_{2.5}$ standards, as well as the national 8-hour O_3 and $PM_{2.5}$ standards. The SCAB is designated as attainment or unclassified for the remaining state and federal standards.

Table 5: South Coast Air Basin Attainment Status

Pollutant	State	Federal
Ozone (O_3) (1 Hour Standard)	Non-Attainment	Non-Attainment (Extreme)
Ozone (O_3) (8 Hour Standard)	Non-Attainment	Non-Attainment (Extreme)
Particulate Matter ($PM_{2.5}$) (24 Hour Standard)	–	Non-Attainment (Serious)
Particulate Matter ($PM_{2.5}$) (Annual Standard)	Non-Attainment	Non-Attainment (Moderate)
Particulate Matter (PM_{10}) (24 Hour Standard)	Non-Attainment	Attainment (Maintenance)
Particulate Matter (PM_{10}) (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_2) (1 Hour Standard)	Attainment	Unclassifiable/Attainment
Nitrogen Dioxide (NO_2) (Annual Standard)	Attainment	Attainment (Maintenance)
Sulfur Dioxide (SO_2)	Attainment	Unclassifiable/Attainment

[15] Southern California Association of Governments, *Connect SoCal (2020 – 2045 Regional Transportation Plan/Sustainable Communities Strategy)*, September 2020. https://scag.ca.gov/read-plan-adopted-final-connect-socal-2020, accessed November 2024

[16] South Coast Air Quality Management District, *Final Localized Significance Threshold Methodology*, July 2008. https://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/localized-significance-thresholds, accessed November 2024

Table 5: South Coast Air Basin Attainment Status		
Pollutant	**State**	**Federal**
(1 Hour Standard)		
Sulfur Dioxide (SO_2) (24 Hour Standard)	Attainment	–
Lead (Pb) (30 Day Standard)	–	Unclassifiable/Attainment
Lead (Pb) (3 Month Standard)	Attainment	Nonattainment (Partial)
Sulfates (SO_{4-2}) (24 Hour Standard)	Attainment	–
Hydrogen Sulfide (H_2S) (1 Hour Standard)	Unclassified	–
Source: South Coast Air Quality Management District, *Air Quality Management Plan*, 2022; U.S. Environmental Protection Agency, *Nonattainment Areas for Criteria Pollutants (Green Book)*, 2024.		

The following is a list of SCAQMD rules with which construction activities associated with the Project must comply:

- **Rule 401 (Visible Emissions)** – A person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any 1 hour that is dark or darker in shade as that designated No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines.
- **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 or crops or the raising of fowl or animals.
- **Rule 403 (Fugitive Dust)** - 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 are paved as soon as feasible, watered regularly, 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 following the work day to remove soil from

pavement.

- **Rule 431.2 (Sulfur Content of Liquid Fuels)** - This rule limits the sulfur content in diesel and other liquid fuels for the purpose of both reducing the formation of sulfur oxides and particulates during combustion and to enable the use of add-on control devices for diesel fueled internal combustion engines.
- **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.

4.0 SIGNIFICANCE CRITERIA AND METHODOLOGY

4.1 Air Quality Thresholds

State CEQA Guidelines Appendix G

Based upon the criteria derived from CEQA Guidelines Appendix G, the City has determined that the Project normally would have a significant effect on the environment if it would:

- 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.

South Coast Air Quality Management District

Mass Emissions Thresholds

The significance criteria established by SCAQMD may be relied upon to make the above determinations. According to the CEQA Appendix G, an air quality impact is considered significant if the 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 criteria pollutant and precursor emissions during construction and operational activities of land use development projects, as shown in Table 6: South Coast Air Quality Management District Emissions Thresholds.

Table 6: South Coast Air Quality Management District Emissions Thresholds

Criteria Air Pollutants and Precursors	Daily Emissions (pounds/day)	
	Construction-Related	Operational-Related
Reactive Organic Gases (ROG)	75	55
Carbon Monoxide (CO)	550	550
Nitrogen Oxides (NO_X)	100	55
Sulfur Oxides (SO_X)	150	150
Coarse Particulates (PM_{10})	150	150
Fine Particulates ($PM_{2.5}$)	55	55

Source: South Coast Air Quality Management District, *CEQA Air Quality Significance Thresholds,* March 2023.

Localized Carbon Monoxide

In addition to the daily thresholds listed above, development associated with the Project would also be subject to the ambient air quality standards. These are addressed through an analysis of localized CO impacts known as the CO "hot spots" analysis. An analysis of CO "hot spots" determines whether the change in the level of service (LOS) of an intersection as a result of Project activities would have the potential to result in exceedances of the CAAQS or NAAQS. It has long been

recognized that one of the greatest contributors of CO to outdoor air is cars.[17] 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).[18] With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations have steadily declined.[19, 20]

Accordingly, with steadily decreasing CO emissions from vehicles, even very busy intersections do not result in exceedances of the CO standard. An analysis prepared for CO attainment in the SCAB by the SCAQMD is useful for current evaluations of the potential for CO exceedances. CO attainment was thoroughly analyzed as part of the SCAQMD's 2003 *Air Quality Management Plan*.[21] Considering the region's unique meteorological conditions and the increasingly stringent CO emissions standards, CO modeling was performed as part of air quality management plans. The SCAB was re-designated as attainment (as reported in Table 21, above) in 2007 and CO is no longer addressed in the SCAQMD's Air Quality Management Plan (AQMP).

The 2003 *Air Quality Management Plan* is the most recent AQMP that addressed CO concentrations. As part of the 2003 AQMP CO Modeling Attainment Demonstration, an analysis was performed utilizing dispersion modeling.[22] The Wilshire Boulevard/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 parts per million (ppm), which is well below the 35-ppm federal standard. As an initial screening step, if a project roadway segment does not exceed and ADT of 100,000 per day, then the project does not need to prepare a detailed CO hot spot analysis.

Localized Significance Thresholds

In addition to the CO hotspot analysis, the SCAQMD developed LSTs for emissions of NO_2, CO, PM_{10}, and $PM_{2.5}$ 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 site without expecting to cause or substantially contributing to an exceedance of the most stringent state or federal ambient air quality standards. 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 required for all projects that disturb 5 acres or less on a single day. The Project Site is located within SCAQMD SRA 23 (Metropolitan Riverside County). Table 7: Local Significance Thresholds for

[17] U.S. Environmental Protection Agency, *Basic Information about Carbon Monoxide (CO) Outdoor Air Pollution,* 2023. https://www.epa.gov/co-pollution/basic-information-about-carbon-monoxide-co-outdoor-air-pollution#:~:text=The%20greatest%20sources%20of%20CO,can%20affect%20air%20quality%20indoors, accessed November 2024

[18] California Code of Regulations Section 1961, Exhaust Emission Standards and Test Procedures – 2004 through 2019 Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles, 2022. https://ww2.arb.ca.gov/sites/default/files/2023-02/cleancomplete_lev_ghg_regs_11_2022.pdf, accessed November 2024

[19] South Coast Air Quality Management District, *Carbon Monoxide Redesignation Request and Maintenance Plan*, February 2005. https://ww2.arb.ca.gov/sites/default/files/classic/planning/sip/sccosip05/sccosip_redesig_mplan.pdf, accessed November 2024

[20] U.S. Environmental Protection Agency, *Carbon Monoxide Trends*, 2023. https://www.epa.gov/air-trends/carbon-monoxide-trends, accessed November 2024

[21] South Coast Air Quality Management District, *Air Quality Management Plan, Appendix V, Modeling and Attainment Demonstrations*, August 2003. https://www.aqmd.gov/home/air-quality/air-quality-management-plans/air-quality-mgt-plan/2003-aqmp, accessed November 2024

[22] Ibid.

Construction/Operations, shows the LSTs for 1-acre, 2-acre, and 5-acre projects in SRA 1 with sensitive receptors located within 25 meters of the Project Site, which represents the closest distance for LSTs.

Table 7: Local Significance Thresholds for Construction/Operations

Project Size	Nitrogen Oxide (NO_x) – lbs/day	Carbon Monoxide (CO) – lbs/day	Coarse Particulates (PM_{10}) – lbs/day	Fine Particulates ($PM_{2.5}$) – lbs/day
1 Acre	118/118	602/602	4/1	3/1
2 Acres	170/170	883/883	7/2	4/1
5 Acres	270/270	1,577/1,577	13/4	8/2

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

LSTs associated with all acreage categories are provided in Table 7 for informational purposes. Table 7 shows that the LSTs increase as acreages increase. It should be noted that LSTs are screening thresholds and are therefore conservative. The construction LST acreage is determined based daily acreage disturbed. The operational LST acreage is based on the total area of the Project Site.

4.2 Methodology

This air quality impact analysis considers construction and operational impacts associated with the Project. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod) version 2022. 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 equipment, trucks, worker vehicles, and ground-disturbing activities associated with Project construction 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.

Project operations would result in emissions of area sources (consumer products), energy sources (natural gas usage), and mobile sources (motor vehicles from Project generated vehicle trips). Project-generated increases in operational emissions would be predominantly associated with motor vehicle use. The Project vehicle trip generation was obtained from the Project's Traffic Analysis Scoping Form (approved October 21, 2024). According to trip generation estimates, the Project would generate 3,654 net daily vehicle trips (accounting for trips generated by existing uses to be demolished and/or relocated within the RCHSP Area). Other operational emissions from area, energy, and stationary sources were quantified in CalEEMod based on land use activity data.

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 for both construction and operations were

evaluated in accordance with the SCAQMD's LST methodology, which uses on-site mass emissions rate look-up tables and Project-specific 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 federal or state ambient air quality standards and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor.

5.0 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 State Implementation Plan (SIP) that demonstrates the means to attain the federal standards. 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 California Ambient Air Quality Standards (CAAQS) require an air quality attainment plan to be prepared for areas designated as nonattainment regarding the state and federal ambient air quality standards. 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 South Coast Air Basin (SCAB), which is under the jurisdiction of the SCAQMD. The SCAQMD is required, pursuant to the Federal Clean Air Act (FCAA), to reduce emissions of criteria pollutants for which the SCAB is in nonattainment. To reduce such emissions, the SCAQMD drafted the 2016 AQMP and 2022 AQMP. The 2016 AQMP establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving state (California) and national air quality standards. The 2022 AQMP builds upon measures already in place from previous AQMPs.[23] The primary purpose of the 2022 AQMP is to identify, develop, and implement strategies and control measures to meet the 2015 8-hour ozone National Ambient Air Quality Standard (NAAQS). Air quality management planning is a regional and multi-agency effort including the SCAQMD, the CARB, the Southern California Association of Governments (SCAG), and the U.S. EPA. The AQMPs' pollutant control strategies are based on the latest scientific and technical information and planning assumptions, including SCAG's growth projections and the 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 2016 and 2022 AQMPs.

Criteria for determining consistency with the AQMPs 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 AQMPs.
- **Consistency Criterion No. 2**: The Project will not exceed the assumptions in the AQMPs 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

[23] South Coast Air Quality Management District, *2022 Air Quality Management Plan, page ES-2,* December 2022. http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan, accessed November 2024

National Ambient Air Quality Standards (NAAQS).[24]

The violations to which Consistency Criterion No. 1 refers are exceedances of the CAAQS or NAAQS. As shown below, the Project would not exceed the construction standards. Therefore, the Project would not result in an increase in 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 AQMPs. With regards to operations, as concluded in the 2014 Final EIR, the parking structure would not generate additional operational emission because the proposed parking structure would support the on-site trip-generating uses. The trips associated with the RCHSP has been contemplated in the 2014 Final EIR. Thus, the Project would be consistent with the AQMP under the first criterion.

Concerning Consistency Criterion No. 2, the 2022 AQMP contains air pollutant reduction strategies based on SCAG's growth forecasts included in the 2020-2045 RTP/SCS. SCAG's growth forecasts are made in consultation with local governments and with reference to their local general plans. The Project is consistent with the City of Riverside General Plan land use designations and with the RCHSP, therefore, the growth associated with the Project at the Project Site has been accounted for in SCAG's latest growth forecasts. The 2020–2045 RTP/SCS provides socioeconomic forecast projections of regional population growth. The population, housing, and employment forecasts, which are adopted by SCAG's Regional Council, are based on the local plans and policies applicable to the specific area; these are used by SCAG in all phases of implementation and review.[25] Thus, the Project would also be consistent with the AQMP under the second criterion.

As shown below, the air pollutant emissions resulting from Project implementation would not exceed the SCAQMD localized significance thresholds for construction. Localized significance thresholds were developed to ensure no exceedances of the California or federal ambient air quality standards would occur if project emissions were below thresholds.[26] As the Project would not increase the frequency or severity of an existing air quality violation or cause or contribute to new violations for air quality pollutants (including VOC, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$), the Project also would not delay timely attainment of air quality standards or interim emission reductions specified in the AQMP. In addition, the Project would be consistent with the population and employment growth projections in the AQMP.

Based on the above, approval of the Project would not result in any significant effects relating to a conflict with or obstruction of the implementation of the SCAQMD's AQMP. Further, the proposed Project would be consistent with the land uses and density contemplated in the 2014 Final EIR. The 2014 Final EIR concluded that buildout of the RCHSP would not conflict with or obstruct implementation of the applicable air quality plan and impacts were determined to be less than significant. No new impacts relative to a conflict with an applicable air quality plan or a substantial increase in the severity of a previously identified impact evaluated in the 2014 Final EIR would occur. Additionally, no new information of substantial importance that was not known and could not have been known at the time the 2014 Final EIR was certified is available that would impact the prior

[24] South Coast Air Quality Management District, *CEQA Air Quality Handbook*, 1993.
[25] Southern California Association of Governments, Connect SoCal (2020–2045 RTP/SCS), adopted September 2020, https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal-plan_0.pdf?1606001176, accessed November 2024
[26] South Coast Air Quality Management District, Localized Significance Thresholds, https://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/localized-significance-thresholds, accessed November 2024

finding of no significant impact under this issue area.

2014 Final EIR Mitigation Measures: No mitigation is required.

Project Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

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?

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. 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 are considered to result in a less than significant impact on a cumulative basis unless there is other pertinent information to the contrary.[27] Therefore, a project whose emissions would exceed SCAQMD thresholds would also make a cumulatively considerable contribution to a significant cumulative impact and, conversely, a project whose emissions would be below SCAQMD thresholds would not make a cumulatively considerable contribution to a significant cumulative impact.

Construction Emissions

Construction associated with the Project would generate short-term emissions of criteria air pollutants. The criteria pollutants of primary concern within the SCAB include ozone-precursor pollutants (i.e., ROG and NO_X), PM_{10}, and $PM_{2.5}$. Construction-generated emissions of these criteria pollutants would be short-term and 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 were to exceed the SCAQMD's thresholds of significance.

Project construction would result in the temporary generation of criteria pollutant emissions from all phases of construction, including demolition, site grading, building construction, and architectural coating, as well as from motor vehicle exhaust associated with construction equipment, materials deliveries and worker trips, and the movement of construction equipment, especially on unpaved surfaces. Emissions of airborne particulate matter are largely generated by motor vehicle exhaust and ground disturbance; the volume of airborne particulate matter is largely dependent on the amount of ground disturbance associated with site preparation activities, as well as weather conditions and the appropriate application of water.

Construction activities for the Project were assumed to begin in the second quarter of 2025. Construction-generated emissions associated with the Project were calculated using the CARB-approved California Emissions Estimator Model (CalEEMod), version 2022, which is designed to

[27] South Coast Air Quality Management District, *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution*, August 2003. https://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf, accessed November 2024

model emissions for land use development projects based on typical construction requirements. It was assumed that all construction equipment operated during each individual phase would be operated simultaneously, to provide a conservative analysis. See Appendix A: Air Quality Data for more information regarding the construction assumptions used in this analysis.

The predicted maximum daily construction-generated criteria pollutant emissions for the proposed Project are reported in Table 8: Project Construction Criteria Pollutant Emissions. As noted in Table 8, the Project's emissions were calculated assuming mandatory compliance with SCAQMD Rule 403 (2014 Final EIR MM AQ-3), fugitive dust control measures, and 2014 Final EIR MM AQ-1 and MM AQ-2, which require Tier 2 and Tier 4 or better, respectively, diesel engines for heavy-duty diesel-powered equipment.

Table 8: Project Construction Criteria Pollutant Emissions

Construction Year	Emissions (pounds per day)[1, 2]					
	ROG	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Year 1 (2025)	1.18	10.32	31.87	0.05	3.79	1.60
Year 2 (2026)	0.69	5.06	15.58	0.03	1.48	0.39
SCAQMD Threshold	75	100	550	150	150	55
SCAQMD Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

1. Mandatory compliance with SCAQMD Rule 403 Fugitive Dust assumed. 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. Reductions percentages from the SCAQMD CEQA Handbook (Tables XI-A through XI-E) were applied.
2. Compliance with 2014 Final EIR MM AQ-2 requiring Tier 4 or better diesel engines for heavy-duty diesel-powered equipment.

Refer to Appendix A for Model Data Outputs.

Source: CalEEMod version 2022. Refer to Appendix A for model outputs.

The results summarized in Table 8 show that the Project's regional criteria pollutant emissions during construction would remain below applicable thresholds.

Project construction would also comply with SCAQMD Rules 402 (Nuisance)[28] and 1113 (Architectural Coatings)[29] and CARB's anti-idling regulations, which prohibit idling for more than five minutes; however, compliance with these rules was not assumed when estimating the Project's construction emissions for Table 8, above. Therefore, the Project's maximum-day construction emissions of criteria pollutants would be even lower than reported in Table 8 when the Project's compliance with SCAQMD Rules 402 and 1113 and CARB's anti-idling regulations are taken into account.

As shown above, the Project's estimated criteria pollutant emissions during construction would be below their respective thresholds such that approval of the Project would not result in any significant project-level effects relating to regional construction air pollutant emissions. No new impacts or a substantial increase in the severity of a previously identified impact evaluated in the 2014 Final EIR would occur. Additionally, no new information of substantial importance that was not known and could not have been known at the time the 2014 Final EIR was certified is available that would impact the prior finding of no significant impact under this issue area.

[28] SCAQMD Rule 402 prohibits the discharge of quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of people or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public or have a natural tendency to cause injury or damage to business or property.

[29] SCAQMD Rule 1113 sets limits on the VOC content of architectural coatings.

Operational Emissions

The Project's operational emissions would be associated with area sources (e.g., landscape maintenance equipment, architectural coatings, etc.) and energy sources. As concluded in the 2014 Final EIR, the parking structure would not generate additional operational emission because the proposed parking structures would support the on-site trip-generating uses. The trips associated with the RCHSP has been contemplated in the 2014 Final EIR. Primary sources of operational criteria pollutants would therefore be area and energy sources. Long-term operational emissions attributable to the Project are summarized in Table 9: Operational Criteria Pollutant Emissions. The operational emissions sources are described below.

- *Area Source Emissions*. Area source emissions would be generated due to on-site equipment, architectural coating, and landscape maintenance equipment.
- *Energy Source Emissions*. Energy source emissions would be generated due to electricity usage associated with the Project. Primary energy uses include ventilation, lighting, and elevators.
- *Mobile Source Emissions*. As concluded in the 2014 Final EIR, the parking structure would not generate additional operational emission because the proposed parking structure would support the on-site trip-generating uses. Therefore, mobile emissions associated with the proposed parking garage is zero.
- *Stationary Source Emissions*. The proposed parking garage would include an emergency generator and a fire pump. Stationary equipment would not be part of the Project's normal daily operations. Nonetheless, emissions associated one emergency backup generator and one fire pump was included to be conservative. Emissions were calculated separately form CalEEMod. However, CalEEMod default emissions rates were used.

Table 9: Operational Criteria Pollutant Emissions

Source	Emissions (pounds per day)[1, 2]					
	ROG	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Area	1.50	0.08	9.04	<0.10	0.02	0.01
Energy	--	--	--	--	--	--
Mobile	--	--	--	--	--	--
Stationary	1.00	2.79	2.55	<0.01	0.15	0.15
Proposed Project Total	**2.50**	**2.87**	**11.59**	**<0.10**	**0.17**	**0.16**
SCAQMD Threshold	55	55	550	150	150	55
SCAQMD Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**
Worst-case seasonal maximum daily emissions are reported.						
Source: CalEEMod version 2022. Refer to Appendix A for model outputs.						

As shown in Table 9, and discussed above, operational (i.e., area, energy, stationary) emissions would not exceed SCAQMD thresholds for any criteria pollutant. Therefore, the Project would not violate any air quality standards or contribute substantially to an existing or projected air quality violation. As a result, approval of the Project would not result in any significant project-level effects relating to operational air quality impacts.

Cumulative Impacts

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 construction and operational thresholds of significance based on the level above which individual project emissions would result in a cumulatively considerable contribution to SCAB's existing air quality conditions. In addition, 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 are considered to result in a less than significant impact on a cumulative basis unless there is other pertinent information to the contrary.[30] Therefore, a project whose emissions would exceed SCAQMD thresholds would also make a cumulatively considerable contribution to a significant cumulative impact and, conversely, a project whose emissions would be below SCAQMD thresholds would not make a cumulatively considerable contribution to a significant cumulative impact.

Cumulative Construction Impacts

The SCAB is designated nonattainment for O_3, PM_{10}, and $PM_{2.5}$ under the State standards and nonattainment for O_3 and $PM_{2.5}$ under the federal standards. As discussed above, the Project's construction-related emissions, by themselves, would not exceed the SCAQMD significance thresholds for criteria pollutants. As discussed above, if a project is estimated to result in emissions that do not exceed SCAQMD thresholds, the project's contribution to the cumulative impact on air quality in the SCAB would not be considered to be cumulatively considerable.[31] As shown in Table 8 above, Project construction-related emissions would not exceed the SCAQMD significance thresholds for any of the criteria pollutants. Therefore, the Project would not generate a cumulatively considerable contribution to air pollutant emissions during construction.

The SCAQMD has developed strategies to reduce criteria pollutant emissions as outlined in the AQMP pursuant to the federal Clean Air Act mandates. The analysis assumed fugitive dust controls would be used 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 SCAB, which would include the related projects. As concluded above, the Project's construction-related impacts would be less than significant, and its compliance with SCAQMD rules and regulations would further minimize the proposed Project's construction-related emissions. Therefore, Project-related construction emissions, in combination with those from other, related projects in the area, would not substantially deteriorate the local air quality. The Project's construction-related emissions would not result in a cumulatively considerable contribution to significant cumulative air quality impacts.

Cumulative Operational Impacts

As discussed above, projects that would result in operational emissions that do not individually

[30] South Coast Air Quality Management District, *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution*, August 2003. https://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf, accessed November 2024

[31] Ibid.

exceed SCAQMD regional thresholds of significance are not considered to make a cumulatively considerable contribution to a significant cumulative impact on air quality in the SCAB. Table 9 shows that the Project's operational emissions would not exceed the SCAQMD thresholds. As a result, operational emissions associated with the Project would not make a cumulatively considerable contribution to significant cumulative air quality impacts. Therefore, cumulative operational impacts would be less than significant.

Conclusion

The 2014 Final EIR concluded that implementation of Phase IIb of the RCHSP would not result in a cumulatively considerable net increase of any criteria pollutant and that less than significant impacts would result. No new impacts or a substantial increase in the severity of a previously identified impact evaluated in the 2014 Final EIR would occur. Additionally, no new information of substantial importance that was not known and could not have been known at the time the 2014 Final EIR was certified is available that would impact the prior finding of no significant impact under this issue area.

2014 Final EIR Mitigation Measures:

MM AQ-1 The following measures shall be adhered to during project grading and construction to reduce oxides of nitrogen (NO,) from construction equipment for all phases of the project:

a. Heavy-duty diesel-powered construction equipment rated at greater than 50 horsepower shall be equipped with Tier 2 or better diesel engines.

b. The engine size of construction equipment shall be the minimum size.

c. The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest number is operating at any one time.

d. Construction equipment shall be maintained in tune per the manufacturer' s specifications.

e. Catalytic converters shall be installed on gasoline-powered equipment over 50 horsepower.

f. Electric equipment shall be utilized in lieu of diesel- powered equipment, where feasible.

MM AQ-2 During the environmental review process for future discretionary permits for Phase IIC of the Riverside Community Hospital Expansion Project, an air quality technical report that includes project construction phasing, timing and operational details shall be analyzed using the current air quality model available from the South Coast Air Quality Management District (SCAQMD). Project emissions shall be modeled and then evaluated based on current SCAQMD thresholds. The technical analysis for Phase IIC shall be prepared to analyze construction and operational emissions.

If air quality impacts are determined to be significant, feasible and appropriate project-specific mitigation measures shall be incorporated to reduce impacts. Examples of standard construction mitigation measures include the following:

Consistent with SCAQMD Rule 403, it is required that fugitive dust generated by grading and construction activities be kept to a minimum with a goal of retaining dust on the site, by following the dust control measures listed below:

a. During clearing, grading, earthmoving, excavation, or transportation of cut or fill materials, water trucks or sprinkler systems shall be used to prevent dust from leaving the site and to create a crust after each day' s activities cease.

b. During construction, water trucks or sprinkler systems shall be used to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this would include wetting down such areas later in the morning, after work is completed for the day, and whenever winds exceed 15 miles per hour.

c. Soil stockpiled for more than 2 days shall be covered, kept moist, or treated with soil binders to prevent dust generation.

d. Speeds on unpaved roads shall be reduced to less than 15 miles per hour.

e. All grading and excavation operations shall be halted when wind speeds exceed 25 miles per hour.

f. Dirt and debris spilled onto paved surfaces at the project site and on the adjacent roadways shall be swept, vacuumed, and/ or washed at the end of each workday.

g. If import/export of soil materials would be required, all trucks hauling dirt, sand, soil, or other loose material to and from the construction site shall be covered and/ or a minimum 2 feet of freeboard shall be maintained.

h. At a minimum, at each vehicle egress from the project site to a paved public road, a pad consisting of washed gravel (minimum size: 1 inch) shall be installed and maintained in clean condition to a depth of at least 6 inches and extending at least 30 feet wide and at least 50 feet long (or as otherwise directed by the SCAQMD).

i. Any additional requirements of SCAQMD Rule 403 shall be reviewed and complied with.

The following measures shall be adhered to during project grading and construction to reduce emissions of volatile organic compounds (VOC) and oxides of nitrogen (NO,) from construction equipment:

a. Heavy-duty diesel-powered construction equipment rated at greater than 50 horsepower shall be equipped with Tier 4 or better diesel engines.

b. The engine size of construction equipment shall be the minimum size.

c. The amount of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest amount of equipment is operating at any one time.

d. Construction equipment shall be maintained in tune per the manufacturer' s specifications.

e. Catalytic converters shall be installed on gasoline-powered equipment over 50 horsepower.

f. Electric equipment shall be utilized in lieu of diesel- powered equipment, where feasible.

g. RCH shall use zero-VOC-content architectural coatings during project construction/application of paints and other architectural coatings to reduce ozone precursors. If zero-VOC paint cannot be utilized, the developer shall avoid application of architectural coatings during the peak smog season: July, August, and September. RCH shall procure architectural coatings from a supplier in compliance with the requirements of SCAQMD' s Rule 1113 Architectural Coatings).

If air quality impacts for operational emissions for Phase IIC are determined to be significant, feasible and appropriate project-specific mitigation measures shall be incorporated to reduce impacts. Examples of standard operational mitigation measures include the following: reduce trips in passenger vehicles by patients, visitors, or physicians/ staff, enhance transportation management demand programs; and reduce energy usage.

Project Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

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

Localized Construction Significance Analysis

The nearest sensitive receptor to the Project Site is Grant Elementary School located approximately 75 feet to the north of the Project Site. To assess the potential for Project construction to create impacts to sensitive receptors, the SCAQMD recommends utilizing its Localized Significance Thresholds (LSTs) for construction. The LSTs were developed in response to the SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4) and are based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor. LSTs represent the maximum emissions from a project that are not expected to cause or

contribute to an exceedance of the state or federal ambient air quality standard (the more stringent of the two).[32] The SCAQMD provided the *Final Localized Significance Threshold Methodology* (dated June 2003 [revised 2008]) for guidance.[33] The LST methodology assists lead agencies in their project-specific analysis of the potential localized impacts associated with proposed projects.

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 10: Equipment-Specific Grading Rates was used to determine the maximum daily disturbed acreage for the LST analysis.[34] For this Project, the appropriate source receptor area (SRA) for the LSTs is the SRA 23, since this area includes the Project Site. LSTs only take into consideration emissions of NO_x, CO, PM_{10}, and $PM_{2.5}$.[35] The SCAQMD produced look-up tables for projects that disturb areas less than or equal to 5 acres in size.[36] Based on the daily equipment modeled in CalEEMod, Project construction is anticipated to disturb approximately 1.5 acre in a single day. Thus, the LSTs applicable to this Project uses the SCAQMD-produced look up tables for a 1.5-acre site.

Table 10: Equipment-Specific Grading Rates

Construction Phase	Equipment Type	Equipment Quantity	Acres Graded per 8-Hour Day	Operating Hours per Day	Acres Graded per Day
Grading	Tractor/Backhoe	1	0.5	8	0.5
	Dozer	1	0.5	8	0.5
	Grader	1	0.5	8	0.5
				Total Acres Graded per Day	1.5

Source: CalEEMod version 2022

The SCAQMD's methodology states that "off-site mobile emissions from the Project should not be included in the emissions compared to LSTs."[37] Therefore, for purposes of the construction LST analysis, only the emissions included in the CalEEMod "on-site" emissions outputs were considered. LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. SCAQMD's LST guidance recommends using the 25-meter threshold for receptors located 25 meters (or approximately 82 feet) or less from the Project Site.[38] Therefore, the LSTs for 1.5 acre at 25 meters were used for the construction analysis, which is consistent with the SCAQMD LST methodology.

Table 11: Localized Significance of Construction Emissions presents the emissions modeling results

[32] South Coast Air Quality Management District, *Localized Significance Thresholds*, https://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/localized-significance-thresholds, accessed November 2024

[33] South Coast Air Quality Management District, *Final Localized Significance Threshold Methodology*, Revised 2008, http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/localized-significance-thresholds, accessed November 2024

[34] South Coast Air Quality Management District, *Sample Construction Scenarios for Projects Less than Five Acres in Size*, February 2005. https://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-sample-construction-scenario-report.pdf?sfvrsn=2, accessed November 2024

[35] South Coast Air Quality Management District, *Final Localized Significance Threshold Methodology*, Revised 2008, http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/localized-significance-thresholds, accessed November 2024

[36] South Coast Air Quality Management District, *Final Localized Significance Threshold Methodology, Appendix C – Mass Rate LST Look-up Tables*, Revised 2008, http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/localized-significance-thresholds, accessed November 2024

[37] South Coast Air Quality Management District, *Final Localized Significance Threshold Methodology*, Revised 2008, http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/localized-significance-thresholds, accessed November 2024

[38] Ibid

for the Project's localized emissions during construction. As stated above, compliance with SCAQMD Rules 402 and 1113 and CARB anti-idling regulations were not assumed when estimating the Project's localized construction emissions for Table 11. Therefore, the Project's maximum-day localized construction emissions would actually be even lower than reported in Table 11. Table 11 shows that the emissions of these pollutants on the peak day of construction would not exceed the LSTs and therefore would not be expected to create substantial concentrations of pollutants at the sensitive receptors closest to the Project Site or cause or contribute to an exceedance of federal or state ambient air quality standards. Therefore, approval of the Project would not result in any significant effects relating to localized construction air pollutant concentrations.

Table 11: Localized Significance of Construction Emissions

Source/Activity	Emissions (pounds per day)[1,2,3]			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Demolition	2.27	14.56	2.97	0.49
Site Preparation	1.01	11.88	2.48	1.21
Grading	1.20	14.24	2.81	1.38
Infrastructure Improvements	3.54	10.47	0.03	0.03
Building Construction	3.54	10.47	0.03	0.03
Paving	0.99	6.65	0.02	0.02
Architectural Coating	0.65	0.96	<0.01	<0.01
Infrastructure Improvements + Building Construction	7.08	20.94	0.06	0.06
Paving + Architectural Coating	1.64	7.61	0.02	0.02
Maximum Daily Emissions	7.08	20.94	2.97	1.38
SCAQMD LST (for 1.5 acre at 25 meters)	*144*	*743*	*6*	*4*
Maximum Daily Emissions Exceed SCAQMD Threshold?	**No**	**No**	**No**	**No**

1. Worst-case seasonal maximum daily emissions are reported.
2. Mandatory compliance with SCAQMD Rule 403 Fugitive Dust applied for construction emissions. 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. Reductions percentages from the SCAQMD CEQA Handbook (Tables XI-A through XI-E) were applied.
3. Compliance with 2014 Final EIR MM AQ-2 requiring Tier 4 or better diesel engines for heavy-duty diesel-powered equipment.

Source: CalEEMod version 2022. Refer to Appendix A for model outputs.

Localized Operational Significance Analysis

According to the SCAQMD localized significance threshold methodology, operational LSTs apply only to on-site sources.[39] LSTs for receptors located at 25 meters for SRA 23 were utilized in this analysis. The 1.0-acre LST threshold was conservatively used for the Project Site.[40] The on-site operational emissions were calculated using CalEEMod and are compared to the LST thresholds in Table 12: Localized Significance of Operational Emissions.

[39] Ibid.

[40] Construction LST analysis is based on the amount of daily ground disturbance, which was calculated to be 1.5 acre. For operations, the size of the Project Site has been used.

Table 12: Localized Significance of Operational Emissions				
Activity	**Emissions (pounds per day)[1, 2]**			
	NO_X	**CO**	**PM_{10}**	**$PM_{2.5}$**
On-Site Emissions (Area, Energy, Stationary Sources)	2.87	11.59	0.17	0.16
SCAQMD Localized Screening Threshold (1.0 acre at 25 meters)	*118*	*602*	*1*	*1*
Exceed SCAQMD Threshold?	**No**	**No**	**No**	**No**
1. As recommended by the SCAQMD. Worst-case seasonal maximum daily emissions are reported. 2. On-site emissions consist of area sources and energy sources.				
Source: CalEEMod version 2022. Refer to Appendix A for model outputs.				

The operational emissions shown on Table 12 include all on-site Project-related sources (i.e., area and energy). On-site operational sources include stationary sources and/or on-site mobile equipment and off-site mobile emissions should not be included.[41] The results of the LST analysis show that the Project would not cause or contribute to an exceedance of federal or state ambient air quality standards. Therefore, approval of the Project would not result in any significant effects relating to operational air pollutant concentrations.

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 significant 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.5th, Case No. S219783).

The SCAQMD has set its CEQA significance thresholds based on the FCAA, which defines a major stationary source (in extreme ozone 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[42] 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 federal ambient air quality standards. The federal ambient air quality standards establish the levels of air pollutant emissions 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.

As previously discussed, localized effects of on-site Project emissions on nearby receptors were found to be less than significant (refer to Table 11 and Table 12). 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 pollutant emissions necessary, with an adequate margin of safety, to protect public health, including

[41] South Coast Air Quality Management District, *Final Localized Significance Threshold Methodology*, Revised 2008, http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/localized-significance-thresholds, accessed November 2024

[42] 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)

protecting the health of sensitive populations. Information on health impacts related to exposure to ozone and particulate matter emissions published by the U.S. EPA and CARB have been summarized above and discussed in the Regulatory Setting section. As shown above, Project-related emissions would not exceed the regional thresholds or the LSTs, and therefore would not exceed the ambient air quality standards or cause an increase in the frequency or severity of existing violations of air quality standards. Therefore, sensitive receptors would not be exposed to criteria pollutant levels in excess of the health-based ambient air quality standards.

Carbon Monoxide Hotspots

As discussed above, projects that would not produce traffic volumes resulting in more than 100,000 daily vehicles along project area roadway segments would not require preparation of a detailed CO hot spot analysis. The Project would support on-site uses and would not generate vehicle trips. Trips generated by the RCHSP have been contemplated in the 2014 Final EIR and no future study is required. Therefore, the Project would not result in any significant effects relating to CO concentrations.

Conclusion

The 2014 Final EIR concluded that implementation of the RCHSP would not expose sensitive receptors to substantial pollutant concentrations and that less than significant impacts would result. No new impacts or a substantial increase in the severity of a previously identified impact evaluated in the 2014 Final EIR would occur. Additionally, no new information of substantial importance that was not known and could not have been known at the time the 2014 Final EIR was certified is available that would impact the prior finding of no significant impact under this issue area.

2014 Final EIR Mitigation Measures:

MM AQ-3 During construction of all phases of the project, the following mitigation measures shall be incorporated to reduce impacts resulting from the exceedance of the South Coast Air Management District (SCAQMD) localized significance thresholds.

Consistent with SCAQMD Rule 403, it is required that fugitive dust generated by grading and construction activities be kept to a minimum with a goal of retaining dust on the site, by following the dust control measures listed below:

a. During clearing, grading, earthmoving, excavation, or transportation of cut or fill materials, water trucks or sprinkler systems shall be used to prevent dust from leaving the site and to create a crust after each day's activities cease.

b. During construction, water trucks or sprinkler systems shall be used to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this would include wetting down such areas later in the morning, after work is completed for the day, and whenever winds exceed 15 miles per hour.

c. Soil stockpiled for more than 2 days shall be covered, kept moist, or treated with soil binders to prevent dust generation.

d. Speeds on unpaved roads shall be reduced to less than 15 miles per hour.

e. All grading and excavation operations shall be halted when wind speeds exceed 25 miles per hour.

f. Dirt and debris spilled onto paved surfaces at the project site and on the adjacent roadways shall be swept, vacuumed, and /or washed at the end of each workday.

g. If import /export of soil materials would be required, all trucks hauling dirt, sand, soil, or other loose material to and from the construction site shall be covered, and /or a minimum 2 feet of freeboard shall be maintained.

h. At a minimum, at each vehicle egress from the project site to a paved public road, a pad consisting of washed gravel (minimum size: 1 inch) shall be installed and maintained in clean condition to a depth of at least 6 inches and extending at least 30 feet wide and at least 50 feet long (or as otherwise directed by SCAQMD).

i. Any additional requirements of SCAQMD Rule 403 shall be reviewed and complied with.

j. The construction contractor or Riverside Community Hospital representative shall notify sensitive receptors when building demolition and grading activities would occur so that sensitive residents could be kept indoors or other accommodations made for their comfort. The construction contractor shall post readily visible signage in publicly accessible areas along the property lines of the Riverside Community Hospital with a contact name and telephone number in the event that project construction would generate nuisance levels of air pollutants in the surrounding community. Action shall be taken within 4 hours after notification to determine the cause of the objectionable emissions and take corrective action.

The following measures shall be adhered to during project grading and construction to reduce emissions of oxides of nitrogen (NOx) from construction equipment:

a. Heavy-duty diesel-powered construction equipment rated at greater than 50 horsepower shall be equipped with Tier 3 or better diesel engines.

b. The engine size of construction equipment shall be the minimum size.

c. The amount of construction equipment operating simultaneously shall

be minimized through efficient management practices to ensure that the smallest amount of equipment is operating at any one time.

d. Construction equipment shall be maintained in tune per the manufacturer's specifications.

e. Catalytic converters shall be installed on gasoline-powered equipment over 50 horsepower.

f. Electric equipment shall be utilized in lieu of diesel-powered equipment, where feasible.

Project Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

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.*

During construction, emissions from construction equipment, such as diesel exhaust, and from volatile organic compounds contained in 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.

Operational

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 proposes the construction of a parking garage which would not involve the types of uses that would emit objectionable odors affecting substantial numbers of people. The Project would not include any of the land uses that have been identified by the SCAQMD as significant odor sources.

Therefore, the Project would not result in any significant effects relating to other air emissions affecting substantial numbers of people.

Conclusion

The 2014 Final EIR concluded that implementation of the Specific Plan would not create

objectionable odors affecting a substantial number of people and that less than significant impacts would result. No new impacts or a substantial increase in the severity of a previously identified impact evaluated in the 2014 Final EIR would occur. Additionally, no new information of substantial importance that was not known and could not have been known at the time the 2014 Final EIR was certified is available that would impact the prior finding of no significant impact under this issue area.

2014 Final EIR Mitigation Measures: No mitigation is required.

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

5.2 Cumulative Impacts

Cumulative Setting

The cumulative setting for air quality includes the City of Riverside and the SCAB. The SCAB is designated as a nonattainment area for state standards of ozone, PM_{10}, and $PM_{2.5}$. For federal standards, the SCAB is designated as a partial nonattainment area for lead and nonattainment for ozone and $PM_{2.5}$, attainment and serious maintenance for federal PM_{10} standards, and unclassified or attainment for all other pollutants. Cumulative growth in population and vehicle use could inhibit efforts to improve regional air quality and attain the ambient air quality standards. However, as a result of plans and regulations, air quality in the SCAB has improved over time despite population growth and increased in vehicle usage.

Cumulative Impacts

The SCAQMD's approach to assessing cumulative impacts is based on the AQMP forecasts of attainment of ambient air quality standards in accordance with requirements of the FCAA and CCAA and analysis of project-level impacts.[43] For the reasons discussed above, the Project would be consistent with the AQMP, which is intended to bring SCAB into attainment for all criteria pollutants. Additionally, since the Project's estimated construction and operational emissions would not exceed the applicable SCAQMD daily significance thresholds that are designed to assist the region in attaining both NAAQS and CAAQS, cumulative impacts would be less than significant.

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

[43] South Coast Air Quality Management District, *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution*, August 2003. https://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf, accessed November 2024

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Appendix A

Air Quality Modeling Data

Riverside Community Hospital Brockton Parking Garage
CalEEMod Assumptions

Land Use

Land Use	Size	Metric
Unenclosed Parking with Elevator	166,224	SF
Enclosed Parking with Elevator	41,556	SF
Off-Site Improvements	0.1	AC
KSF = thousand square feet; DU = dwelling unit		

Construction

Schedule

Phase Name	Start Date	End Date	Workdays
Demolition	4/1/2025	6/1/2025	44
Site Preparation	6/2/2025	6/29/2025	20
Grading	6/30/2025	9/28/2025	65
Infrastructure Improvements	10/1/2025	12/31/2025	66
Building Construction	9/29/2025	2/15/2026	100
Paving	2/16/2026	6/28/2026	95
Architectural Coating	2/16/2026	7/31/2026	120

Equipment

Construction Phase	Equipment	Number per Day	Hours Per Day	Engine Tier
Demolition	Tractors/Loaders/Backhoes	3	8	Tier 4 Final
	Rubber Tired Dozers	1	8	Tier 4 Final
	Concrete/Industrial Saws	1	8	Tier 4 Final
Site Preparation	Graders	1	8	Tier 4 Final
	Rubber Tired Dozers	1	8	Tier 4 Final
	Tractors/Loaders/Backhoes	2	7	Tier 4 Final
Grading	Graders	1	8	Tier 4 Final
	Rubber Tired Dozers	1	8	Tier 4 Final
	Tractors/Loaders/Backhoes	2	7	Tier 4 Final
Infrastructure Improvement	Cranes	1	6	Tier 4 Final
	Forklifts	1	6	Tier 4 Final
	Generator Sets	1	8	Tier 4 Final
	Tractors/Loaders/Backhoes	1	6	Tier 4 Final
	Welders	3	8	Tier 4 Final
Building Construction	Cranes	1	6	Tier 4 Final
	Forklifts	1	6	Tier 4 Final
	Generator Sets	1	8	Tier 4 Final
	Tractors/Loaders/Backhoes	1	6	Tier 4 Final
	Welders	3	8	Tier 4 Final
Paving	Cement and Mortar Mixers	1	6	Tier 4 Final
	Pavers	1	6	Tier 4 Final
	Paving Equipment	1	8	Tier 4 Final

Construction Phase	Equipment	Number per Day	Hours Per Day	Engine Tier
	Rollers	1	7	Tier 4 Final
	Tractors/Loaders/Backhoes	1	8	Tier 4 Final
Architectural Coating	Air Compressors	1	6	Tier 4 Final

Grading/Earthwork

Phase	Import (CY)	Export (CY)	Haul Distance (mi)
Site Preparation	--	--	--
Grading	--	15,000	20
CY = cubic yards; mi = miles			

Worker, Vendor, and Haul Trips

Trip Type	# One-Way Trips/Day	Trip Length (miles)
Demolition		
Worker	13	18.5
Vendor	0	10.2
Hauling	34	20
On-Site Truck	0	0
Site Preparation		
Worker	8	18.5
Vendor	0	10.2
Hauling	0	20
On-Site Truck	0	0
Grading		
Worker	10	18.5
Vendor	0	10.2
Hauling	29	20
On-Site Truck	0	0
Infrastructure Improvements		
Worker	87	18.5
Vendor	34	10.2
Hauling	0	20
On-Site Truck	0	0
Building Construction		
Worker	87	18.5
Vendor	34	10.2
Hauling	0	20
On-Site Truck	0	0
Paving		
Worker	13	18.5
Vendor	0	10.2

Trip Type	# One-Way Trips/Day	Trip Length (miles)
Hauling	0	20
On-Site Truck	0	0
Architectural Coating		
Worker	35	18.5
Vendor	0	10.2
Hauling	0	20
On-Site Truck	0	0

Demolition

Phase	Amount (CY)
Building	
Building Area (SF)	61,500
Waste Volume (CF)	153,750
Waste Volume (CY)	5,694
Building Waste Volume (tons)	2,847
Pavement	
Pavement Area (SF)	87,120
Pavement Thickness (ft)	0.5
Pavement Volume (CF)	43,560
Pavement Density (lbs/CF)	145
Pavement Waste (lbs)	6,316,200
Pavement Waste (tons)	3,158
TOTAL DEMOLITION WASTE (tons)	**6,005**
CY = cubic yards	

Operations

Vehicle Data

Land Use	Size	Metric	Trip Rate	Daily Trip Generation
Unenclosed Parking with Elevator	166,224	SF	0	0
Enclosed Parking with Elevator	41,556	SF	0	0
Off-Site Improvements	0.1	AC	0	0
Total Daily Trips	-	-	-	**0**
KSF = thousand square feet; DU = dwelling unit				

Stationary Sources

Equipment Type	Fuel Type	#	Hours/ Day	Hours/ Year	HP	Load Factor
Emergency Generators	Diesel	1	1	50	300	0.74
Fire Pumps	Diesel	1	1	50	300	0.74
HP = horsepower						

RCH Parking Garage Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	RCH Parking Garage
Construction Start Date	4/1/2025
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.20
Precipitation (days)	6.80
Location	4445 Magnolia Ave, Riverside, CA 92501, USA
County	Riverside-South Coast
City	Riverside
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5405
EDFZ	11
Electric Utility	City of Riverside
Gas Utility	Southern California Gas
App Version	2022.1.1.29

1.2. Land Use Types

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

Unenclosed Parking with Elevator	480	Space	1.76	166,224	15,632	0.00	—	—
Enclosed Parking with Elevator	118	Space	0.00	41,556	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.72	0.69	5.07	17.6	0.04	0.09	3.70	3.79	0.09	1.51	1.60	—	5,022	5,022	0.15	0.40	7.48	5,150
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.32	1.18	10.3	31.9	0.05	0.09	2.86	2.96	0.09	0.70	0.79	—	7,949	7,949	0.30	0.43	0.39	8,086
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.36	0.32	3.20	11.3	0.02	0.05	1.71	1.76	0.05	0.54	0.59	—	2,992	2,992	0.10	0.19	1.84	3,052
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.07	0.06	0.58	2.05	< 0.005	0.01	0.31	0.32	0.01	0.10	0.11	—	495	495	0.02	0.03	0.31	505

2.2. Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.72	0.61	5.07	17.6	0.04	0.09	3.70	3.79	0.09	1.51	1.60	—	5,022	5,022	0.15	0.40	7.48	5,150
2026	0.72	0.69	1.82	11.0	0.01	0.02	0.62	0.64	0.02	0.15	0.17	—	1,779	1,779	0.07	0.03	2.21	1,792
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.32	1.18	10.3	31.9	0.05	0.09	2.86	2.96	0.09	0.70	0.79	—	7,949	7,949	0.30	0.43	0.39	8,086
2026	0.71	0.68	5.06	15.6	0.03	0.05	1.43	1.48	0.05	0.35	0.39	—	3,933	3,933	0.11	0.22	0.18	4,001
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.36	0.32	3.20	11.3	0.02	0.05	1.71	1.76	0.05	0.54	0.59	—	2,992	2,992	0.10	0.19	1.84	3,052
2026	0.27	0.26	1.00	4.31	0.01	0.01	0.32	0.33	0.01	0.08	0.09	—	846	846	0.03	0.03	0.56	856
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.07	0.06	0.58	2.05	< 0.005	0.01	0.31	0.32	0.01	0.10	0.11	—	495	495	0.02	0.03	0.31	505
2026	0.05	0.05	0.18	0.79	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.02	—	140	140	< 0.005	< 0.005	0.09	142

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.62	1.50	0.08	9.04	< 0.005	0.02	0.00	0.02	0.01	0.00	0.01	0.00	1,528	1,528	0.06	0.01	0.00	1,531
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,491	1,491	0.06	0.01	0.00	1,494

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.12	1.03	0.05	6.19	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	1,516	1,516	0.06	0.01	0.00	1,520
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.20	0.19	0.01	1.13	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	251	251	0.01	< 0.005	0.00	252

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	1.62	1.50	0.08	9.04	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.2	37.2	< 0.005	< 0.005	—	37.3
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,488	1,488	0.06	0.01	—	1,491
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	3.15	3.15	< 0.005	< 0.005	—	3.15
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	1.62	1.50	0.08	9.04	< 0.005	0.02	0.00	0.02	0.01	0.00	0.01	0.00	1,528	1,528	0.06	0.01	0.00	1,531
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,488	1,488	0.06	0.01	—	1,491
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	3.15	3.15	< 0.005	< 0.005	—	3.15
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,491	1,491	0.06	0.01	0.00	1,494
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	1.12	1.03	0.05	6.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	25.5	25.5	< 0.005	< 0.005	—	25.5
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,488	1,488	0.06	0.01	—	1,491
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	3.15	3.15	< 0.005	< 0.005	—	3.15
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	1.12	1.03	0.05	6.19	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	1,516	1,516	0.06	0.01	0.00	1,520
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	0.20	0.19	0.01	1.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.21	4.21	< 0.005	< 0.005	—	4.23
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	246	246	0.01	< 0.005	—	247
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.52	0.52	< 0.005	< 0.005	—	0.52
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.20	0.19	0.01	1.13	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	251	251	0.01	< 0.005	0.00	252

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	0.25	2.27	14.6	0.02	0.05	—	0.05	0.05	—	0.05	—	2,494	2,494	0.10	0.02	—	2,502
Demolition	—	—	—	—	—	—	2.92	2.92	—	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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.27	1.75	< 0.005	0.01	—	0.01	0.01	—	0.01	—	301	301	0.01	< 0.005	—	302
Demolition	—	—	—	—	—	—	0.35	0.35	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.32	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	49.8	49.8	< 0.005	< 0.005	—	49.9
Demolition	—	—	—	—	—	—	0.06	0.06	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.97	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	176	176	0.01	0.01	0.65	179
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	0.10	0.04	2.61	0.64	0.02	0.05	0.62	0.66	0.05	0.17	0.22	—	2,352	2,352	0.04	0.37	5.02	2,469
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	19.8	19.8	< 0.005	< 0.005	0.03	20.1

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	0.01	< 0.005	0.33	0.08	< 0.005	0.01	0.07	0.08	0.01	0.02	0.03	—	284	284	0.01	0.04	0.26	297
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.27	3.27	< 0.005	< 0.005	0.01	3.32
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.06	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	47.0	47.0	< 0.005	0.01	0.04	49.2

3.3. Site Preparation (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.19	1.01	11.9	0.02	0.04	—	0.04	0.04	—	0.04	—	2,065	2,065	0.08	0.02	—	2,072
Dust From Material Movement	—	—	—	—	—	—	2.44	2.44	—	1.17	1.17	—	—	—	—	—	—	—
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 Equipment	0.01	0.01	0.06	0.65	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	113	113	< 0.005	< 0.005	—	114

Dust From Material Movement	—	—	—	—	—	—	0.13	0.13	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	18.7	18.7	< 0.005	< 0.005	—	18.8
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.58	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	106	106	< 0.005	< 0.005	0.39	107
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	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.39	5.39	< 0.005	< 0.005	0.01	5.47
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.89	0.89	< 0.005	< 0.005	< 0.005	0.91

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

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.23	1.20	14.2	0.02	0.05	—	0.05	0.05	—	0.05	—	2,455	2,455	0.10	0.02	—	2,463
Dust From Material Movement	—	—	—	—	—	—	2.77	2.77	—	1.34	1.34	—	—	—	—	—	—	—
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 Equipment	0.04	0.04	0.21	2.54	< 0.005	0.01	—	0.01	0.01	—	0.01	—	437	437	0.02	< 0.005	—	439
Dust From Material Movement	—	—	—	—	—	—	0.49	0.49	—	0.24	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

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.46	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	72.4	72.4	< 0.005	< 0.005	—	72.6
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.04	0.04	—	—	—	—	—	—	—
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	0.05	0.04	0.04	0.77	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	141	141	0.01	< 0.005	0.52	143
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	0.08	0.03	2.20	0.54	0.01	0.04	0.52	0.56	0.04	0.15	0.18	—	1,988	1,988	0.04	0.31	4.24	2,086
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	23.4	23.4	< 0.005	< 0.005	0.04	23.7
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	0.01	0.01	0.41	0.10	< 0.005	0.01	0.09	0.10	0.01	0.03	0.03	—	354	354	0.01	0.06	0.32	371
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.87	3.87	< 0.005	< 0.005	0.01	3.92
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.08	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	58.6	58.6	< 0.005	0.01	0.05	61.5

3.7. Infrastructure Improvement (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	0.20	3.54	10.5	0.02	0.03	—	0.03	0.03	—	0.03	—	1,801	1,801	0.07	0.01	—	1,807
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	0.04	0.04	0.64	1.89	< 0.005	0.01	—	0.01	0.01	—	0.01	—	326	326	0.01	< 0.005	—	327
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.12	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	53.9	53.9	< 0.005	< 0.005	—	54.1
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.41	0.37	0.42	5.09	0.00	0.00	1.14	1.14	0.00	0.27	0.27	—	1,131	1,131	0.05	0.04	0.12	1,145
Vendor	0.05	0.02	1.20	0.37	0.01	0.02	0.29	0.31	0.02	0.08	0.10	—	1,043	1,043	0.02	0.16	0.08	1,090
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.08	0.97	0.00	0.00	0.21	0.21	0.00	0.05	0.05	—	207	207	0.01	0.01	0.35	210
Vendor	0.01	< 0.005	0.22	0.07	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	—	188	188	< 0.005	0.03	0.23	197
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	0.02	0.18	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	34.3	34.3	< 0.005	< 0.005	0.06	34.8
Vendor	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	31.2	31.2	< 0.005	< 0.005	0.04	32.7
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 (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	0.20	3.54	10.5	0.02	0.03	—	0.03	0.03	—	0.03	—	1,801	1,801	0.07	0.01	—	1,807
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-Roa Equipment	0.20	0.20	3.54	10.5	0.02	0.03	—	0.03	0.03	—	0.03	—	1,801	1,801	0.07	0.01	—	1,807
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-Roa d Equipm ent	0.04	0.04	0.65	1.93	< 0.005	0.01	—	0.01	0.01	—	0.01	—	331	331	0.01	< 0.005	—	332
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-Roa d Equipm ent	0.01	0.01	0.12	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	54.9	54.9	< 0.005	< 0.005	—	55.0
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	0.47	0.39	0.38	6.74	0.00	0.00	1.14	1.14	0.00	0.27	0.27	—	1,230	1,230	0.05	0.04	4.52	1,249
Vendor	0.05	0.02	1.14	0.36	0.01	0.02	0.29	0.31	0.02	0.08	0.10	—	1,042	1,042	0.02	0.16	2.96	1,093
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	5.09	0.00	0.00	1.14	1.14	0.00	0.27	0.27	—	1,131	1,131	0.05	0.04	0.12	1,145
Vendor	0.05	0.02	1.20	0.37	0.01	0.02	0.29	0.31	0.02	0.08	0.10	—	1,043	1,043	0.02	0.16	0.08	1,090
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	0.08	0.07	0.08	0.99	0.00	0.00	0.21	0.21	0.00	0.05	0.05	—	211	211	0.01	0.01	0.36	214
Vendor	0.01	< 0.005	0.22	0.07	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	—	192	192	< 0.005	0.03	0.24	201
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	0.02	0.18	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	34.9	34.9	< 0.005	< 0.005	0.06	35.4
Vendor	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	31.7	31.7	< 0.005	< 0.005	0.04	33.2
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 (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	0.20	3.54	10.5	0.02	0.03	—	0.03	0.03	—	0.03	—	1,801	1,801	0.07	0.01	—	1,807
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	0.02	0.02	0.32	0.94	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	162	162	0.01	< 0.005	—	163
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-Roa Equipment	< 0.005	< 0.005	0.06	0.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.8	26.8	< 0.005	< 0.005	—	26.9
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.39	0.35	0.38	4.75	0.00	0.00	1.14	1.14	0.00	0.27	0.27	—	1,107	1,107	0.02	0.04	0.11	1,120
Vendor	0.05	0.02	1.14	0.35	0.01	0.02	0.29	0.31	0.02	0.08	0.10	—	1,026	1,026	0.02	0.16	0.07	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.04	0.45	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	101	101	< 0.005	< 0.005	0.16	102
Vendor	< 0.005	< 0.005	0.10	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	92.3	92.3	< 0.005	0.01	0.11	96.7
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	—	16.7	16.7	< 0.005	< 0.005	0.03	16.9
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	15.3	15.3	< 0.005	< 0.005	0.02	16.0
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 (2026) - Unmitigated

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

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

Off-Roa Equipment	0.10	0.10	0.99	6.65	0.01	0.02	—	0.02	0.02	—	0.02	—	991	991	0.04	0.01	—	995
Paving	0.05	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Roa d Equipm ent	0.10	0.10	0.99	6.65	0.01	0.02	—	0.02	0.02	—	0.02	—	991	991	0.04	0.01	—	995
Paving	0.05	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Roa d Equipm ent	0.03	0.03	0.26	1.73	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	258	258	0.01	< 0.005	—	259
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Roa d Equipm ent	< 0.005	< 0.005	0.05	0.32	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	42.7	42.7	< 0.005	< 0.005	—	42.9
Paving	< 0.005	< 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	0.06	0.05	0.05	0.90	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	172	172	0.01	0.01	0.58	175
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	0.06	0.05	0.05	0.68	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	159	159	< 0.005	0.01	0.02	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
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	—	41.8	41.8	< 0.005	< 0.005	0.07	42.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.92	6.92	< 0.005	< 0.005	0.01	7.01
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. Architectural Coating (2026) - Unmitigated

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

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

Off-Road Equipm	0.02	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.21	0.32	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	43.9	43.9	< 0.005	< 0.005	—	44.0
Architectural Coatings	0.11	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	< 0.005	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.27	7.27	< 0.005	< 0.005	—	7.29
Architectural Coatings	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.15	0.14	2.51	0.00	0.00	0.46	0.46	0.00	0.11	0.11	—	481	481	0.02	0.02	1.63	488
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	0.16	0.14	0.15	1.90	0.00	0.00	0.46	0.46	0.00	0.11	0.11	—	443	443	0.01	0.02	0.04	448
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	0.05	0.05	0.65	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	147	147	< 0.005	0.01	0.23	149
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	0.12	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	24.4	24.4	< 0.005	< 0.005	0.04	24.7
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

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unenclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unenclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unenclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	1,121	1,121	0.04	0.01	—	1,123
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	367	367	0.01	< 0.005	—	368
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,488	1,488	0.06	0.01	—	1,491
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unenclo Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	1,121	1,121	0.04	0.01	—	1,123
Enclose d Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	367	367	0.01	< 0.005	—	368
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,488	1,488	0.06	0.01	—	1,491
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unenclo sed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	186	186	0.01	< 0.005	—	186
Enclose d Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	60.8	60.8	< 0.005	< 0.005	—	60.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	246	246	0.01	< 0.005	—	247

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unenclo sed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unenclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unenclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.61	1.48	0.08	9.04	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.2	37.2	< 0.005	< 0.005	—	37.3
Total	1.62	1.50	0.08	9.04	< 0.005	0.02	—	0.02	0.01	—	0.01	—	37.2	37.2	< 0.005	< 0.005	—	37.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landsca Equipment	0.20	0.19	0.01	1.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.21	4.21	< 0.005	< 0.005	—	4.23
Total	0.20	0.19	0.01	1.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.21	4.21	< 0.005	< 0.005	—	4.23

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	3.15	3.15	< 0.005	< 0.005	—	3.15
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	3.15	3.15	< 0.005	< 0.005	—	3.15
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	3.15	3.15	< 0.005	< 0.005	—	3.15
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	0.00	3.15	3.15	< 0.005	< 0.005	—	3.15
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.52	0.52	< 0.005	< 0.005	—	0.52
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.52	0.52	< 0.005	< 0.005	—	0.52

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unenclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

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

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

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	4/1/2025	6/1/2025	5.00	44.0	—
Site Preparation	Site Preparation	6/2/2025	6/29/2025	5.00	20.0	—
Grading	Grading	6/30/2025	9/28/2025	5.00	65.0	—
Infrastructure Improvement	Building Construction	10/1/2025	12/31/2025	5.00	66.0	—
Building Construction	Building Construction	9/29/2025	2/15/2026	5.00	100	—
Paving	Paving	2/16/2026	6/28/2026	5.00	95.0	—
Architectural Coating	Architectural Coating	2/16/2026	7/31/2026	5.00	120	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.00	8.00	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Demolition	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00	8.00	84.0	0.37

Site Preparation	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	7.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	7.00	84.0	0.37
Infrastructure Improvement	Cranes	Diesel	Tier 4 Final	1.00	6.00	367	0.29
Infrastructure Improvement	Forklifts	Diesel	Tier 4 Final	1.00	6.00	82.0	0.20
Infrastructure Improvement	Generator Sets	Diesel	Tier 4 Final	1.00	8.00	14.0	0.74
Infrastructure Improvement	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	6.00	84.0	0.37
Infrastructure Improvement	Welders	Diesel	Tier 4 Final	3.00	8.00	46.0	0.45
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Tier 4 Final	1.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Tier 4 Final	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Tier 4 Final	3.00	8.00	46.0	0.45
Paving	Cement and Mortar Mixers	Diesel	Tier 4 Final	1.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Tier 4 Final	1.00	6.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	1.00	7.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	8.00	84.0	0.37
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	12.5	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	34.1	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	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	10.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	28.8	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Infrastructure Improvement	—	—	—	—
Infrastructure Improvement	Worker	87.3	18.5	LDA,LDT1,LDT2
Infrastructure Improvement	Vendor	34.1	10.2	HHDT,MHDT
Infrastructure Improvement	Hauling	0.00	20.0	HHDT
Infrastructure Improvement	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	87.3	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	34.1	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT

Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	12.5	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	34.9	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	3,450	383	4,600

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	6,005	—
Site Preparation	—	—	18.8	0.00	—

Grading	—	15,000	65.0	0.00	—
Paving	0.00	0.00	0.00	0.00	1.76

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unenclosed Parking with Elevator	1.76	100%
Enclosed Parking with Elevator	0.00	100%

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	873	0.03	< 0.005
2026	0.00	873	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
Unenclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	3,450	383	4,600

5.10.3. Landscape Equipment

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

5.11. Operational Energy Consumption

5.11.1. Unmitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unenclosed Parking with Elevator	468,419	873	0.0330	0.0040	0.00
Enclosed Parking with Elevator	153,401	873	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unenclosed Parking with Elevator	0.00	247,856
Enclosed Parking with Elevator	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unenclosed Parking with Elevator	0.00	—
Enclosed Parking with Elevator	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

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

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

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

5.16.2. Process Boilers

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

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit

Temperature and Extreme Heat	25.6	annual days of extreme heat
Extreme Precipitation	2.20	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	1.19	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	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	3	1	1	3
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	97.0
AQ-PM	91.0
AQ-DPM	96.0
Drinking Water	77.4
Lead Risk Housing	81.5
Pesticides	0.00
Toxic Releases	56.7

Traffic	68.2
Effect Indicators	—
CleanUp Sites	88.4
Groundwater	85.1
Haz Waste Facilities/Generators	84.9
Impaired Water Bodies	0.00
Solid Waste	9.67
Sensitive Population	—
Asthma	91.3
Cardio-vascular	96.4
Low Birth Weights	87.6
Socioeconomic Factor Indicators	—
Education	63.6
Housing	78.7
Linguistic	59.8
Poverty	78.0
Unemployment	73.4

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	19.49185166
Employed	2.130116771
Median HI	5.556268446
Education	—
Bachelor's or higher	24.75298345
High school enrollment	3.772616451

Preschool enrollment	1.873476197
Transportation	—
Auto Access	5.158475555
Active commuting	87.77107661
Social	—
2-parent households	12.6780444
Voting	1.976132427
Neighborhood	—
Alcohol availability	14.92364943
Park access	81.35506224
Retail density	97.92121134
Supermarket access	80.46965225
Tree canopy	28.26895932
Housing	—
Homeownership	6.236365969
Housing habitability	31.64378288
Low-inc homeowner severe housing cost burden	85.70511998
Low-inc renter severe housing cost burden	42.52534326
Uncrowded housing	31.19466188
Health Outcomes	—
Insured adults	13.22982163
Arthritis	30.2
Asthma ER Admissions	5.5
High Blood Pressure	19.3
Cancer (excluding skin)	57.8
Asthma	12.1
Coronary Heart Disease	23.5
Chronic Obstructive Pulmonary Disease	8.5

Diagnosed Diabetes	35.6
Life Expectancy at Birth	4.5
Cognitively Disabled	15.2
Physically Disabled	10.8
Heart Attack ER Admissions	10.1
Mental Health Not Good	13.8
Chronic Kidney Disease	35.4
Obesity	8.0
Pedestrian Injuries	90.5
Physical Health Not Good	18.1
Stroke	17.3
Health Risk Behaviors	—
Binge Drinking	33.9
Current Smoker	4.4
No Leisure Time for Physical Activity	19.3
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	78.7
Elderly	45.2
English Speaking	52.7
Foreign-born	22.8
Outdoor Workers	43.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	47.5
Traffic Density	69.5
Traffic Access	71.3
Other Indices	—

Hardship	79.2
Other Decision Support	—
2016 Voting	17.3

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	98.0
Healthy Places Index Score for Project Location (b)	1.00
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Project Area 1.66 ac + 0.1 ac of off site improvements
Construction: Construction Phases	Project Schedule
Construction: Off-Road Equipment	Final EIR MM A-2 requiring Tier 4 or better