



Air Quality Assessment

7825 San Leandro Street Project

Prepared for:

Blair Rushing
Prologis, Inc.
Pier 1, Bay 1,
San Francisco, CA 94111

Prepared by:

Kimley-Horn and Associates, Inc.
660 S. Figueroa Street, Suite 2050
Los Angeles, CA 90014
213.261.4040

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List of Abbreviated Terms

AQMP	air quality management plan
AB	Assembly Bill
ADT	average daily traffic
Bay Area Air District	Bay Area Air Quality Management District
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
CEQA	California Environmental Quality Act
CO	carbon monoxide
cy	cubic yards
DPM	diesel particulate matter
DRRP	Diesel-Fueled Engines and Vehicles
EV	Electric vehicle
FCAA	Federal Clean Air Act
H ₂ S	hydrogen sulfide
Pb	lead
µg/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
SFBAAB	San Francisco Bay Area Air Basin
sf	square foot
SO ₄₋₂	sulfates
SO ₂	sulfur dioxide
TAC	toxic air contaminant
C ₂ H ₃ Cl	vinyl chloride
U.S. EPA	United States Environmental Protection Agency
VOC	volatile organic compound

1.0 INTRODUCTION

This report documents the results of an Air Quality Assessment completed for 7825 San Leandro Street Project (Project). The purpose of this analysis is to identify the air quality emissions associated with construction and operations of the Project and determine the level of impact the Project would have on the environment.

1.1 Project Location

The Project site comprises approximately 14.9-acres located at 7825 San Leandro Street, in the City of Oakland, California; refer to [Exhibit 1: Regional Vicinity](#) and [Exhibit 2: Site Vicinity](#). The Project site consists of 14 parcels (Assessor Parcel Numbers [APNs]: 041 417500302, 041 417501800, 041 417501600, 041 417501000, 041 417500600, 041 417500500, 041 417501700, 041 417501900, 041 42000102, 041 420900700, 041 420900101, 041 420900302, 041 420800100, and 041 420900801). The Project site is bound by Hegenberger Road to the north, San Leandro Street to the east, existing commercial uses and the Elmhurst Creek canal to the south, and train tracks to the west. Project site is zoned as General Industrial (IG) and Commercial Industrial Mix-2 (CIX-2) districts with General Plan land use designations of Business Mix and General Industry and Transportation.

1.2 Project Description

The Project proposes to construction an approximately 311,000 square foot (sf) industrial building. The Applicant proposes a speculative warehouse at this time, as the future tenant and nature of the ultimate use are currently unknown. The main building entrance and employee amenity space would be located at the northern end of the building. The new facility would include up to 20,000 square feet of accessory office space with an additional 5,000 square feet of accessory office space would be provided at a mezzanine level; refer to [Exhibit 3: Site Plan](#). The eastern side of the warehouse would include 43 loading dock doors. In addition, the Project would include three vehicle parking lots to the north, east and south of the warehouse building on the Project site. The auto parking spaces would include 105 standard spaces, 10 standard electric vehicle (EV) ready spaces, 104 EV capable spaces equipped for future electric charging stations, five ADA accessible car spaces, one EV ready ADA accessible car space, two ADA accessible van spaces, and one EV ready van space.

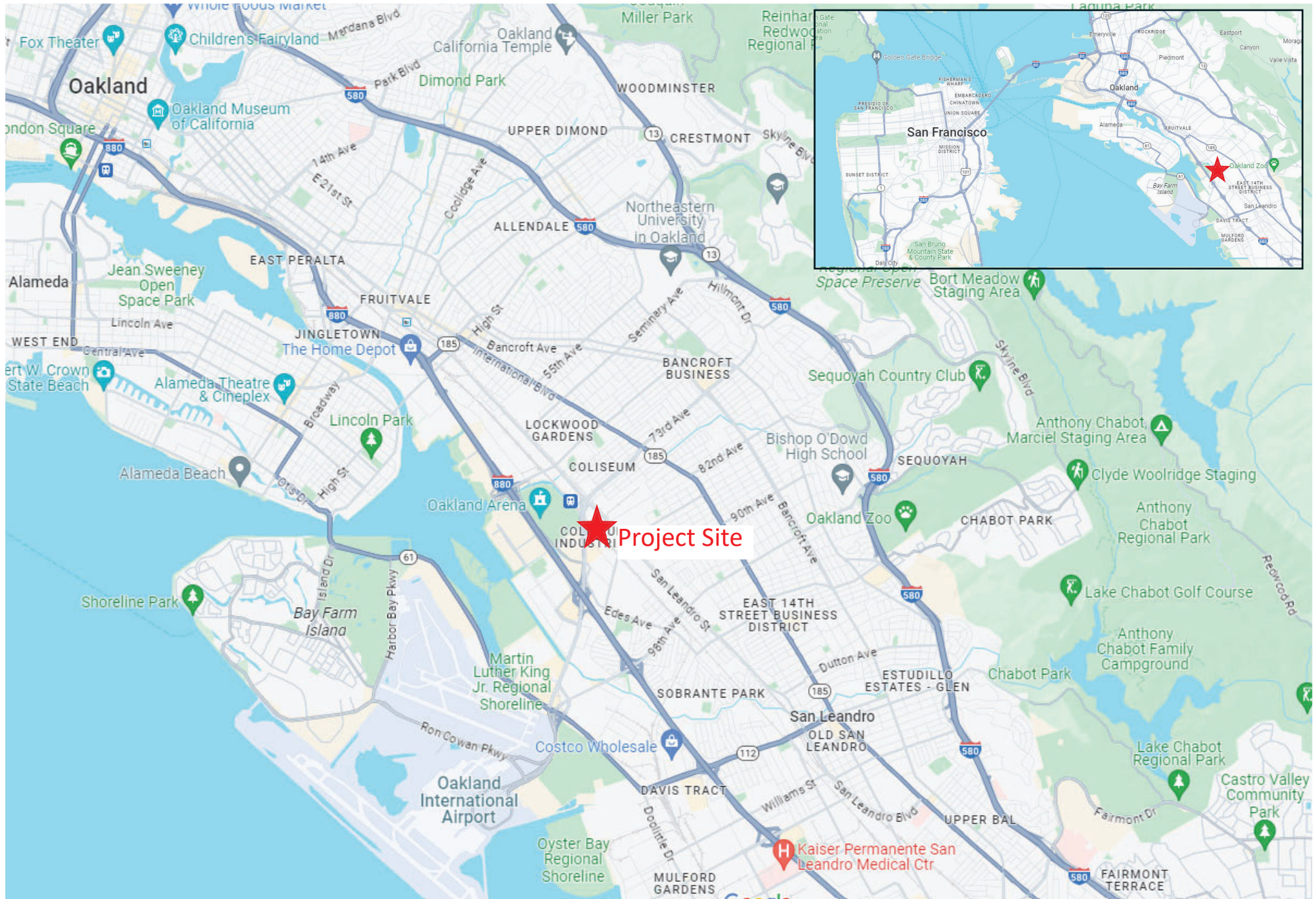
Automobile access would be provided via three driveways on the east side of the Project site from San Leandro Street. Trucks would access the site utilizing the southern driveways along San Leandro Street. Passenger vehicles would access the site through the northern driveway along San Leandro Street intersecting with 77th Avenue. Passenger vehicles would use this driveway to access the north employee parking area via the internal drive aisles along the western, southern, and eastern boundaries of the proposed warehouse building.

Hours of Operation

The tenant(s) of the warehouse facility has not been identified; therefore, the precise nature of facility operations cannot be determined at this time. Any future occupant would be required to adhere to the pertinent City regulations. For the purposes of this analysis, the hours of operation are assumed to be 7 days a week, 24 hours per day.

Construction Activities

Construction of the Project is anticipated to begin in April 2027 with a construction duration of approximately 22 months. Construction of the Project would require approximately 646,343 sf of hardscape demolition. Earthwork activities would require approximately 2,100 cubic yards (cy) of soil remediation export and 18,806 cy of import. Construction of the Project would require the following phases: demolition, site preparation, grading, infrastructure improvements, building construction, paving, and architectural coatings.



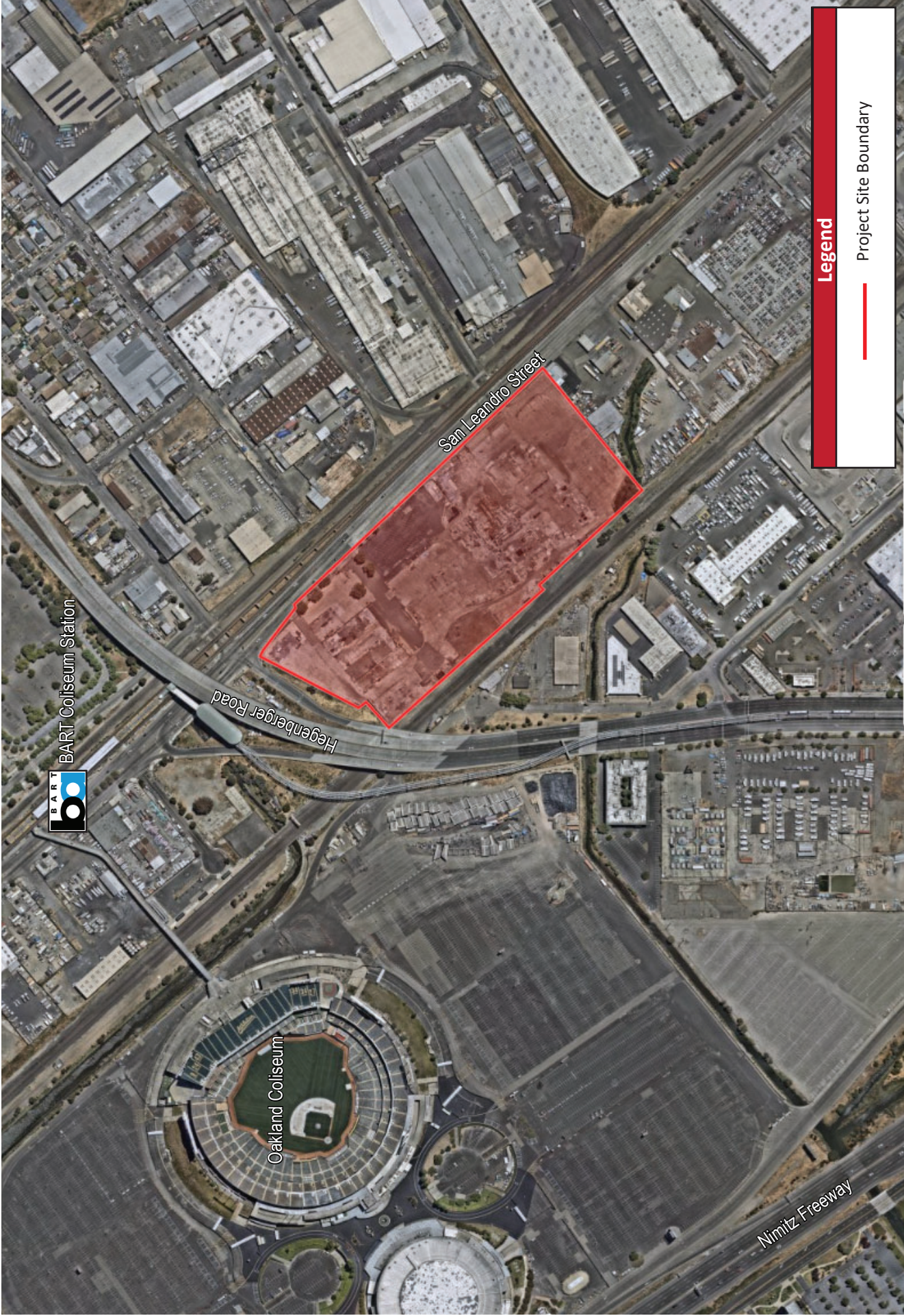
Source: Google Earth, 2024

Exhibit 1: Regional Vicinity
7825 San Leandro Street Project
Technical Reports



Not to scale

Kimley»Horn



Source: Google Earth, 2024

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. The Project is located within the San Francisco Bay Area Air Basin (SFBAAB, Air Basin, or Basin). This Basin comprises all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties, the southern portion of Sonoma County, and the southwestern portion of Solano County. Air quality in this area is determined by natural factors such as topography, meteorology, and climate, in addition to the presence of existing air pollution sources and ambient conditions. These factors along with applicable regulations are discussed below. The Bay Area Air District is responsible for local control and monitoring of criteria air pollutants throughout the Basin.

Climate, or the average weather condition, affects air quality in several ways. Wind patterns can remove or add air pollutants emitted by stationary or mobile sources. Inversion, a condition where warm air traps cooler air underneath it, can hold pollutants near the ground by limiting upward mixing (dilution). Topography also affects the local climate, as valleys often trap emissions by limiting lateral dispersal.

The inversions typical of winter, called radiation inversions, are formed as heat quickly radiates from the earth's surface after sunset, causing the air in contact with it to rapidly cool. Radiation inversions are strongest on clear, low-wind, cold winter nights, allowing the build-up of such pollutants as carbon monoxide (CO), and particulate matter. When wind speeds are low, there is little mechanical turbulence to mix the air, resulting in a layer of warm air over a layer of cooler air next to the ground. During radiation inversions downwind transport is slow, the mixing depths are shallow, and turbulence is minimal, all factors which contribute to ozone (O₃) formation.

The frequency of hot, sunny days during the summer months in the Basin is another important factor that affects air pollution potential. It is at the higher temperatures that O₃ is formed. In the presence of ultraviolet sunlight and warm temperatures, reactive organic gases (ROG) and oxides of nitrogen react to form secondary photochemical pollutants, including O₃.

The climate is dominated by the location and strength of a semi-permanent, subtropical high-pressure cell. In the summer, the Pacific cell is centered over the northeastern Pacific Ocean, resulting in stable meteorological conditions and a steady northwesterly wind flow. Upwelling of cold ocean water from below the surface because of the northwesterly flow produces a band of cold water off the coast which results in condensation and the presence of fog and stratus clouds along the coast. In the winter, the high-pressure cell weakens and shifts southward, resulting in increased wind flow offshore, the absence of upwelling, and the occurrence of storms.

The Basin is characterized by moderately wet winters (November through March) and dry summers. The rainfall in the mountains reaches 40 inches while the valley sees less than 16 inches. Generally, coastal temperatures can be 35 degrees Fahrenheit cooler than temperatures 15 to 20 miles inland. At night, this contrast usually decreases to less than 10 degrees Fahrenheit. In the winter, the relationship of minimum and maximum temperatures is reversed.

The Project site is located in the City of Oakland in Alameda County, on the northern perimeter of the San Francisco Bay. The City of Oakland has a generally mild climate, with average temperatures in the low 70's Fahrenheit in the summer and high 50's Fahrenheit in the winter. The annual rainfall is approximately 24 inches in the City, primarily between November and mid-April. The regulatory section below discusses the regulations in the place to reduce adverse health and nuisance impacts from air emissions on nearby receptors.

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 (SO₂), coarse particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), and lead are primary air pollutants. Of these, CO, NO_x, SO₂, PM₁₀, and PM_{2.5} are primary criteria pollutants. ROG and NO_x are criteria pollutant precursors and form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. For example, the criteria pollutant ozone (O₃) is formed by a chemical reaction between ROG and NO_x in the presence of sunlight. O₃ and nitrogen dioxide (NO₂) 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](#).

O₃, or smog, is not emitted directly into the environment, but is formed in the atmosphere by complex chemical reactions between ROG and NO_x in the presence of sunlight. O₃ formation is greatest on warm, windless, sunny days. The main sources of NO_x and ROG, often referred to as O₃ precursors, are combustion processes (including motor vehicle engines) the evaporation of solvents, paints, and fuels, and biogenic sources. Automobiles are the single largest source of O₃ precursors in the Basin. Tailpipe emissions of ROG are highest during cold starts, hard acceleration, stop-and-go conditions, and slow speeds. They decline as speeds increase up to about 50 miles per hour (mph), then increase again at high speeds and high engine loads. ROG emissions associated with evaporation of unburned fuel depend on vehicle and ambient temperature cycles. NO_x emissions exhibit a different curve; emissions decrease as the vehicle approaches 30 mph and then begin to increase with increasing speeds.

O₃ levels usually build up during the day and peak in the afternoon hours. Short-term exposure can irritate the eyes and cause constriction of the airways. Besides causing shortness of breath, it can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema. Chronic exposure to high O₃ levels can permanently damage lung tissue. O₃ can also damage plants and trees, and materials such as rubber and fabrics.

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.

Table 1: Air Contaminants and Associated Public Health Concerns		
Pollutant	Major Man-Made Sources	Human Health Effects
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, cement manufacturing, metal processing facilities, locomotives, and ships.	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid which can damage marble, iron and steel. Damages crops and natural vegetation. Impairs visibility. Precursor to acid rain.
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO 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).		
Source: U.S. EPA, <i>Criteria Air Pollutants</i> , https://www.epa.gov/criteria-air-pollutants accessed March 2025.		

Toxic Air Contaminants

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

CARB identified diesel particulate matter (DPM) as a toxic air contaminant. DPM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances. Diesel exhaust is a complex mixture of particles and gases produced when an engine burns diesel fuel. DPM is a concern because it causes lung cancer; many compounds found in diesel exhaust are

carcinogenic. DPM includes the particle-phase constituents in diesel exhaust. The chemical composition and particle sizes of DPM vary between different engine types (heavy-duty, light-duty), engine operating conditions (idle, accelerate, decelerate), fuel formulations (high/low sulfur fuel), and the year of the engine. Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and diesel exhaust can cause coughs, headaches, light-headedness, and nausea. DPM poses the greatest health risk among the TACs. Almost all diesel exhaust particle mass is 10 microns or less in diameter. Due to their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

Odors

Although offensive odors rarely cause physical harm, they can be unpleasant and lead to considerable distress among the public. This distress often generates citizen complaints to local governments and air districts. According to Bay Area Air District's California Environmental Quality Act (CEQA) Guidelines and CARB's Air Quality and Land Use Handbook, land uses associated with odor complaints typically include wastewater treatment plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, chemical plants, petroleum refineries, auto body shops, coating operations, fiberglass manufacturing plants, foundries, rendering plants, and livestock operations. Bay Area Air District provides recommended screening distances for citing new receptors near existing odor sources.

Ambient Air Quality

CARB monitors ambient air quality at approximately 250 air monitoring stations across the State. These stations usually measure pollutant concentrations ten feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. Existing ambient air quality levels, historical trends, and projections near the Project are documented by measurements made by the Bay Area Air District's air pollution regulatory agency that maintains air quality monitoring stations, which process ambient air quality measurements.

O₃, and particulate matter (PM₁₀, and PM_{2.5}) are pollutants of concern in the Basin. The closest air monitoring station to the Project that monitors ambient concentrations of these pollutants is the Laney College Monitoring Station (located approximately 4.8 miles to the northwest). The second closest is the Oakland-West Monitoring Station (located approximately 6.4 miles to the northwest). PM₁₀ is not measured at either monitoring station in Oakland. Local air quality data from 2020 to 2022 are provided in [Table 2: Ambient Air Quality Data](#), which lists the monitored maximum concentrations and number of exceedances of state or federal air quality standards for each year.

Table 2: Ambient Air Quality Data			
Criteria Pollutant¹	2020	2021	2022
Ozone (O₃)			
1-hour Maximum Concentration (ppm)	0.084	0.067	0.054
8-hour Maximum Concentration (ppm)	0.056	0.046	0.041
<i>Number of Days Standard Exceeded</i>			
CAAQS 1-hour (>0.09 ppm)	0	0	0
NAAQS 8-hour (>0.070 ppm)	0	0	0
Carbon Monoxide (CO)			
1-hour Maximum Concentration (ppm)	3.163	2.290	2.167
<i>Number of Days Standard Exceeded</i>			

Table 2: Ambient Air Quality Data			
NAAQS 1-hour (>35 ppm)	-	-	-
CAAQS 1-hour (>20 ppm)	-	-	-
Nitrogen Dioxide (NO₂)			
1-hour Maximum Concentration (ppm)	0.049	0.049	0.043
<i>Number of Days Standard Exceeded</i>			
NAAQS 1-hour (>100 ppm)	-	-	-
CAAQS 1-hour (>0.18 ppm)	-	-	-
Particulate Matter Less Than 10 Microns (PM₁₀)			
National 24-hour Maximum Concentration	-	-	-
State 24-hour Maximum Concentration	-	-	-
State Annual Average Concentration (CAAQS=20 µg/m ³)	-	-	-
<i>Number of Days Standard Exceeded</i>			
NAAQS 24-hour (>150 µg/m ³)	-	-	-
CAAQS 24-hour (>50 µg/m ³)	-	-	-
Particulate Matter Less Than 2.5 Microns (PM_{2.5})			
National 24-hour Maximum Concentration	159.7	25.4	33.8
State 24-hour Maximum Concentration	159.7	25.4	33.8
<i>Number of Days Standard Exceeded</i>			
NAAQS 24-hour (>35 µg/m ³)	8.5	0	0
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			
1. Measurements taken at the Oakland-Laney College Station at Laney College Eighth St. (CARB#60351) and Oakland – West Station at 1100 21 st Street (CARB#94607)			
Source: All pollutants, except CO and NO ₂ , measurements are from the CARB Aerometric Data Analysis and Management system database (https://www.arb.ca.gov/adam). CO and NO ₂ measurements were retrieved from the CARB Air Quality and Meteorological Information system https://www.arb.ca.gov/aqmis2/aqdselect.ph , accessed March 2025.			

2.3 Sensitive Receptors

Sensitive populations are more susceptible to the effects of air pollution than is the general population. Sensitive receptors that are in proximity to localized sources of toxics are of particular concern. Land uses considered sensitive receptors include residences, schools, playgrounds, childcare centers, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. Consistent with the Bay Area Air District CEQA Air Quality Guidelines (April 2022), sensitive receptors are defined as facilities or land uses that house or attract children, the elderly, people with illnesses, or others who are especially vulnerable to the effects of air pollutants. The nearest sensitive receptor to the Project site is the single-family residence located approximately 625 feet to the northeast. Sensitive land uses nearest to the Project are shown in [Table 3: Sensitive Receptors](#).

Table 3: Sensitive Receptors	
Receptor Description	Distance and Direction from the Project
1. Single Family Residence ²	625 feet northeast
2. Temporary Shelter for the Unhoused ³	730 feet west
1. Distance measured from the Project boundary line to the property line of the sensitive receptor.	
2. Residence is located at 867 75 th Avenue.	
3. The City of Oakland Environmental Justice Element (2023) identified the temporary shelter for unhoused persons as a sensitive land use.	
Source: Google Earth, 2025.	

3.0 REGULATORY SETTING

3.1 Federal

Air quality is federally protected by the Federal Clean Air Act (FCAA) and its amendments. Under the FCAA, the U.S. Environmental Protection Agency (U.S. EPA) developed the primary and secondary National Ambient Air Quality Standards (NAAQS) for the criteria air pollutants including ozone, NO₂, CO, SO₂, PM₁₀, PM_{2.5}, and lead. Depending on whether the NAAQS are met or exceeded, the local air basin is classified as in “attainment” or “nonattainment.” Some areas are unclassified, which means no monitoring data are available. Unclassified areas are considered to be in attainment. Proposed projects in or near nonattainment areas could be subject to more stringent air-permitting requirements. The FCAA requires that each state prepare a State Implementation Plan (SIP) to demonstrate how it will attain the NAAQS within the federally imposed deadlines.

The U.S. EPA has designated enforcement of air pollution control regulations to the individual states. Applicable NAAQS are summarized in [Table 4: State and National Ambient Air Quality Standards](#).

Corporate Average Fuel Economy Standards

In October 2012, the U.S. EPA and the National Highway Traffic Safety Administration (NHTSA), on behalf of the Department of Transportation, issued final rules to further reduce greenhouse gas (GHG) emissions and improve corporate average fuel economy (CAFE) standards for light-duty vehicles for model years 2017 and beyond (77 Federal Register [FR] 62624). NHTSA’s CAFE standards have been enacted under the Energy Policy and Conservation Act since 1978. This national program requires automobile manufacturers to build a single light-duty national fleet that meets all requirements under both federal programs and the standards of California and other states. This program would increase fuel economy to the equivalent of 54.5 miles per gallon (mpg) limiting vehicle emissions to 163 grams of carbon dioxide (CO₂) per mile for the fleet of cars and light-duty trucks by model year 2025. In August 2022, NHTSA announced that it intends to prepare an environmental impact statement to analyze the potential environmental impacts of new CAFE standards for model years 2027 and beyond for passenger cars and light trucks, and new fuel efficiency standards for model years 2029 and beyond for heavy-duty pickup trucks and vans. In July 2023, the NHTSA officially proposed the new CAFE standards and invited public comments.

Federal Emissions Standards for On-Road Trucks

To reduce emissions from on-road, heavy-duty diesel trucks, the U.S. EPA established a series of increasingly strict emission standards for new engines, starting in 1988. The U.S. EPA promulgated the final and cleanest standards with the 2007 Heavy-Duty Highway Rule.¹ The particulate matter (PM) emission standard of 0.01 gram per horsepower-hour (g/hp-hr) is required for new vehicles beginning with model year 2007. Also, the nitrogen oxide (NO_x) and nonmethane hydrocarbon (NMHC) standards of 0.20 g/hp-hr and 0.14 g/hp-hr, respectively, were phased in together between 2007 and 2010 on a percent of sales basis: 50 percent from 2007 to 2009 and 100 percent in 2010. In December 2022, the U.S. EPA final rule set new, more stringent standards to reduce NO_x pollution from heavy-duty vehicles and engines starting in model year 2027. The rule will reduce NO_x

¹ United States Environmental Protection Agency (U.S. EPA), Control of Air Pollution from New Motor Vehicles: Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements, Final Rule. 40 Code of Federal Regulations, Parts 69, 80, and 86. January 18, 2001.

emissions from heavy-duty trucks by almost 50 percent by 2045, producing significant health-related benefits.²

Emission Standards for Off-Road Diesel Engines

To reduce emissions from off-road diesel equipment, the U.S. EPA established a series of cleaner emission standards for new off-road diesel engines. Tier 1 standards were phased in from 1996 to 2000 (year of manufacture), depending on the engine horsepower category. Tier 2 standards were phased in from 2001 to 2006. Tier 3 standards were phased in from 2006 to 2008. Tier 1 through Tier 3 standards are to be increasingly more stringent, respectively, and vary by pollutant and engine size. Tier 4 standards, which are incorporated into manufacturing of new equipment or attained through add-on emission control equipment, were phased in from 2008 to 2015. The Tier 4 standards require that emissions of PM and NO_x be further reduced by about 90 percent from Tier 3 standards. CARB is currently developing potential amendments to the off-road diesel engine standards, in a Tier 5 rulemaking. The Tier 5 rulemaking aims to reduce NO_x and PM emissions from new, off-road compression-ignition (CI) engines, by an additional 50 percent to 90 percent, compared to what is allowed by today's Tier 4 final emission 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. The CAAQS, 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. In general, the Bay Area experiences low concentrations of most pollutants when compared to NAAQS, except for O₃ and PM, for which standards are exceeded periodically. With respect to NAAQS, the Bay Area's attainment status for 8-hour O₃ is classified as "marginal nonattainment" and "nonattainment" for PM_{2.5}. The region is also considered to be in nonattainment with the CAAQS for PM₁₀ and PM_{2.5}. Area sources generate the majority of these airborne particulate emissions. The Basin is considered in attainment or unclassified with respect to the CO, NO₂ and SO₂ NAAQS and CAAQS.

The California Clean Air Act (CCAA), which was approved in 1988, requires that each local air district prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with CAAQS. These AQMPs also serve as the basis for the preparation of the SIP for meeting NAAQS for the State of California. Like the U.S. EPA, CARB also designates areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data shows that a CAAQS 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 CAAQS, and are not used as a basis for designating areas as nonattainment.

2 United States Environmental Protection Agency (U.S. EPA), Control of Air Pollution from New Motor Vehicles: Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements, Final Rule. 40 Code of Federal Regulations, s 2, 59, 60, 80, 85, 86, 600, 1027, 1030, 1031, 1033, 1036, 1037, 1039, 1042, 1043, 1045, 1048, 1051, 1054, 1060, 1065, 1066, 1068, and 1090. January 24, 2023.

Table 4: State and National Ambient Air Quality Standards

Pollutant	Averaging Time	State Standards ¹		National Standards ²	
		Concentration	Attainment Status	Concentration	Attainment Status
Ozone (O ₃)	8 Hour	0.070 ppm (137 µg/m ³)	N	0.070 ppm	N ⁵
	1 Hour	0.09 ppm (180 µg/m ³)	N ⁹	NA	N/A ⁴
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10 mg/m ³)	A	9 ppm (10 mg/m ³)	A ⁶
	1 Hour	20 ppm (23 mg/m ³)	A	35 ppm (40 mg/m ³)	A
Nitrogen Dioxide (NO ₂)	1 Hour	0.18 ppm (339 µg/m ³)	A	0.10 ppm ¹¹	A
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)	-	0.053 ppm (100 µg/m ³)	A
Sulfur Dioxide (SO ₂)	24 Hour	0.04 ppm (105 µg/m ³)	A	0.14 ppm (365 µg/m ³)	A
	1 Hour	0.25 ppm (655 µg/m ³)	A	0.075 ppm (196 µg/m ³)	A
	Annual Arithmetic Mean	NA	-	0.03 ppm (80 µg/m ³)	A
Particulate Matter (PM ₁₀)	24-Hour	50 µg/m ³	N ⁷	150 µg/m ³	U
	Annual Arithmetic Mean	20 µg/m ³	N	NA	-
Fine Particulate Matter (PM _{2.5})	24-Hour	NA	-	35 µg/m ³	U/A ¹⁰
	Annual Arithmetic Mean	12 µg/m ³	N ⁷	9 µg/m ³	N
Sulfates (SO ₄₋₂)	24 Hour	25 µg/m ³	A	NA	-
Lead (Pb)	30-Day Average	1.5 µg/m ³	-	NA	A
	Calendar Quarter	NA	-	1.5 µg/m ³	A
	Rolling 3-Month Average	NA	-	0.15 µg/m ³	-
Hydrogen Sulfide (H ₂ S)	1 Hour	0.03 ppm (0.15 µg/m ³)	U	NA	-
Vinyl Chloride (C ₂ H ₃ Cl)	24 Hour	0.01 ppm (26 µg/m ³)	-	NA	-
Visibility Reducing Particles	8 Hour (10:00 to 18:00 PST)	-	U	-	-

A = attainment; N = nonattainment; U = unclassified; N/A = not applicable or no applicable standard; ppm = parts per million; µg/m³ = micrograms per cubic meter; mg/m³ = milligrams per cubic meter; - = not indicated or no information available.

1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, suspended particulate matter - PM₁₀, 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 PM₁₀ annual standard), then some measurements may be excluded. In particular, measurements are excluded that CARB determines would occur less than once per year on the average. The Lake Tahoe CO 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 ozone, particulates and those based on annual averages are not to be exceeded more than once a year. The 1-hour ozone 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 ozone standard is attained when the 3-year average of the 4th highest daily concentrations is 0.070 ppm (70 ppb) or less. The 24-hour PM₁₀ standard is attained when the 3-year average of the 99th percentile of monitored concentrations is less than 150 µg/m³. The 24-hour PM_{2.5} standard is attained when the 3-year average of 98th percentiles is less than 35 µg/m³.
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 PM₁₀ 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.
3. National air quality standards are set by the U.S. EPA at levels determined to be protective of public health with an adequate margin of safety.
4. The national 1-hour ozone standard was revoked by U.S. EPA on June 15, 2005.
5. On October 1, 2015, the national 8-hour ozone 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 ozone 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 ozone level in the area.

6. In April 1998, the Bay Area was redesignated to attainment for the national 8-hour carbon monoxide standard.
7. In June 2002, CARB established new annual standards for PM_{2.5} and PM₁₀.
8. Statewide VRP Standard (except Lake Tahoe Air Basin): Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer when the relative humidity is less than 70 percent. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.
9. The 8-hour CA ozone standard was approved by the Air Resources Board on April 28, 2005, and became effective on May 17, 2006.
10. On January 9, 2013, U.S. EPA issued a final rule to determine that the Bay Area attains the 24-hour PM_{2.5} national standard. This U.S. EPA rule suspends key SIP requirements as long as monitoring data continues to show that the Bay Area attains the standard. Despite this U.S. EPA action, the Bay Area will continue to be designated as “nonattainment” for the national 24-hour PM_{2.5} standard until such time as the Air District submits a “redesignation request” and a “maintenance plan” to U.S. EPA, and U.S. EPA approves the proposed redesignation.
11. To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100ppm (effective January 22, 2010). The U.S. EPA expects to make a designation for the Bay Area by the end of 2017.
12. On June 2, 2010, the U.S. EPA established a new 1-hour SO₂ 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 SO₂ NAAQS however must continue to be used until one year following U.S. EPA initial designations of the new 1-hour SO₂ NAAQS.
13. 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.
14. National lead standard, rolling 3-month average: final rule signed October 15, 2008. Final designations effective December 31, 2011.
15. In December 2012, U.S. EPA strengthened the annual PM_{2.5} National Ambient Air Quality Standards (NAAQS) from 15.0 to 12.0 micrograms per cubic meter (µg/m³). In December 2014, U.S. EPA issued final area designations for the 2012 primary annual PM_{2.5} NAAQS. Areas designated “unclassifiable/attainment” must continue to take steps to prevent their air quality from deteriorating to unhealthy levels. The effective date of this standard is April 15, 2015.

Source: : Bay Area Air Quality Management District, *Air Quality Standards and Attainment Status*, <http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status>, accessed March 2025.

Diesel Risk Reduction Plan

The identification of DPM as a TAC in 1998 led CARB to adopt the *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles* (DRRP) in October 2000. The DRRP's goals include an 85 percent reduction in DPM by 2020 from the 2000 baseline³. CARB estimates that emissions of DPM in 2035 will be less than half those in 2010, further reducing statewide cancer risk and non-cancer health effects.⁴ The DRRP includes regulations to establish cleaner new diesel engines, cleaner in-use diesel engines (retrofits), and cleaner diesel fuel.

Truck and Bus Regulation Reducing Emissions from Existing Diesel Vehicles

On December 12, 2008, CARB approved the Truck and Bus Regulation to significantly reduce PM and NO_x emissions from existing diesel vehicles operating in California. The regulation requires PM retrofits on all diesel trucks and buses that operate in California (i.e., existing vehicles are required to be upgraded to reduce emissions). Heavier trucks must be retrofitted with PM filters beginning January 1, 2012, and older trucks must be replaced starting January 1, 2015. As of January 1, 2023, nearly all trucks and buses must have 2010 model year engines or equivalent.

The regulation applies to most diesel-fueled trucks and buses and to privately and publicly owned school buses with a gross vehicle weight rating (GVWR) greater than 14,000 pounds. Small fleets with three or fewer diesel trucks can delay compliance for heavier trucks and there are several

³ California Air Resources Board, *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*, October 2000.

⁴ California Air Resources Board, *Overview: Diesel Exhaust & Health*, available at: <https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health>, accessed March 2025.

extensions for low-mileage construction trucks, early PM filter retrofits, adding cleaner vehicles, and other situations. Privately and publicly owned school buses have different requirements.

Heavy-Duty Vehicle Idling Emission Reduction Program

The purpose of the CARB ATCM to Limit Diesel-Fueled Commercial Motor Vehicle Idling is to reduce public exposure to DPM and criteria pollutants by limiting the idling of diesel-fueled commercial vehicles including transportation refrigeration units (TRUs). The driver of any vehicle subject to this ATCM is prohibited from idling the vehicle's primary diesel engine for greater than five minutes at any location and is prohibited from idling a diesel-fueled auxiliary power system (APS) for more than five minutes to power a heater, air conditioner, or any ancillary equipment on the vehicle if it has a sleeper berth and the truck is located within 100 feet of a restricted area (homes and schools).

CARB Final Regulation Order, Requirements to Reduce Idling Emissions from New and In-Use Trucks, beginning in 2008, requires that new 2008 and subsequent model-year heavy-duty diesel engines be equipped with an engine shutdown system that automatically shuts down the engine after 300 seconds of continuous idling operation once the vehicle is stopped, the transmission is set to "neutral" or "park", and the parking brake is engaged.

Section 2485 and Section 2449 of Title 13 of the California Code of Regulations limits diesel-fueled motor vehicle idling to no more than five minutes. Section 2485 limits idling for diesel-fueled commercial motor vehicles with gross vehicle weight ratings of greater than 10,000 pounds that are or must be licensed to operate on publicly maintained highways and streets within California. Section 2449 limits idling for off-road diesel-fueled fleets.

CARB Advanced Clean Truck Regulation

CARB adopted the Advanced Clean Truck Regulation in June 2020 requiring truck manufacturers to transition from diesel trucks and vans to electric zero-emission trucks beginning in 2024. By 2045, every new truck sold in California is required to be zero-emission. This rule directly addresses disproportionate risks and health and pollution burdens and puts California on the path for an all zero-emission short-haul drayage fleet in ports and railyards by 2035, and zero-emission "last-mile" delivery trucks and vans by 2040. The Advanced Clean Truck Regulation accelerates the transition of zero-emission medium-and heavy-duty vehicles from Class 2b to Class 8. The regulation has two components including a manufacturer sales requirement, and a reporting requirement:

- **Zero-Emission Truck Sales:** Manufacturers who certify Class 2b through 8 chassis or complete vehicles with combustion engines are required to sell zero-emission trucks as an increasing percentage of their annual California sales from 2024 to 2035. By 2035, zero-emission truck/chassis sales need to be 55 percent of Class 2b – 3 truck sales, 75 percent of Class 4 – 8 straight truck sales, and 40 percent of truck tractor sales.
- **Company and Fleet Reporting:** Large employers including retailers, manufacturers, brokers and others would be required to report information about shipments and shuttle services. Fleet owners, with 50 or more trucks, would be required to report about their existing fleet operations. This information would help identify future strategies to ensure that fleets purchase available zero-emission trucks and place them in service where suitable to meet their needs.

Advanced Clean Cars I and II

Advanced Clean Cars combines several regulations into one package including the Low-Emission Vehicle (LEV) criteria and greenhouse gas regulations and the zero-emission vehicle (ZEV) regulation. Advanced Clean Cars I was adopted in 2012 and Advanced Clean Cars II was adopted in 2022. These regulations rapidly scale down emissions of light-duty passenger cars, pickup trucks and sport utility vehicles (SUVs) and require an increased number of zero-emission vehicles to meet air quality and climate change emissions goals. By 2035 all new passenger cars, trucks and SUVs sold in California will be zero emissions. The Advanced Clean Cars II regulations take the state's already growing zero-emission vehicle market and robust motor vehicle emission control rules and augments them to meet more aggressive tailpipe emissions standards and ramp up to 100 percent zero-emission vehicles.

CARB Advanced Clean Fleets Regulation

CARB approved Advanced Clean Fleets Regulation (ACF) on April 28, 2023, requires fleet owners to begin transitioning toward ZEVs starting in 2024. Due to the impact that truck traffic has on residents living near heavily trafficked corridors, drayage trucks will need to be zero-emissions by 2035. All other fleet owners have the option to transition a percentage of their vehicles to meet expected zero-emission milestones, which gives owners the flexibility to continue operating combustion-powered vehicles as needed during the move toward cleaner technology. On January 13, 2025, CARB withdrew their FCAA waiver request to U.S. EPA for the Advanced Clean Fleets Regulation. Therefore, the implementation status of this regulation is currently unknown.

California Energy Commission – Title 24 Building Energy Efficiency Standards

The Energy Efficiency Standards for Residential and Nonresidential Buildings, as specified in California Code of Regulations (CCR) Title 24 Part 6, were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated every three years to allow consideration and possible incorporation of new energy efficiency technologies and methods. The 2019 Energy Standards included requirements for mandatory mechanical ventilation intended to improve indoor air quality in homes, and requirements for Minimum Efficiency Reporting Value (MERV) 13 air filtration on space conditioning systems, and ventilation systems that provide outside air to a dwelling's occupiable space. The Residential Compliance Manual for the 2019 Building Energy Efficiency Standards notes that air filter efficiencies of at least MERV 13 protect occupants from exposure to the smaller airborne particles (i.e., PM_{2.5}) that are known to adversely affect respiratory health. CCR Title 24 Part 6 requires a particle size efficiency rating equal to or greater than 85 percent in the 1.0 to 0.3 micrometer (µm) range. The California Energy Commission (CEC) adopted the 2022 Energy Code on August 11, 2021, which was subsequently approved by the California Building Standards Commission for inclusion into the California Building Standards Code. The 2022 Title 24 standards result in less energy use, thereby reducing air pollutant emissions associated with energy consumption across California. For example, the 2022 Title 24 standards will require efficient electric heat pumps, establishes electric-ready requirements for new homes, expands solar photovoltaic and battery storage standards, and strengthens ventilation standards.

CalEnviroScreen

OEHHA has developed CalEnviroScreen 4.0, which is a mapping tool that helps identify California communities that are most affected by many sources of pollution, and where people are often especially vulnerable to pollution's effects. CalEnviroScreen uses environmental, health, and socioeconomic information to produce scores for every census tract in the State. The scores are mapped so that different communities can be compared. An area with a high score is one that experiences a much higher pollution burden than areas with low scores.

According to CalEnviroScreen, the Project site is located within Census Tract 6001408900, which is within the 90th percentile.⁵ It should be noted that the CalEnviroScreen scores are not an expression of health risk, and do not provide quantitative information on increases in cumulative impacts for specific sites or projects. Further, as a comparative screening tool, the results do not provide a basis for determining when differences between scores are significant in relation to public health or the environment.

Senate Bill 535

Senate Bill (SB) 535 directs 25 percent of the proceeds from the Greenhouse Gas Reduction Fund (i.e., funds from the AB 32 cap-and-trade program) to go to projects that provide a benefit to disadvantaged communities (DACs) (as identified by the OEHHA mapping). These funds must be used for programs that further reduce greenhouse gas emissions. Funding programs that reduce greenhouse gas emissions would also potentially reduce exposure to other emissions including TACs. Based on OEHHA mapping, the closest SB 535 designated disadvantaged community is located approximately six miles northeast of the Project site (Census Tract 6001408900).⁶ SB 535 does not include project specific requirements or prohibit developments in proximity to the designated communities.

Executive Order N-79-20

Signed in September 2020, Executive Order N-79-20 establishes as a goal that where feasible, all new passenger cars and trucks, as well as all drayage/cargo trucks and off-road vehicles and equipment, sold in California, will be zero-emission by 2035. The executive order sets a similar goal requiring that all medium and heavy-duty vehicles will be zero-emission by 2045 where feasible. It also directs CARB to develop and propose rulemaking for passenger vehicles and trucks, medium- and heavy-duty fleets where feasible, drayage trucks, and off-road vehicles and equipment "requiring increasing volumes" of new zero emission vehicles (ZEVs) "towards the target of 100 percent." The executive order directs the California Environmental Protection Agency, the California Geologic Energy Management Division (CalGEM), and the California Natural Resources Agency to transition and repurpose oil production facilities with a goal toward meeting carbon neutrality by 2045. Executive Order N-79-20 builds upon the CARB Advanced Clean Trucks regulation, which was adopted by CARB in July 2020.

⁵ California Office of Environmental Health Hazard Assessment, *CalEnviroScreen 4.0*, https://experience.arcgis.com/experience/11d2f52282a54ceebcac7428e6184203/page/CalEnviroScreen-4_0/, accessed March 2025.

⁶ California Office of Environmental Health Hazard Assessment, *SB 535 Disadvantaged Communities (2022 Update)*, <https://oehha.ca.gov/calenviroscreen/sb535>, accessed March 2025.

AB 617 Community Air Protection Program

AB 617 was promulgated into state law in 2017. The purpose of this legislation is for CARB to establish the Community Air Protection Program (CAPP). CARB's objective in implementing the CAPP is to reduce human health risk levels by reducing air toxics exposure in communities most impacted by TAC emissions. CARB requires that air districts "must initiate community partnerships and undertake a robust public process in developing and implementing the community emissions reduction programs." There have been 17 designated communities throughout the state targeting emissions reductions, community monitoring or both. The majority of AB 617 communities have both reduction and monitoring designations. The state legislature has provided a funding mechanism to support early actions allowing for deployment of cleaner technologies for designated communities as well as grants to promote community participation in both the monitoring and emissions reductions aspects of the program. Other aspects of the program include accelerated retrofit of pollution controls on industrial stationary sources, an increase in financial penalties, and increased transparency and availability of emissions and air quality information thereby driving air pollution control efforts statewide with a goal of improved intra- Air District communication and cooperation.

The Project site is located within East Oakland which was designated a CAPP community in 2021. East Oakland was selected amongst high priority communities in the Bay Area due to longstanding air quality challenges, environmental justice issues, and health inequities. The East Oakland community is home to major goods movement and transportation corridors, as well as air pollution sources associated with industry and the trucking industries. Data shows residents of this community have lower life expectancies and higher mortality rates from lung diseases due to constant exposure to air pollution. This community has a higher rate of asthma emergency room visits and cardiovascular disease than most of California. It also has some of the highest unemployment and housing cost burdens and some of the lowest educational attainment and life expectancy in the State.

East Oakland organizations have partnered with the Bay Area Air District to build community capacity, increase understanding of local air pollution and environmental justice issues, and bring together cross-agency partnerships necessary for improving environmental health and local air quality improvement. The Bay Area Air District is partnering with Communities for a Better Environment and other community-based organizations to create a community-based Steering Committee to develop the East Oakland AB 617 Community Emissions Reduction Plan.

3.3 Regional

Bay Area Air District

Bay Area Air District is the regional agency with jurisdiction over the nine-county region located in the Basin. The Association of Bay Area Governments (ABAG), Metropolitan Transportation Commission (MTC), county transportation agencies, cities and counties, and various nongovernmental organizations also join in the efforts to improve air quality through a variety of programs. These programs include the adoption of regulations and policies, as well as implementation of extensive education and public outreach programs.

Clean Air Plan

Air quality plans developed to meet federal requirements are referred to as State Implementation Plans (SIPs). The FCAA and CCAA require plans to be developed for areas designated as nonattainment (with the exception of areas designated as nonattainment for the PM₁₀ CAAQS). Bay Area Air District is responsible for developing a Clean Air Plan, which guides the region's air quality planning efforts to attain the CAAQS. Bay Area Air District adopted the 2017 Clean Air Plan: Spare the Air, Cool the Climate on April 19, 2017.

Bay Area Air District periodically develops air quality plans that outline the regional strategy to improve air quality and protect the climate. The most recent plan, 2017 Bay Area Clean Air Plan, includes a wide range of control measures designed to reduce emissions of air pollutants and greenhouse gases (GHGs), including the following examples that may be relevant to this Project: reduce emissions of TACs by adopting more stringent limits and methods for evaluating toxic risks; implement pricing measures to reduce travel demand; accelerate the widespread adoption of electric vehicles; promote the use of clean fuels and low or zero carbon technologies in trucks and heavy-duty vehicles; promote energy efficiency in both new and existing buildings; and promote the switch from natural gas to electricity for space and water heating in Bay Area buildings.

The 2017 Clean Air Plan provides a regional strategy to protect public health and protect the climate. To protect public health, the plan describes how Bay Area Air District will continue progress toward attaining all state and federal air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities. To protect the climate, the 2017 Clean Air Plan defines a vision for transitioning the region to a post-carbon economy needed to achieve ambitious GHG reduction targets for 2030 and 2050 and provides a regional climate protection strategy that will put the Bay Area on a pathway to achieve those GHG reduction targets. The 2017 Clean Air Plan contains district-wide control measures to reduce O₃ precursor emissions (i.e., ROG and NO_x), particulate matter, TACs, and greenhouse gas emissions. The Bay Area 2017 Clean Air Plan updates the Bay Area 2010 Clean Air Plan in accordance with the requirements of the CCAA to implement "all feasible measures" to reduce O₃; provides a control strategy to reduce O₃, PM, TACs, and greenhouse gases in a single, integrated plan; reviews progress in improving air quality in recent years; and establishes emission control measures to be adopted or implemented in both the short term and through 2050.

The 2017 Clean Air Plan includes a wide range of control measures designed to decrease emissions of the air pollutants that are most harmful to Bay Area residents, such as particulate matter, O₃, and TACs to reduce emissions of methane and other "super-GHGs" that are potent climate pollutants in the near-term; and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

The following Bay Area Air District rules would limit emissions of air pollutants from construction and operation of the Project:

- Regulation 2, Rule 1 – General Requirements. The purpose of this rule is to provide an orderly procedure for the review of new sources of air pollution, and the modification and operation of existing sources, and of associated air pollution control devices, through the issuance of authorities to construct and permits to operate.

- Regulation 6, Rule 1 – General Requirements. The purpose of this rule is to limit the quantity of particulate matter in the atmosphere through the establishment of limitations on emissions rates, emission concentrations, visible emissions, and opacity.
- Regulation 8, Rule 1 – General Provisions 2021 Amendment. The purpose of this rule is to limit the emission of organic compounds to the atmosphere. Certain organic compounds may also be subject to the requirements of Regulations 11 or 12.
- Regulation 8, Rule 3 – Architectural Coatings. The purpose of this rule is to limit the quantity of volatile organic compounds in architectural coatings supplied, sold, offered for sale, applied, solicited for application, or manufactured for use within Bay Area Air District's jurisdiction. Although this rule does not directly apply to the Project, it does dictate the ROG content of paint available for use during the construction.
- Regulation 8, Rule 15 – Emulsified and Liquid Asphalts. The purpose of this rule is to limit the emissions of volatile organic compounds caused by the use of Emulsified and Liquid asphalt in paving materials and paving and maintenance operations. Although this rule does not directly apply to the Project, it does dictate the ROG content of asphalt for use during the construction.
- Regulation 9, Rule 8 – Nitrogen Oxides and Carbon Monoxide from Stationary Internal Combustion Engines. This rule limits the emissions of nitrogen oxides and CO from stationary internal combustion engines with an output rated by the manufacturer at more than 50 brake horsepower.
- Regulation 11, Rule 2 – Asbestos Demolition, Renovation, and Manufacturing. The purpose of this rule is to control emissions of asbestos to the atmosphere during demolition, renovation, milling, and manufacturing, and establish appropriate waste disposal procedures.
- Regulation 11, Rule 18 – Reduction of risk from air toxic emissions at existing facilities. The purpose of this rule is to ensure that facilities that emit toxic air contaminants do not pose an unacceptable health risk to nearby residents, workers, or students.

Bay Area Air District prepared an Ozone Attainment Demonstration Plan to satisfy the federal 1-hour O₃ planning requirement because of the Air Basin's nonattainment for O₃ CAAQS and NAAQS. The U.S. EPA revoked the 1-hour O₃ standard and adopted an 8-hour O₃ standard. Bay Area Air District will address the new federal 8-hour O₃ planning requirements once they are established.

Community Air Risk Evaluation Program

Bay Area Air District began its Community Air Risk Evaluation (CARE) program in 2004 to evaluate and reduce health risks associated with exposures to outdoor TACs in the Bay Area. The program examines TAC emissions from point sources, area sources, and on-road and off-road mobile sources with an emphasis on diesel exhaust, which is a major contributor to airborne health risk in California. The CARE program is an on-going program that encourages community involvement and input. The technical analysis portion of the CARE program is implemented in three phases that includes an assessment of the sources of TAC emissions, modeling and measurement programs to

estimate concentrations of TAC, and an assessment of exposures and health risks. Throughout the program, information derived from the technical analyses is used to focus emission reduction measures in areas with high TAC exposures and high density of sensitive populations.

Risk reduction activities associated with the CARE program are focused on the most at-risk communities in the Bay Area. Bay Area Air District has identified six communities as impacted as part of the CARE program: Concord, Richmond/San Pablo, Western Alameda County, San José, Redwood City/East Palo Alto, and Eastern San Francisco. Overburdened communities are areas located (i) within a census tract identified by the California Communities Environmental Health Screening Tool (CalEnviroScreen), Version 4.0 implemented by OEHHA, as having an overall score at or above the 70th percentile, or (ii) within 1,000 feet of any such census tract. The Project site is located within Census Tract 6001408900, which is within the 90th percentile.

CEQA Air Quality Guidelines

Bay Area Air District prepared its California Environmental Quality Act (CEQA) Air Quality Guidelines to assist in the evaluation of air quality impacts of projects and plans proposed within the Bay Area. The guidelines provide recommended procedures for evaluating potential air impacts during the environmental review process consistent with CEQA requirements including thresholds of significance, mitigation measures, and background air quality information. They also include assessment methodologies for TACs, odors, and GHG emissions. Bay Area Air District most recently updated its guidelines in April 2023, after revising its climate impact threshold on April 20, 2022.

Metropolitan Transportation Commission/Association of Bay Area Governments Sustainable Communities Strategy

The Metropolitan Transportation Commission (MTC) is the federally recognized Metropolitan Planning Organization for the nine-county Bay Area, which includes Alameda County and the City of Oakland. On July 18, 2013, Plan Bay Area was jointly approved by the Association of Bay Area Governments' (ABAG's) Executive board and by MTC. The plan includes the region's Sustainable Communities Strategy (SCS), as required under SB 375, and the Regional Transportation Plan. Though the purpose of the SCS is to lay out how the region will meet GHG emissions reduction targets set by CARB, by concentrating future growth within Priority Development Areas (PDA's) and Transit Priority Areas (TPAs), the reduction in VMT will also reduce criteria air pollutant emissions.⁷

On July 26, 2017, MTC adopted *Plan Bay Area 2040*, a focused update that builds upon the growth pattern and strategies developed in the original *Plan Bay Area* (2013), but with updated planning assumptions that incorporate key economic, demographic, and financial trends since the original plan was adopted.

More recently, on October 21, 2021, the MTC and ABAG jointly adopted Plan Bay Area 2050 as the official regional long-range plan for the Bay Area. Plan Bay Area 2050 connects the elements of housing, the economy, transportation, and the environment through 35 strategies that will make the Bay Area more equitable for all residents and more resilient in the face of unexpected challenges.

⁷ To be eligible for designation as a Priority Development Area, an area must be within an existing community, near existing or planned fixed transit or served by comparable bus service and planned for more housing. A Transit Priority Area is an area within one-half mile of an existing or planned major transit stop such as a rail transit station, a ferry terminal served by transit, or the intersection of two or more major bus routes.

Within a shorter term, the plan's Implementation Plan identifies more than 80 specific actions for MTC, ABAG, and partner organizations to implement over the next five years to make headway on each of the 35 strategies. It will be several years before the regional transportation model and county transportation models are updated to reflect Plan Bay Area 2050 (the models currently incorporate data from Plan Bay Area 2040).

The Project site is located within the Fruitvale and Dimond Areas PDA as defined by Plan Bay Area 2050 and is therefore consistent with the region's Sustainable Communities Strategy.

3.4 Local

City of Oakland General Plan

The City of Oakland (General Plan) is a long-range planning document that provides a framework for action and the direction in which to focus that action. The City's Land Use and Transportation (LUTE), Open Space, Conservation, and Recreation (OSCAR) elements of the General Plan contains the following policies applicable to the proposed Project:

I/C4.1: Existing industrial, residential, and commercial activities and areas which are consistent with long term land use plans for the City should be protected from the intrusion of potentially incompatible land uses.

I/C4.2: The potential for new or existing industrial or commercial uses, including seaport and airport activities, to create nuisance impacts on surrounding residential land uses should be minimized through appropriate siting and efficient implementation and enforcement of environmental and development controls. Where residential development would be located above commercial uses, parking garages, or any other uses with a potential to generate odors, the odor-generating uses should be properly vented (e.g., located on rooftops) and designed (e.g., equipped with afterburners) so as to minimize the potential for nuisance odor problems.

Objective CO-12: Air Resources. To improve air quality in Oakland and the surrounding Bay Region.

CO-12.4 Require that development projects be designed in a manner which reduces potential adverse air quality impacts. This may include: (a) the use of vegetation and landscaping to absorb CO and to buffer sensitive receptors; (b) the use of low-polluting energy sources and energy conservation measures; and (c) designs which encourage transit use and facilitate bicycle and pedestrian travel.

CO-12.5: Require new industry to use best available control technology to remove pollutants, including filtering, washing, or electrostatic treatment of emissions.

CO-12.6 Require construction, demolition, and grading practices which minimize dust emissions. These practices are currently required by the City and include the following:

- Avoiding earth moving and other major dust generating activities on windy days.

- Sprinkling unpaved construction areas with water during excavation, using reclaimed water where feasible (watering can reduce construction-related dust by 50%).
- Covering stockpiled sand, soil, and other particulates with a tarp to avoid blowing dust.
- Covering trucks hauling dirt and debris to reduce spills. If spills do occur, they should be swept up promptly before materials become airborne.
- Preparing a comprehensive dust control program for major construction in populated areas or adjacent to sensitive uses like hospitals and schools.
- Operating construction and earth-moving equipment, including trucks, to minimize exhaust emissions.

CO-12.7: Coordinate local air quality planning efforts with other agencies, including adjoining cities and counties and the public agencies responsible for monitoring and improving air quality. Cooperate with regional agencies such as the Bay Area Air District, the MTC, the ABAG, and the Alameda County Congestion Management Agency in developing and implementing regional air quality strategies. Continue to work with Bay Area Air District and the California Air Resources Board in enforcing the provisions of the California and federal Clean Air Acts, including the monitoring of air pollutants on a regular and ongoing basis.

City of Oakland Equitable Climate Action Plan

The City of Oakland Equitable Climate Action Plan (Equitable Climate Action Plan or ECAP) is the City's roadmap to bring about an equitable transition to a low-carbon economy with actions and strategies designed to meet equitable, realistic, ambitious, balanced, and adaptive criteria. The goal of this ECAP is to identify an equitable path toward cost-effectively reducing Oakland's local climate emissions a minimum of 56 percent transitioning away from fossil fuel dependence and ensuring that all of Oakland's communities are resilient to the foreseeable impacts of climate change, by 2030. The 2030 ECAP includes a set of 40 Actions projected to result in a 60 percent reduction in GHG emissions by 2030, relative to Oakland's 2005 emission levels. The actions were split into seven sectors: Transportation and Land Use, Buildings, Material Consumption and Waste, Adaptation, Carbon Removal, City Leadership, and Port of Oakland.

City of Oakland Municipal Code

The Oakland Municipal Code (OMC) includes various directives to minimize adverse impacts to air quality in Oakland. Per the City of Oakland Municipal Code, Title 15 Buildings and Construction, Chapter 15.36 Demolition Permits, 15.36.100 Dust Control Measures which essentially states "Best Management Permits" shall be used throughout all phases of work, including suspension of work, to alleviate or prevent fugitive dust nuisance and the discharge of smoke or any other air contaminants into the atmosphere in such quantity as will violate any city or regional air pollution control rules, regulation, ordinances, or statutes.

City of Oakland Energy Code Amendments

In September 2025, Oakland City Council passed the Oakland Amendments to the California Energy and Green Buildings Codes, expanding on state requirements related to energy efficiency. These amendments include stricter performance standards and promote enhanced air filtration and increased readiness for full electrification for new and existing buildings. The amendments were developed in support of the City's ECAP and Environmental Justice (EJ) Element, which requires the City to facilitate the transition to all-electric buildings.

City of Oakland Building Code Amendments

In September 2025, the Oakland City Council passed the Oakland Amendments to the 2025 California Model Building Construction Codes, expanding on state requirements related to building permits and inspections and construction practices. These amendments include requirements related to seismic safety, grading and fire-rated construction, and electrical requirements for both commercial and residential construction, in support of advancing sustainable infrastructure.

City of Oakland Standard Conditions of Approval

The Oakland Standard Conditions of Approval (SCAs) were designed to achieve consistency between project approvals and enforce environmental protection measures. If the Project is approved by the City, all applicable SCAs would be adopted as enforceable conditions of approval and required, as applicable, to be implemented during construction and operation of the Project. The following SCAs relevant to reducing air quality impacts applicable to the Project are listed below.

SCA-22. Dust Controls – Construction Related: The project applicant shall implement all of the following applicable dust control measures during construction of the project:

- a. Water all exposed surfaces of active construction areas at least twice daily. Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever feasible.
- b. Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer).
- c. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- d. Limit vehicle speeds on unpaved roads to 15 miles per hour.
- e. All excavation, grading, and/or demolition activities (if any) shall be suspended when average wind speeds exceed 20 mph.
- f. All trucks and equipment, including tires, shall be washed off prior to leaving the site.
- g. Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6 to 12 inch compacted layer of wood chips, mulch, or gravel.

- h. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- i. Limit the simultaneous occurrence of excavation, grading, and ground-disturbing construction activities.
- j. Apply and maintain vegetative ground cover (e.g., hydroseed) or non-toxic soil stabilizers to disturbed areas of soil that will be inactive for more than 10 days. Enclose, cover, water twice daily, or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.).
- k. Designate a person or person to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress.
- l. When working at a site, install appropriate wind breaks (e.g., trees, fences) on the windward side(s) of the site, to minimize wind-blown dust. Windbreaks must have a maximum 50 percent air porosity.
- m. Post a publicly visible large on-site sign that includes the contact name and phone number for the project complaint manager responsible for responding to dust complaints and the telephone numbers of the City's Code Enforcement unit and the Bay Area Air Quality Management District. When contacted, the project complaint manager shall respond and take corrective action within 48 hours.
- n. All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe.
- o. Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.
- p. Plant vegetation in areas designated for landscaping as soon as possible and water appropriately until vegetation is established.

SCA-23. Criteria Air Pollutant Controls – Construction and Operation Related: The project applicant shall implement all of the following applicable basic and enhanced control measures for criteria air pollutants during construction of the project as applicable:

- a. Idling times on all diesel-fueled commercial vehicles over 10,000 lbs. shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to two minutes (as required by the California airborne toxics control measure Title 13, Section 2485, of the California Code of Regulations). Clear signage to this effect shall be provided for construction workers at all access points.
- b. Idling times on all diesel-fueled off-road vehicles over 25 horsepower shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to two minutes and fleet operators must develop a written policy as required by Title 23, Section 2449, of the California Code of Regulations ("California Air Resources Board Off-Road Diesel Regulations).

- c. All construction equipment shall be maintained and properly tuned in accordance with the manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. Equipment check documentation should be kept at the construction site and be available for review by the City and the Bay Area Air Quality District as needed.
- d. Portable equipment shall be powered by grid electricity if available. If electricity is not available, propane or natural gas generators shall be used if feasible. Diesel engines shall only be used if grid electricity is not available and propane or natural gas generators cannot meet the electrical demand.
- e. Low-VOC (i.e., ROG) coatings shall be used that comply with Bay Area Air District Regulation 8, Rule 3: Architectural Coatings.
- f. All equipment to be used on the construction site shall comply with the requirements of Title 13, Section 2449, of the California Code of Regulations ("California Air Resources Board Off-Road Diesel Regulations") and upon request by the City (and the Air District if specifically requested), the project applicant shall provide written documentation that fleet requirements have been met.
- g. Criteria Air Pollutant Reduction Measures

The project applicant shall retain a qualified air quality consultant to prepare a project-level criteria air pollutant assessment of construction and operational emissions at the time the project is proposed. The project-level assessment shall either include a comparison of the project with other similar projects where a quantitative analysis has been conducted or shall provide a project-specific criteria air pollutant analysis to determine whether the project exceeds the City's criteria air pollutant thresholds.

In the event that a project-specific analysis finds that the project could result in criteria air pollutant emissions that exceed City significance thresholds (54 pounds per day of ROG, NO_x, or PM_{2.5} or 82 pounds per day of PM₁₀), the project applicant shall identify criteria air pollutant reduction measures to reduce the project's average daily emissions below these thresholds. The following emission reduction measures shall be implemented to the degree necessary to reduce emissions to levels below the significance thresholds. Additional measures shall be implemented if necessary. Quantified emissions and identified reduction measures shall be submitted to the City (and the Air District if specifically requested) for review and approval prior to the issuance of building permits and the approved criteria air pollutant reduction measures shall be implemented during construction.

i. *Clean Construction Equipment*

- a) Where access to grid-powered electricity is reasonably available, portable diesel engines shall be prohibited and electric engines shall be used for concrete/industrial saws, sweepers/scrubbers, aerial lifts, welders, air compressors, fixed cranes, forklifts, cement and mortar mixers, pressure washers, and pumps.
- b) Diesel off-road equipment shall have engines that meet the Tier 4 Final off-road emission standards, as certified by CARB, as required to reduce the

emissions to less than the thresholds of significance shown in Table 2-1 of Air District CEQA Guidelines. This requirement shall be verified through submittal of an equipment inventory that includes the following information: (1) type of equipment; (2) engine year and age; (3) number of years since rebuild of engine (if applicable); (4) type of fuel used; (5) engine HP; (6) engine certification (tier rating); (7) verified diesel emission control strategy (VDECS) information if applicable, and other related equipment data. A Certification Statement is also required to be made by the Contractor as documentation of compliance and for future review by the air district as necessary. The Certification Statement must state that the Contractor agrees to comply and acknowledges that a violation of this requirement shall constitute a material breach of contract.

- c) Any other best available technology that reduces emissions offered at the time that future projects are reviewed may be included in the construction emissions minimization plan (e.g. alternative fuel sources, etc.).
- d) Exceptions to requirements a), b), and c) above may be granted if the project sponsor has submitted information providing evidence that meeting the requirement (1) is technically not feasible, (2) would not produce desired emissions reductions due to expected operating modes, or (3) there is a compelling emergency need to use equipment that do not meet the engine standards and the sponsor has submitted documentation that the requirements of this exception provision apply. In seeking an exception, the project sponsor shall demonstrate that the project will use the cleanest piece of construction equipment available and feasible and strive to meet a performance standard of average construction emissions of ROG, NO_x, PM_{2.5} below 54 lbs/day, and PM₁₀ emissions below 82 lbs/day.

ii. *Super-Compliant VOC Architectural Coatings during Construction*

The Project sponsor shall use super-compliant VOC architectural coatings during construction for all interior and exterior spaces and shall include this requirement on plans submitted for review by the City's building official. "Super-Compliant" refers to paints that meet the more stringent regulatory limits in South Coast Air Quality Management District rule 1113 which requires a limit of 10 grams VOC per liter.

iii. *Use Low and Super-Compliant VOC Architectural Coatings in Maintaining Buildings*

Subsequent projects shall use super-compliant VOC architectural coatings in maintaining buildings. "Super-Compliant" refers to paints that meet the more stringent regulatory limits in South Coast Air Quality Management District rule 1113, which requires a limit of 10 grams VOC per liter.

iv. *Promote Use of Green Consumer Products*

To reduce ROG emissions associated with the Project, the Project Sponsor and/or future developer(s) shall provide education for residential tenants concerning green consumer products. The Project sponsor and/or future developer(s) shall develop electronic correspondence to be distributed by email annually and upon any new

lease signing to residential tenants of each building on the Project site that encourages the purchase of consumer products that generate lower than typical VOC emissions. The correspondence shall encourage environmentally preferable purchasing.

v. *Best Available Control Technology for Projects with Diesel Backup Generators and Fire Pumps*

The Project sponsor shall implement the following measures. These features shall be submitted to the City for review and approval and be included on the Project drawings submitted for the construction-related permit or on other documentation submitted to the City:

- a) Pursuant to SCA 24, non-diesel fueled generators shall be installed to replace diesel-fueled generators if feasible. Alternative fuels used in generators, such as biodiesel, renewable diesel, natural gas, or other biofuels or other non-diesel emergency power systems, must be demonstrated to reduce criteria pollutant emissions compared to diesel fuel.
- b) Pursuant to SCA 24, all new diesel backup generators shall have engines that meet or exceed CARB Tier 4 off-road Compression Ignition Engine Standards (title 13, CCR, section 2423). If CARB adopts future emissions standards that exceed the Tier 4 requirement, the emissions standards resulting in the lowest criteria pollutant emissions shall apply.
- c) All new diesel backup generators shall have an annual maintenance testing limit of 20 hours, subject to any further restrictions as may be imposed by the Air District in its permitting process.
- d) For each new diesel backup generator permit submitted to the Air District for the Project, the Project sponsor shall submit the anticipated location and engine specifications to the City for review and approval prior to issuance of a permit for the generator from the City of Oakland Department of Building Inspection. Once operational, all diesel backup generators shall be maintained in good working order for the life of the equipment and any future replacement of the diesel backup generators shall be required to be consistent with these emissions specifications. The operator of the facility at which the generator is located shall be required to maintain records of the testing schedule for each diesel backup generator for the life of that diesel backup generator and to provide this information for review to the planning department within three months of requesting such information.

vi. *Electric Vehicle Charging*

Prior to the issuance of the building's final certificate of occupancy, the project applicant shall demonstrate that the project is designed to comply with EV requirements in the most recently adopted version of CALGreen Tier 2 at the time of project-specific CEQA review. The installation of all EV charging equipment shall be included on the project drawings submitted for the construction-related permit(s) or on other documentation submitted to the City.

vii. Additional Operational Emissions Reduction Measures

The project sponsor shall implement the following additional measures to reduce operational criteria air pollutant emissions:

- a) Prohibit TRUs from operating at loading docks for more than 30 minutes by posting signs at each loading dock presenting this TRU limit.
- b) All newly constructed loading docks that can accommodate trucks with TRUs shall be equipped with electric vehicle (EV) charging equipment for heavy-duty trucks. This measure does not apply to temporary street parking for loading or unloading.
- c) Require that all future tenants have a plan to convert their vehicle fleet(s) to zero emission vehicles (ZEVs) no later than 2040. This would be a condition of all leases at the project site.
- d) Other measures that become available and are shown to effectively reduce criteria air pollutant emissions on site or off site if emission reductions are realized within the air basin. Measures to reduce emissions on site are preferable to off-site emissions reductions.

viii. Construction Emissions Minimization Plan

The project sponsor shall prepare a Construction Emissions Minimization Plan (Emissions Plan) for all identified criteria air pollutant reduction measures. The Emissions Plan shall be submitted to the City (and the Air District if specifically requested) for review and approval prior to the issuance of building permits. The Emissions Plan shall include the following:

- a) An equipment inventory summarizing the type of off-road equipment required for each phase of construction, including the equipment manufacturer, equipment identification number, engine model year, engine certification (tier rating), horsepower, and engine serial number. For all Verified Diesel Emissions Control Strategies (VDECS), the equipment inventory shall also include the technology type, serial number, make, model, manufacturer, CARB verification number level, and installation date.
- b) A Certification Statement that the Contractor agrees to comply fully with the Emissions Plan and acknowledges that a significant violation of the Emissions Plan shall constitute a material breach of contract.

SCA-24. Toxic Air Contaminant Controls – Construction Related

a. Particulate Matter Reduction Measures

The project applicant shall implement appropriate measures during construction to reduce potential health risks to sensitive receptors due to exposure to diesel particulate matter (DPM) and particulate matter less than 2.5 microns in diameter (PM_{2.5}) in exhaust and fugitive emissions from construction activities. The project applicant shall choose to implement i or both ii and iii:

- i. The project applicant shall retain a qualified air quality consultant to prepare a Health Risk Assessment (HRA) in accordance with current guidance from the California Air Resources Board (CARB), the Office of Environmental Health and Hazard Assessment, and the Bay Area Air District to determine the health risk to sensitive receptors exposed to DPM and PM_{2.5} from exhaust and fugitive emissions from project construction. The HRA shall be based on project-specific construction schedule, equipment, and activity data. Estimated project-level health risks shall be compared to the City's health risk significance thresholds for projects. The HRA shall be submitted to the City (and the Air District if specifically requested) for review and approval. If the HRA concludes that the health risk is at or below the City's health risk significance thresholds for projects, then DPM and PM_{2.5} reduction measures are not required. If the HRA concludes that the health risk exceeds the City's health risk significance thresholds for projects, DPM and PM_{2.5} reduction measures shall be identified to reduce the health risk to below the City's health risk significance thresholds as set forth under subsection b below. Identified DPM and PM_{2.5} reduction measures shall be submitted to the City for review and approval prior to the issuance of building permits and the approved DPM and PM_{2.5} reduction measures shall be implemented during construction.

OR

- ii. The project applicant shall incorporate the following health risk reduction measures into the project to reduce TAC emissions from construction equipment. These features shall be submitted to the City for review and approval and be included on the project drawings submitted for the construction-related permit or on other documentation submitted to the City.
 - All off-road diesel equipment shall be equipped with the most effective Verified Diesel Emission Control Strategies (VDECS) available for the engine type (Tier 4 engines automatically meet this requirement) as certified by CARB. The equipment shall be properly maintained and tuned in accordance with manufacturer specifications. This shall be verified through an equipment inventory submittal and Certification Statement that the Contractor agrees to compliance and acknowledges that a significant violation of this requirement shall constitute a material breach of contract.
 - Where access to grid-powered electricity is available, portable diesel engines shall be prohibited and electric engines shall be used for concrete/industrial saws, sweepers/scrubbers, aerial lifts, welders, air compressors, fixed cranes, forklifts, cement and mortar mixers, pressure washers, and pumps. Any other best available technology that reduces emissions offered at the time that future projects are reviewed may be included in the construction emissions minimization plan (e.g., alternative fuel sources, etc.).

AND

- iii. The project applicant shall implement all enhanced control measures included in SCA 22 (Dust Controls – Construction Related).

b. Construction Emissions Minimization Plan (if required by a above)

The project applicant shall prepare a Construction Emissions Minimization Plan (Emissions Plan) for all identified DPM reduction measures (if any). The Emissions Plan shall be submitted to the City (and the Bay Area Air Quality District if specifically requested) for review and approval prior to the issuance of building permits. The Emissions Plan shall include the following:

- i. An equipment inventory summarizing the type of off-road equipment required for each phase of construction, including the equipment manufacturer, equipment identification number, engine model year, engine certification (tier rating), horsepower, and engine serial number. For all VDECS, the equipment inventory shall also include the technology type, serial number, make, model, manufacturer, CARB verification number level, and installation date.
- ii. A Certification Statement that the Contractor agrees to comply fully with the Emissions Plan and acknowledges that a significant violation of the Emissions Plan shall constitute a material breach of contract.

SCA-25. Reduce Exposure to Air Pollution (Toxic Air Contaminants):

a. Health Risk Reduction Measures

The project applicant shall incorporate appropriate measures into the project design in order to reduce the potential health risk due to exposure to toxic air contaminants. The project applicant shall choose one of the following methods:

- i. The project applicant shall retain a qualified air quality consultant to prepare a Health Risk Assessment (HRA) in accordance with California Air Resources Board (CARB) and Office of Environmental Health and Hazard Assessment requirements and in accordance with Bay Area Air District CEQA guidance for HRAs to determine the health risk of exposure of project residents/occupants/users to air pollutants and the exposure of existing off-site sensitive receptors to project-generated TAC emissions. The HRA shall be based on project-specific activity data. Estimated project-level health risks shall be compared to the City's health risk significance thresholds for projects. The HRA shall be submitted to the City for review and approval. If the HRA concludes that the health risk is at or below the City's health risk significance thresholds for projects, then health risk reduction measures are not required. If the HRA concludes that the health risk exceeds the City's health risk significance thresholds for projects, health risk reduction measures shall be identified to reduce the health risk below the City's health risk significance thresholds. Identified risk reduction measures shall be submitted to the City for review and approval and be included on the project drawings submitted for the construction-related permit or on other documentation submitted to the City. The approved risk reduction measures shall be implemented during construction and/or operations as applicable.

OR

- ii. The project applicant shall incorporate all of the following health risk reduction measures into the project. These features shall be submitted to the City for review and approval and be included on the project drawings submitted for the construction-related permit or on other documentation submitted to the City:
- Installation of centralized heating, mechanical ventilation, and air-conditioning systems to reduce cancer risks and Particulate Matter (PM) exposure for residents and other sensitive populations in the project that are in close proximity to sources of air pollution.
 - The outdoor air intake for the heating, ventilation, and air-conditioning system shall face away from the freeway or other air pollution source.
 - Mechanical ventilation systems shall provide air filtration for outside and return air capable of achieving the protection from particulate matter (PM_{2.5}) that provides a minimum efficiency reporting value (MERV) of 16 (as defined by American Society of Heating, Refrigerating, and Air-Conditioning Engineers standard 52.2). As part of implementing this measure, an ongoing maintenance plan for the building's HVAC air filtration system shall be required. The air filtration media shall be replaced at the manufacturer's designated interval.
 - Where appropriate, install passive electrostatic filtering systems, especially those with low air velocities (i.e., 1 mph).
 - Phasing of residential developments when proposed within 500 feet of freeways such that homes nearest the freeway are built last, if feasible.
 - The project shall be designed to locate sensitive receptors as far away as feasible from the source(s) of air pollution. Operable windows, balconies, and building air intakes shall be located as far away from these sources as feasible. Buildings shall not have any balconies facing a freeway. If near a distribution center, residents shall be located as far away as feasible from a loading dock or where trucks concentrate to deliver goods.
 - Sensitive receptors shall be located on the upper floors of buildings, if feasible.
 - Planting trees and/or vegetation between sensitive receptors and pollution source, if feasible. Trees that are best suited to trapping PM shall be planted, including one or more of the following: Pine (*Pinus nigra* var. *maritima*), Cypress (*X Cupressocyparis leylandii*), Hybrid poplar (*Populus deltoids X trichocarpa*), and Redwood (*Sequoia sempervirens*).
 - Sensitive receptors shall be located as far away from truck activity areas, such as loading docks and delivery areas, as feasible.
 - Existing and new diesel generators shall meet CARB's Tier 4 emission standards, if feasible.

b. *Maintenance of Health Risk Reduction Measures Requirement*

The project applicant shall maintain, repair, and/or replace installed health risk reduction measures, including but not limited to the HVAC system (if applicable), on an ongoing and as-needed basis. Prior to occupancy, the project applicant shall prepare and then distribute to the building manager/operator an operation and maintenance manual for the HVAC system and filter including the maintenance and replacement schedule for the filter.

SCA-26. Stationary Sources of Air Pollution (Toxic Air Contaminants): The project applicant shall incorporate appropriate measures into the project design in order to reduce the potential health risk due to on-site stationary sources of toxic air contaminants. The project applicant shall choose one of the following methods:

- a. The project applicant shall retain a qualified air quality consultant to prepare a Health Risk Assessment (HRA) in accordance with California Air Resources Board (CARB) and Office of Environmental Health and Hazard Assessment requirements and in accordance with Bay Area Air District CEQA guidance for HRAs to determine the health risk associated with proposed stationary sources of pollution in the project. The HRA shall be based on projectspecific activity data. Estimated project-level health risks shall be compared to the City's health risk significance thresholds for the project. The HRA shall be submitted to the City for review and approval. If the HRA concludes that the health risk is at or below the City's health risk significance thresholds for projects, then health risk reduction measures are not required. If the HRA concludes the health risk exceeds the City's health risk significance thresholds for projects, health risk reduction measures shall be identified to reduce the health risk to the City's health risk significance thresholds for projects. Identified risk reduction measures shall be submitted to the City for review and approval and be included on the project drawings submitted for the construction-related permit or on other documentation submitted to the City. The approved risk reduction measures shall be implemented during construction and/or operations as applicable.

OR

- b) The project applicant shall incorporate the following health risk reduction measures into the project. These features shall be submitted to the City for review and approval and be included on the project drawings submitted for the construction-related permit or on other documentation submitted to the City
 - i. Installation of non-diesel fueled generators, if feasible, or;
 - ii. Installation of diesel generators with an EPA-certified Tier 4 engine or engines that are retrofitted with a CARB Level 3 Verified Diesel Emissions Control Strategy, if feasible. If CARB adopts future emissions standards that exceed the Tier 4 requirement, the emissions standards resulting in the lowest DPM emission shall apply.
 - iii. All new diesel backup generators shall have an annual maintenance testing limit of 20 hours, subject to any further restrictions as may be imposed by the Air District in its permitting process.
 - iv. All diesel backup generator exhaust shall be vented on the rooftops of each building where the generators are located. This could be achieved by either placing the diesel backup generators themselves on the rooftops, or by constructing exhaust stacks from

the diesel backup generator locations to the rooftops. Alternatively, the generators or exhaust stacks could be located in areas where the Project sponsor can quantitatively demonstrate that these locations would not result in health risks that exceed those associated with rooftop placement for both existing offsite and future onsite sensitive receptors.

- v. For each new diesel backup generator permit submitted to the Air District for the Project, the Project sponsor shall submit the anticipated location and engine specifications to the City for review and approval prior to issuance of a permit for the generator from the City of Oakland Department of Building Inspection. Once operational, all diesel backup generators shall be maintained in good working order for the life of the equipment and any future replacement of the diesel backup generators shall be required to be consistent with these emissions specifications. The operator of the facility at which the generator is located shall be required to maintain records of the testing schedule for each diesel backup generator for the life of that diesel backup generator and to provide this information for review to the planning department within three months of requesting such information.

SCA-27. Truck-Related Risk Reduction Measures (Toxic Air Contaminants)

- a. *Truck Loading Docks*

The project applicant shall locate proposed truck loading docks as far from nearby sensitive receptors as feasible.

- b. *Truck Fleet Emissions Standards*

The project shall comply with all applicable California Air Resources Board (CARB) requirements to control emissions from diesel engines and demonstrate compliance to the satisfaction of the City. Methods to comply include, but are not limited to, new clean diesel trucks, higher-tier diesel engine trucks with added Particulate Matter (PM) filters, hybrid trucks, alternative energy trucks, or other methods that achieve the applicable CARB emission standard. Compliance with this requirement shall be verified through CARB's Verification Procedures for In-Use Strategies to Control Emissions from Diesel Engines.

- c. *Diesel Truck Emission Reduction Measures*

The Project sponsor shall incorporate the following health risk reduction measures into the Project design and construction contracts (as applicable) in order to reduce the potential health risk due to exposure to toxic air contaminants. These features shall be submitted to the City for review and approval and be included on the Project drawings submitted for the construction-related permit or on other documentation submitted to the City. Emissions from Project-related diesel trucks shall be reduced through implementing the following measures, if feasible:

- i. Prohibit Transportation Refrigeration Units (TRUs) from operating at loading docks for more than 30 minutes by posting signs at each loading dock presenting this TRU limit.

- ii. All newly constructed loading docks that can accommodate trucks with TRUs shall be equipped with electric vehicle (EV) charging equipment for heavy-duty trucks. This measure does not apply to temporary street parking for loading or unloading.
- iii. Require TRU trucks to use TRUs that meet Tier 4 emission standards.
- iv. Require that all future tenants have a plan to convert their vehicle fleet(s) to zero emission vehicles (ZEVs) no later than 2040. This would be a condition of all leases at the project site.
- v. Requiring truck-intensive tenants to use advanced exhaust technology (e.g., hybrid) or alternative fuels.
- vi. Prohibit trucks from idling for more than two minutes.
- vii. Establish truck routes to avoid sensitive receptors in and around the project. A truck route program, along with truck calming, parking, and delivery restrictions, shall be implemented.
- viii. Other measures that become available and are shown to effectively reduce criteria air pollutant emissions on site or off site if emission reductions are realized within the air basin. Measures to reduce emissions on site are preferable to off-site emissions reductions.
- ix. The project sponsor shall develop a Truck Route Plan that establishes operational truck routes to avoid sensitive receptors as identified in the environmental review analysis completed for the project. The purpose of the Truck Route Plan is to route trucks on streets that are located as far from offsite sensitive receptors as possible, while still maintaining the operational goals of the project. The Truck Route Plan must include route restrictions, truck calming, truck parking, and truck delivery restrictions to minimize exposure of nearby sensitive receptors to truck exhaust and fugitive particulate emissions. Prior to the commencement of operational activities, the project sponsor shall certify (1) compliance with the Truck Route Plan, and (2) all applicable requirements of the Truck Route Plan have been incorporated into tenant contract specifications.

SCA-28. Asbestos in Structures: The project applicant shall comply with all applicable laws and regulations regarding demolition and renovation of Asbestos Containing materials (ACM), including but not limited to California Code of Regulations, Title 8; California Business and Professions Code, Division 3; California Health and Safety Code sections 25915-25919.7; and Bay Area Air Quality Management District, Regulation 11, Rule 2, as may be amended. Evidence of compliance shall be submitted to the City upon request.

4.0 SIGNIFICANCE CRITERIA AND METHODOLOGY

4.1 Air Quality Thresholds

Based upon the criteria derived from State CEQA Guidelines Appendix G, a project normally would have a significant effect on the environment if it would:

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

The City of Oakland has established thresholds of significance for CEQA impacts which are consistent with those in State CEQA Guidelines Appendix G. These adopted thresholds are presented below.

The Project would have a significant impact on the environment if it would:

1. During project construction result in average daily emissions of 54 pounds per day of ROG, NO_x, or PM_{2.5} or 82 pounds per day of PM₁₀;
2. During project operation result in average daily emissions of 54 pounds per day of ROG, NO_x, or PM_{2.5} or 82 pounds per day of PM₁₀; or result in maximum annual emissions of 10 tons per year of ROG, NO_x, or PM_{2.5} or 15 tons per year of PM₁₀;
3. Contribute to CO concentrations exceeding the California Ambient Air Quality Standards (CAAQS) of nine ppm averaged over eight hours and 20 ppm for one hour;
4. For new sources of TACs, during either project construction or project operation expose sensitive receptors to substantial levels of TACs under project conditions resulting in (a) an increase in cancer risk level greater than 10 in 1 million, (b) an increase in non-cancer risk (chronic or acute) hazard index greater than 1.0, or (c) an increase of annual average PM_{2.5} concentration of greater than 0.3 micrograms per cubic meter (µg/m³); or, under cumulative conditions, during either project construction or project operation expose existing sensitive receptors to substantial levels of TACs resulting in (a) a cancer risk level greater than 100 in a million, (b) a non-cancer risk (chronic or acute) hazard index greater than 10.0, or (c) annual average PM_{2.5} concentration of greater than 0.8 µg/m³ [NOTE: Pursuant to the Bay Area Air District CEQA Guidelines, when siting new TAC sources consider receptors located within 1,000 feet. For this threshold, sensitive receptors include residential uses, schools, parks, daycare centers, nursing homes, and medical centers. The cumulative analysis should consider the combined risk from all TAC sources];

5. Expose new sensitive receptors to substantial ambient levels of TACs associated with project construction or project operation resulting in (a) a cancer risk level greater than 10 in a million, (b) a non-cancer risk (chronic or acute) hazard index greater than 1.0, or (c) annual average PM_{2.5} concentration of greater than 0.3 µg/m³; or, under cumulative conditions, expose new sensitive receptors to substantial ambient levels of TACs during either project construction or project operation resulting in (a) a cancer risk level greater than 100 in a million, (b) a non-cancer risk (chronic or acute) hazard index greater than 10.0, or (c) annual average PM_{2.5} concentration of greater than 0.8 µg/m³ [NOTE: Pursuant to the Bay Area Air District CEQA Guidelines, when siting new sensitive receptors consider TAC sources located within 1,000 feet including, but not limited to, stationary sources, freeways, major roadways (greater than 10,000 vehicles per day), truck distribution centers, airports, seaports, ferry terminals, and rail lines. For this threshold, sensitive receptors include residential uses, schools, parks, daycare centers, nursing homes, and medical centers.]; or
6. Frequently and for a substantial duration, create or expose sensitive receptors to substantial objectionable odors affecting a substantial number of people.

Specifically, Appendix G criterion (b) “Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard” is addressed through the City’s criteria 1, 2 and 3 above. Appendix G criterion (c) is addressed through the City’s criteria 4 and 5 above and Appendix G criterion (d) is addressed through the City’s criterion 6. In addition, the analysis below also addresses Appendix G air quality criterion (a) “Conflict with or obstruct implementation of the applicable air quality plan.”

Air Quality Thresholds for Criteria Air Pollutants and Precursors

Bay Area Air District is an expert CEQA commenting agency on air quality within its jurisdiction or impacting its jurisdiction. Under the FCAA, Bay Area Air District has adopted federal attainment plans for O₃ and PM_{2.5}. Bay Area Air District reviews projects to ensure that they would not: (1) cause or contribute to any new violation of any air quality standard; (2) increase the frequency or severity of any existing violation of any air quality standard; or (3) delay timely attainment of any air quality standard or any required interim emission reductions or other milestones of any federal attainment plan.

The Bay Area Air District Thresholds of Significance Justification (2022) establishes thresholds based on substantial evidence within the 2022 CEQA Air Quality Guidelines. The thresholds have been developed by Bay Area Air District to attain CAAQS and NAAQS, which are set at levels protective of human health. Therefore, projects below these thresholds would not violate an air quality standard and would not make a cumulatively considerable contribution to an existing or projected cumulative air quality violation in the Air Basin.

Bay Area Air District’s CEQA Air Quality Guidelines provides significance thresholds for both construction and operations of project. Ultimately the lead agency determines the thresholds of significance for impacts. However, if a project proposes development in excess of the established thresholds, as outlined below in Table 5: Bay Area Air District Emissions Thresholds for Criteria Air Pollutants and Precursors, a significant air quality impact may occur.

Table 5: Bay Area Air District Emissions Thresholds for Criteria Air Pollutants and Precursors			
Criteria Air Pollutants and Precursors	Construction-Related	Operational-Related	
	Average Daily Emissions (pounds/day)	Average Daily Emissions (pounds/day)	Annual Average Emission (tons/year)
Reactive Organic Gases (ROG)	54	54	10
Nitrogen Oxides (NO _x)	54	54	10
Coarse Particulates (PM ₁₀)	82 (exhaust)	82	15
Fine Particulates (PM _{2.5})	54 (exhaust)	54	10
PM ₁₀ /PM _{2.5} (fugitive dust)	Best Management Practice	None	
Local CO	None	9.0 (8-hour average) 20.0 ppm (1-hour average)	
Source: Bay Area Air Quality Management District, 2022 CEQA Air Quality Guidelines, April 2023.			

The City's air quality thresholds of significance are generally based on the thresholds adopted by the Bay Area Air District in the 2022 Guidelines. Pursuant to CEQA, lead agencies must apply appropriate thresholds based on substantial evidence in the record. The City's thresholds rely upon the technical and scientific basis for Bay Area Air District's 2022 thresholds. Thus, impact conclusions in response to City thresholds are also applicable for Bay Area Air District thresholds.

4.2 Methodology

This analysis considers the Project's construction and operational air quality impacts. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod) version 2022.1. 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. Project-specific inputs to the model included types and sizes of land uses proposed for construction, site area, demolition area, infill and off-haul volumes, starting year of construction and construction schedule, duration of the various construction phases, types, number and activity level of equipment used under each phase as well as the number of worker and truck trips associated with each phase. Air quality impacts were assessed according to methodologies recommended by CARB and the Bay Area Air District.

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), stationary sources (emergency fire pumps), off-road sources (yard trucks) and mobile sources (motor vehicles from Project generated vehicle trips). The following off-road and stationary equipment assumptions provided in [Table 6: Off-Road Equipment and Stationary Sources](#) were modeled in CalEEMod.

Table 6: Off-Road Equipment and Stationary Sources						
Equipment Type	Fuel Type	Quantity	Hours/Day	Hours/Year	HP	Load Factor
Emergency Fire Pump	Diesel	1	1	50	350	0.74
Forklifts	Electric	10	8	-	-	-
HP = horsepower						

Project-generated increases in operational emissions would be predominantly associated with motor vehicle use. The Project vehicle trip generation was obtained from the *7825 San Leandro Street Project Transportation Analysis* prepared by Kimley-Horn (March 2026). Based on the *Transportation Analysis* the following assumptions provided in Table 7: Trip Generation, Fleet Mix, and Trip Length Assumptions were modeled in CalEEMod.

Table 7: Trip Generation, Fleet Mix, and Trip Length Assumptions			
Vehicle Categories¹	Trip Generation (daily trips)	Fleet Mix²	Trip Length (miles one-way)
Passenger Vehicles	1,259	CalEEMod Defaults	CalEEMod Defaults
Trucks	180	- Heavy Duty Trucks (HHDT): 60% - Medium Heavy Duty Trucks (MHDT): 23% - Light Heavy Duty Trucks (LHDT2): 18%	7.5 ¹
Total	1,439		
1. Heavy commercial vehicle travel metrics for the US Census Block Group containing the project site were pulled from the ReplicaHQ data platform. Replica uses a diverse set of third-party data from public and private sector sources including mobile location data, consumer resident data, land use data, credit transaction data, and ground truth count data to synthesize travel demand mobility metrics for mega regions across the US with granularity at the Census block group level. Replica returned data for an estimated 186 heavy vehicle trips with data attributes showing trip origin destination and trip length. The expected average truck trip length for the project of 7.5 miles was calculated as the average trip length of these 180 heavy vehicle trips." 2. WSP, <i>RCTC Truck Study and Regional Logistics Mitigation Fee Technical Memorandum 1</i>, October 2017.			

Additionally, the increase of traffic over existing conditions as a result of the Project was obtained from the Project's *Transportation Analysis*. Other operational emissions from area, energy, and stationary sources were quantified in CalEEMod based on land use activity data.

The proposed Project's construction emissions are compared to the daily criteria pollutant emissions significance thresholds in order to determine the significance of the Project's impact on regional air quality. Construction-related health risks are assessed based on diesel particulate matter (DPM) from off-road equipment and haul trucks, as well as the potential release of other toxic air contaminants (TACs) from disturbance of impacted soils, including heavy metals, volatile organic compounds (VOCs), and semi-volatile organic compounds (SVOCs). These pollutants are evaluated in detail in the Project's Health Risk Assessment (Kimley-Horn, 2026).

For operations, Project impacts on sensitive receptors are determined by analyzing diesel particulate matter emissions from heavy-duty truck activity associated with warehouse operations. The proposed Project's impacts related to other emissions (such as those leading to odors) are determined based on Bay Area Air District's land use criteria.

5.0 POTENTIAL IMPACTS

5.1 Air Quality Analysis

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

Bay Area Air District's most recently adopted plan, the Clean Air Plan (2017), outlines how the San Francisco area will attain air quality standards, reduce population exposure and protect public health, and reduce GHG emissions. Bay Area Air District has not established a quantitative threshold of significance for project-level consistency with an air quality plan. However, per Bay Area Air District guidelines, if a project is consistent with Criterion 1 through Criterion 3 (see analysis below), the project would not conflict with or obstruct the implementation of the applicable air plan.

Criterion 1: Does the Project support the primary goals of the Air Quality Plan?

The Clean Air Plan has two paramount goals: (1) protect air quality and health at the regional and local scale by (a) attaining all state and national air quality standards and (b) eliminating disparities among Bay Area communities in cancer health risk from toxic air contaminants, and (2) protect the climate by keeping the Bay Area region on track to achieve the statewide greenhouse gas emission reduction targets in Senate Bill 32 and 2050 goal in Executive Order S-3-05.

The Project supports these two primary goals. Regarding Goal 1(a), as described below, construction and operational air quality emissions generated by the proposed Project would not exceed Bay Area Air District's emissions thresholds for criteria air pollutants. Since the proposed Project would not exceed these thresholds, the proposed Project would not be considered by Bay Area Air District to be a substantial emitter of criteria air pollutants and would not contribute to any non-attainment areas in the Basin and would be consistent with the goal to attain the CAAQS and NAAQS.

Regarding Goal 1(b), as described below, construction and operational cancer health risk from toxic air contaminants would be below Bay Area Air District's project-level and cumulative thresholds. Therefore, the Project would not conflict with the Clean Air Plan's goal to eliminate disparities in Bay Area communities in cancer health risk from toxic air contaminants.

Regarding Goal 2, as discussed in the *7825 San Leandro Street Project Greenhouse Gas Emissions Assessment* (Kimley-Horn, 2026), the Project would be consistent with the ECAP by implementing a Greenhouse Gas Reduction Plan (GHGRP) which aligns with the targets in SB 32 and is designed to put the City on the path to meet the long-term target of carbon neutrality by 2045. Therefore, the Project would not conflict with the second goal of protecting the climate by being consistent with the SB 32 targets and executive orders related to future greenhouse gas emissions.

Criterion 2: Does the Project include applicable control measures from the Air Quality Plan?

The Project is consistent with the 2017 Clean Air Plan policies that are applicable to the Project site. As shown below, projects are considered consistent with the 2017 Clean Air Plan if they incorporate all applicable and feasible control measures from the 2017 Clean Air Plan and would not disrupt or hinder implementation of any 2017 Clean Air Plan control measures. As discussed in [Table 8: Project](#)

Consistency with Applicable Clean Air Plan Control Measures, the Project would comply with City, State, and regional requirements.

Table 8: Project Consistency with Applicable Clean Air Plan Control Measures	
Control Measure	Project Consistency
Stationary Source Control Measures	
SS21: New Source Review of Toxic Air Contaminants	Consistent. The Project would not include uses that would generate new sources of TAC that would impact nearby sensitive receptors.
SS25: Coatings, Solvents, Lubricants, Sealants and Adhesives	Consistent. The Project would comply with Regulation 8, Rule 3: Architectural Coatings, which would dictate the ROG content of paint available for use during construction (also required per SCA-21).
SS26: Surface Prep and Cleaning Solvent	
SS29: Asphaltic Concrete	Consistent. Paving activities associated with the project would be required to utilize asphalt that does not exceed Bay Area Air District emission standards in Regulation 8, Rule 15.
SS30: Residential Fan Type Furnaces	Consistent. Bay Area Air District is the responsible party for implementation of this regulation. The Project would use the latest central furnaces that comply with the applicable regulations. The Project would not conflict with Bay Area Air District's implementation of that measure.
SS31: General Particulate Matter Emissions Limitation	Consistent. This control measure is implemented by the Bay Area Air District through Regulation 6, Rule 1. This Rule Limits the quantity of particulate matter in the atmosphere by controlling emission rates, concentration, visible emissions and opacity. The Project would be required to comply with applicable Bay Area Air District rules.
SS32: Emergency Back-up Generators	Consistent. The Project would not include an emergency generator. However, the Project would include one emergency diesel fire pump. The proposed emergency fire pump will be required to meet the Bay Area Air District's emissions standards for emergency fire pumps.
SS33: Commercial Cooking Equipment	Consistent. The Project does not include the potential development of additional restaurant facilities. However, if any kitchen facilities or restaurants occur and they install a charbroiler, a catalytic oxidizer system must also be installed pursuant to Bay Area Air District Rule 6-2.
SS34: Wood Smoke	Consistent. The Project would comply with Bay Area Air District Regulation 6, Rule 3 and prohibit the construction of wood burning appliances/ fireplaces.
SS36: Particulate Matter from Trackout	Consistent. Mud and dirt that may be tracked out onto the nearby public roads during construction activities would be removed promptly by the contractor based on Bay Area Air District's requirements (also required per SCA-20).
SS37: Particulate Matter from Asphalt Operations	Consistent. Paving and roofing activities associated with the Project would be required to utilize best management practices to minimize the particulate matter created from the transport and application of road and roofing asphalt.
SS38: Fugitive Dust	Consistent. Material stockpiling and track out during grading activities as well as smoke and fumes from paving and roofing asphalt operations would be required to utilize best management practices,

Table 8: Project Consistency with Applicable Clean Air Plan Control Measures	
Control Measure	Project Consistency
	such as watering exposed surfaces twice a day, covering haul trucks, keeping vehicle speeds on unpaved roads under 15 mph, to minimize the creation of fugitive dust (also required per SCA-22, SCA-23, and SCA-24). See City of Oakland SCAs for a more detailed list.
SS40: Odors	Consistent. The Project is a warehouse development and is not anticipated to generate odors. The Project would comply with Bay Area Air District Regulation 7 to strengthen odor standards and enhance enforceability.
Transportation Control Measures	
TR2: Trip Reduction Programs	Consistent. The Project would include a number of travel demand measures (TDM) such as improving pedestrian streetscaping, ADA improvements, restriping pedestrian crosswalks, and signal upgrades. These TDM Programs would help reduce vehicle miles traveled (VMT) and mobile greenhouse gas emissions. Additionally, the Project would implement a mandatory commute trip reduction program, refer to <i>7825 San Leandro Street Project Greenhouse Gas Assessment</i> for more information.
TR8: Ridesharing and Last-Mile Connections	
TR9: Bicycle and Pedestrian Access Facilities	Consistent. Along San Leandro Street, there are 5 to 7 feet wide Class III bike lanes in both directions fencing separating the roadway from the bike lane. Pedestrian crosswalks are present at every intersection with ADA compliant ramps. Construction of the Project will maintain the existing Class III bike lanes and pedestrian facilities along San Leandro Street. The proposed Project would include 16 bicycle parking spaces as well as bicycle and pedestrian access on the driveway.
TR10: Land Use Strategies	Consistent. This measure is a Bay Area Air District funding tool to maintain and disseminate information on current climate action plans and other local best practices and collaborate with regional partners to identify innovative funding mechanisms to help local governments address air quality and climate change in their general plans. In addition, the proposed Project site is located within 2,000 feet of transit stops at 85 th Avenue / San Leandro Street intersection and San Leandro Street / 81 st Avenue intersection. Therefore, these employment opportunities would be easily accessible via transit, furthering the City's General Plan goals to support a healthy community, reduce traffic congestion and decrease greenhouse gas emissions and energy consumption. The Project would not conflict with implementation of this measure.
TR13: Parking Policies	Consistent. The auto parking spaces would include 105 standard spaces, 10 standard electric vehicle (EV) ready spaces, 104 EV capable spaces equipped for future electric charging stations, five ADA accessible car spaces, one EV ready ADA accessible car space, two ADA accessible van spaces, and one EV ready van space.
TR19: Medium and Heavy-Duty Trucks	Consistent. The Project includes a warehousing use that would generate truck trips. However, per the <i>Transportation Analysis</i> prepared for the Project there would be approximately 180 daily truck trips. The Project would not conflict with the implementation of this measure.

Table 8: Project Consistency with Applicable Clean Air Plan Control Measures	
Control Measure	Project Consistency
TR22: Construction, Freight and Farming Equipment	Consistent. The Project would comply through implementation of City SCA-23: Criteria Air Pollutants – Construction and Operation Related which includes BMPs to reduce criteria air pollutants from construction equipment and vehicles.
Energy and Climate Control Measures	
EN1: Decarbonize Electricity Generation	Consistent. The Project would be constructed in accordance with the latest California Building Code and green building regulations/CalGreen.
EN2: Decrease Electricity Demand	
Buildings Control Measures	
BL1: Green Buildings	Consistent. Consistent with City ECAP Checklist, Item 9, the Project would be constructed as all electric building with no natural gas infrastructure. The Project would be constructed in accordance with the latest California Building Code and green building regulations/CalGreen.
L2: Decarbonize Buildings	
BL4: Urban Heat Island Mitigation	Consistent. Consistent with City ECAP Checklist, Item 9, the Project would be constructed as all electric building with no natural gas infrastructure. The Project would demolish the existing structures and associated asphalt surfaces. The Project would include some landscaping.
Natural and Working Lands Control Measures	
NW2: Urban Tree Planting	Not Applicable. The Project includes landscaping with native vegetation and trees.
Waste Management Control Measures	
WA1: Landfills	Consistent. The waste service provider for the Project would be required to meet the AB 341 and SB 939, 1374, and 1383 requirements that require waste service providers to divert and recycle waste. Per Cal Green requirements the Project would recycle construction waste.
WA3: Green Waste Diversion	
WA4: Recycling and Waste Reduction	
Water Control Measures	
WR2: Support Water Conservation	Consistent. The Project would implement water conservation measures and low flow fixtures as required by Title 24, CalGreen, and the City of Oakland’s Municipal Code Section 18.01 Water Efficient Landscaping Ordinance, which includes various specifications for plant types, water features, and irrigation design etc.
Source: Bay Area Air District, Clean Air Plan, 2017 and Kimley-Horn & Associates, 2026.	

As discussed above, the Project would include applicable control measures from the Clean Air Plan.

Criterion 3: Does the Project hinder or disrupt the implementation of any Air Quality Control Measures?

The Clean Air Plan assumptions for projected air emissions and pollutants in the City of Oakland are based on the General Plan Land Use Designation Map which designates the Project site use as General Industry and Transportation and Business Mix. The intent of the General Industry and Transportation designation is to create, preserve and enhance areas of the City that are appropriate for a wide variety of businesses and related commercial and industrial establishments that may have

the potential to generate off-site impacts such as noise, light/glare, odor, and traffic. The intent of the Business Mix designation is to create, preserve, and enhance industrial areas that are appropriate for a wide variety of commercial and industrial establishments. Although the ultimate end use of the Project has not been identified, it is assumed that the use would not require a zoning or General Plan amendment. The building is designed to accommodate a warehouse use, which is consistent with the allowable uses under the current land use designation. Therefore, the Project is consistent with the General Plan assumptions. The proposed Project consists of approximately 310,717 sf of warehouse/office space consistent with the General Plan land use designation and would not increase the regional population growth or cause changes in vehicle traffic that would obstruct implementation of the Clean Air Plan in the San Francisco Bay Area Basin.

Specifically, the Project is anticipated to generate 315 jobs within the City.⁸ ABAG predicts that job opportunities in the North Alameda County Area, which includes the City of Oakland, will grow from 275,000 in 2015 to 358,000 by 2050.⁹ Therefore, the 315 new jobs generated by the Project would be within the ABAG growth projections for the City. Because the Project is consistent with planned land uses for the Project site, the Project would not exceed the level of population or housing in regional planning efforts. Population growth from the Project would be consistent with ABAG's projections for the City and with the City's General Plan and accounted for in Bay Area Air District's assumptions in its Clean Air Plan. Thus, the jobs associated with the Project would not conflict with the Clean Air Plan.

Further, [Table 8](#) outlines the Project's consistency with the applicable 2017 Clean Air Plan policies. Therefore, the Project would not hinder or disrupt the implementation of any 2017 Clean Air Plan Control Measures and impacts would be less than significant.

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

Threshold AQ-2 **Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable state or federal ambient air quality standard?**

The following analysis addresses the City's criteria 1 and 2, refer to *Section 4.1 Air Quality Thresholds* above.

Construction Emissions

Construction associated with the Project would generate short-term emissions of criteria air pollutants. The criteria pollutants of primary concern within the Project area include O₃-precursor pollutants (i.e., ROG and NO_x) and PM₁₀ and PM_{2.5}. Construction-generated emissions are 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 exceeds the Bay Area Air District's thresholds of significance.

⁸ Based on applicant provided information dated November 15, 2024.

⁹ Plan Bay Area, *Forecasting and Modeling Report*, October 2021.
https://planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_Forecasting_Modeling_Report_October_2021.pdf

Construction results in the temporary generation of emissions resulting from site grading, road paving, motor vehicle exhaust associated with construction equipment and worker trips, and the movement of construction equipment, especially on unpaved surfaces. Emissions of airborne particulate matter are largely dependent on the amount of ground disturbance associated with site preparation activities as well as weather conditions and the appropriate application of water.

Project construction activities are estimated to last approximately 22 months, beginning in April 2027 and concluding at the end of January 2029. The Project's construction-related emissions were calculated using the Bay Area Air District-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements.

Project demolition is anticipated to begin in April 2027 and last approximately two months. Project site preparation is anticipated to begin in June 2027 last approximately one month and would export 2,100 cubic yards (cy) of soil. Project grading is anticipated to begin in July 2027 and last approximately one month and would import approximately 18,806 cy of soil. Architectural coating was modeled to be completed January 2029.¹⁰ The exact construction timeline is unknown; however, to be conservative, earlier dates were utilized in the modeling. This approach is conservative given that emissions factors decrease in future years due to regulatory and technological improvements and fleet turnover. See [Appendix A: Air Quality Modeling Data](#) for more information regarding the construction assumptions used in this analysis. Predicted average daily construction-generated emissions for the Project are summarized in [Table 9: Construction-Related Emissions](#).

Table 9: Construction-Related Emissions						
Emissions/Threshold	Average Pounds Per Day					
	ROG	NO_x	Exhaust		Fugitive Dust	
			PM₁₀	PM_{2.5}	PM₁₀	PM_{2.5}
Average Daily Emissions	7.21	19.49	0.65	0.57	4.54	1.37
City and Bay Area Air District Thresholds	54	54	82	54	BMPs	BMPs
Exceed Threshold?	No	No	No	No	No	No
ROG = Reactive Organic Gases; NO _x = Nitrogen Oxides; PM ₁₀ = Particulate Matter 10 microns in diameter or less; PM _{2.5} = Particulate Matter 2.5 microns in diameter or less						
1. Emissions were calculated using CalEEMod. Emissions include compliance with the Bay Area Air District's Basic Construction Mitigation Measures Recommended for All Projects and the City of Oakland Standard Conditions of Approval. These measures include the following: water exposed surfaces two times daily; cover haul trucks; clean track outs with wet powered vacuum street sweepers; limit speeds on unpaved roads to 15 miles per hour; complete paving as soon as possible after grading; limit idle times to 5 minutes; properly maintain mobile and other construction equipment; and post a publicly visible sign with contact information to register dust complaints and take corrective action within 48 hours. 2. Bay Area Air Quality Management District, California Environmental Quality Act Air Quality Guidelines, updated May 2017. 3. BMPs = Best Management Practices. The Bay Area Air District recommends the implementation of all Basic Construction Mitigation Measures, whether or not construction-related emissions exceed applicable significance thresholds. Implementation of Basic Construction Mitigation measures are considered to mitigate fugitive dust emissions to be less than significant.						
Source: CalEEMod version 2022.1. Refer to Appendix A for model outputs.						

Fugitive Dust Emissions. Fugitive dust emissions are associated with land clearing, ground excavation, cut-and-fill operations, demolition, and truck travel on unpaved roadways. Dust emissions also vary substantially from day to day, depending on the level of activity, the specific operations, and weather conditions. Fugitive dust emissions may have a substantial, temporary impact on local air quality. In addition, fugitive dust may be a nuisance to those living and working in the Project vicinity. Uncontrolled dust from construction can become a nuisance and potential

¹⁰ Based on applicant provided information dated January 17, 2025.

health hazard to those living and working nearby. The Bay Area Air District does not have quantitative thresholds for fugitive dust. The Bay Area Air District instead recommends the implementation of all Basic Construction Control Measures, whether or not construction-related emissions exceed applicable significance thresholds. Bay Area Air District recommended Basic Construction Control Measures to reduce fugitive dust emissions are included as part of Oakland's Standard Conditions of Approval (SCA) SCA-22, Dust Controls – Construction Related; see City of Oakland Standard Conditions of Approval above. This SCA would be incorporated as conditions of approval and the City would verify that these measures are incorporated on applicable plans and specifications prior to grading permit issuance. Implementation of SCA-22 ensure that fugitive dust emissions would be less than significant.

Construction Equipment and Worker Vehicle Exhaust. Exhaust emission factors for typical diesel-powered heavy equipment are based on the CalEEMod program defaults. Variables factored into estimating the total construction emissions include: level of activity, length of construction period, number of pieces/types of equipment in use, site characteristics, weather conditions, number of construction personnel, and the amount of materials to be transported onsite or offsite. Exhaust emissions from construction activities include emissions associated with the transport of machinery and supplies to and from the Project site, emissions produced on site as the equipment is used, and emissions from trucks transporting materials and workers to and from the site. Emitted pollutants would include ROG, NO_x, PM₁₀, and PM_{2.5}. As detailed in [Table 9](#), Project construction emissions would not exceed the Bay Area Air District thresholds

ROG Emissions. In addition to gaseous and particulate emissions, the application of asphalt and surface coatings creates ROG emissions, which are O₃ precursors. In accordance with the methodology prescribed by the Bay Area Air District, the ROG emissions associated with paving have been quantified with CalEEMod. The highest concentration of ROG emissions would be generated from architectural coating beginning in Fall 2028. This phase includes the interior and exterior painting as well as striping of all paved parking areas and driveways. Paints would be required to comply with Bay Area Air District Regulation 8, Rule 3: Architectural Coating. Regulation 8, Rule 3 provides specifications on painting practices and regulates the ROG content of paint.

Summary. As shown in [Table 9](#), all criteria pollutant emissions would remain below their respective thresholds. Bay Area Air District considers fugitive dust emissions to be potentially significant without implementation of the Construction Control Measures which help control fugitive dust. The Project would be required to comply with SCA-23: Criteria Air Pollutants – Construction and Operation Related which includes BMPs to reduce criteria air pollutants from construction equipment and vehicles. Therefore, with implementation of the SCAs, the proposed Project's construction would not worsen ambient air quality, create additional violations of federal and state standards, or delay the Basin's goal for meeting attainment standards. Impacts would be less than significant.

Operational Emissions

Operational emissions for industrial developments are typically generated from mobile sources (burning of fossil fuels in cars); energy sources (cooling and heating); area sources (landscape equipment and household products); stationary sources (i.e., emergency fire pump) and off-road equipment (i.e., forklifts). [Table 10: Operational Emissions](#) shows that the Project's maximum

emissions would not exceed Bay Area Air District operational thresholds.

Table 10: Operational Emissions						
Construction Year	Maximum Pounds Per Day					
	ROG	NO _x	Exhaust		Fugitive Dust	
			PM ₁₀	PM _{2.5}	PM ₁₀	PM _{2.5}
Area	9.81	0.11	0.02	0.02	0.00	0.00
Energy ²	-	-	-	-	-	-
Mobile	3.83	5.18	0.06	0.06	8.26	2.09
Off-Road – Forklifts ³	-	-	-	-	-	-
Emergency Fire Pump ³	2.02	1.48	0.10	0.10	0.00	0.00
<i>Total Emissions</i>	<i>15.66</i>	<i>6.77</i>	<i>0.18</i>	<i>0.18</i>	<i>8.26</i>	<i>2.09</i>
Bay Area Air District Thresholds	54	54	82	54	BMPs	BMPs
Exceed Bay Area Air District Threshold?	No	No	No	No	No	No
ROG = Reactive Organic Gases; NO _x = Nitrogen Oxides; PM ₁₀ = Particulate Matter 10 microns in diameter or less; PM _{2.5} = Particulate Matter 2.5 microns in diameter or less 1. The highest values between summer and winter results were used as a worst-case scenario. 2. Consistent with City ECAP Checklist, Item 9, the Project would be constructed as all electric building with no natural gas infrastructure. 3. The Project is estimated to include 10 electric forklifts and 1 emergency fire pump. Source: CalEEMod version 2022.1. Refer to Appendix A for model outputs.						

The Project's 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.
- **Mobile Source Emissions.** Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_x, PM₁₀, and PM_{2.5} are all pollutants of regional concern. NO_x and ROG react with sunlight to form O₃, known as photochemical smog. Additionally, wind currents readily transport PM₁₀ and PM_{2.5}. However, CO tends to be a localized pollutant, dispersing rapidly at the source.

Project-generated vehicle emissions are based on trip generation data within the Traffic Analysis and have been incorporated into CalEEMod, as recommended by the Bay Area Air District. Per the Traffic Analysis, the Project would generate 1,439 total daily vehicle trips, which includes 180 daily truck trips.

- **Off-Road Equipment Emissions.** Operational off-road emissions would be generated by off-road cargo handling equipment used during operational activities. Based on information provided by the Applicant the Project would include 10 electric forklifts.
- **Emergency Fire Pump.** The Project would include the installation of one emergency diesel fire pump. The emergency fire pump would emit pollutants that are either of regional or local concerns like VOC, NO_x, PM₁₀, and PM_{2.5}. The Project would include an emergency diesel fire pump that would operate during emergencies, testing and maintenance. Emissions from the fire pump would be infrequent and would not be constant. Further, the emergency fire pump operation must comply with the "Stationary Diesel Engine ATCM" section 93115 of the

California Code of Regulations, which primarily limits non-emergency operation to a maximum of 50 hours per year for maintenance and testing purposes.

Total Operational Emissions. Federal and state ambient air quality standards for criteria air pollutants have been set to protect public health, with an adequate margin of safety, and the climate. The Bay Area Air District thresholds for criteria air pollutants represent the level of emissions a project can have while allowing the air basin to attain federal and state ambient air quality standards. As indicated in [Table 10](#), the Project would not have a significant impact on criterial air pollutants during operation. Therefore, the Project would not violate any air quality standards or contribute substantially to an existing or projected air quality violation and no criteria pollutant health impacts would occur. Project operational emissions would be less than significant.

Cumulative Construction Emissions

The Basin is designated nonattainment for the O₃, PM₁₀, and PM_{2.5} CAAQS and nonattainment for the O₃ and PM_{2.5} NAAQS. The Bay Area Air District developed the construction thresholds of significance based on the level above which a project's individual emissions would result in a cumulatively considerable contribution to the Basin's existing air quality conditions. Therefore, a project that exceeds the Bay Area Air District thresholds would also be a cumulatively considerable contribution to a significant cumulative impact.¹¹

In general, the construction emissions of any given project would not be cumulatively considerable if they do not exceed Bay Area Air District project level thresholds. Since Bay Area Air District thresholds indicate whether an individual project's emissions have the potential to affect cumulative regional air quality, it can be expected that an individual project that exceeds these thresholds would result in a cumulative short-term impact. Project level cumulative construction emissions would not exceed thresholds because the Project would not exceed Bay Area Air District's project level thresholds. Furthermore, the Bay Area Air District recommends Basic Construction Mitigation Measures for all projects whether construction-related emissions exceed the thresholds of significance. Other projects would comply with the recommended measures through individual CEQA review and through compliance with Bay Area Air District Regulations. Compliance with Bay Area Air District construction-related mitigation requirements are considered to reduce cumulative impacts at a Basin-wide level. As a result, construction emissions associated with the Project would not result in a cumulatively considerable contribution to significant cumulative air quality impacts from construction.

Cumulative Operational Impacts

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

¹¹ In developing thresholds of significance for air pollutants, Bay Area Air District considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions (Bay Area Air District CEQA Guidelines page 2-1).

cumulatively considerable contribution to the Basin's existing air quality conditions. Therefore, a project that exceeds the Bay Area Air District operational thresholds would also be a cumulatively considerable contribution to a significant cumulative impact for operations.

As shown in [Table 10: Operational Emissions](#) the Project's operational emissions would not exceed Bay Area Air District thresholds. As a result, operational emissions associated with the Project would not result in a cumulatively considerable contribution to significant cumulative air quality impacts from operations.

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact with SCAs.

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

The following analysis addresses the City's criteria 3, 4, and 5, refer to *Section 4.1 Air Quality Thresholds* above.

Sensitive land uses are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. The State CEQA Guidelines indicate that a potentially significant impact could occur if a project would expose sensitive receptors to substantial pollutant concentrations. Additionally, the Bay Area Air District CEQA Air Quality Guidelines (April 2022) recognize that worker exposures should be evaluated where they are reasonably foreseeable, particularly in cases of long-term employment near sources of air contaminants.

Carbon Monoxide Hotspots

Intersection Hotspots. The primary mobile-source criteria pollutant of local concern is CO. Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Transport of this criteria pollutant is extremely limited; CO disperses rapidly with distance from the source under normal meteorological conditions. Under certain meteorological conditions, however, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Areas of high CO concentrations, or "hot spots," are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours. CO concentration modeling is therefore typically conducted for intersections that are projected to operate at unacceptable levels of service during peak commute hours.

The Basin is designated as attainment for CO. Emissions and ambient concentrations of CO have decreased dramatically in the Basin with the introduction of the catalytic converter in 1975. No exceedances of the CAAQS or NAAQS for CO have been recorded at nearby monitoring stations since 1991. As a result, the Bay Area Air District screening criteria notes that CO impacts may be determined to be less than significant if a project would not increase traffic volumes at local intersections to more than 44,000 vehicles per hour, or 24,000 vehicles per hour for locations in

heavily urban areas, where “urban canyons” formed by buildings tend to reduce air circulation. Traffic would increase along surrounding roadways during long-term operational activities.

In Oakland, only the MacArthur Maze portion of Interstate 580 exceeds the 44,000 vehicles per hour screening criteria, which is approximately seven miles north of the Project site and would therefore not result in elevated CO concentrations at the Project site. Further, ambient CO standards have not been exceeded in the Bay Area for over a decade, largely due to reformulated fuels in California and vehicle emissions controls, as discussed above. Further, according to the *Transportation Analysis* prepared for the Project (Kimley Horn, 2026), the Project would generate 1,439 daily trips. The Project’s effects to existing vehicle distribution and travel speeds would be nominal and would not involve intersections with more than 24,000 or 44,000 vehicles per hour. Therefore, development under the Project would not be required to estimate localized CO concentrations as it would not contribute to CO concentrations exceeding the CAAQS or NAAQS. The impact would be less than significant, and no mitigation measures are required.

Carcinogenic Risk

The closest sensitive receptor to the Project site is the single family residence to the north of the Project site. Bay Area Air District provides guidance for evaluating impacts from TACs in its CEQA Air Quality Guidelines document. Construction equipment and associated heavy-duty truck traffic generate diesel exhaust, which is a known TACs. Additionally, due to past land uses and impacts encountered on the Project site, demolition activities may disturb soil, soil gas, and potentially groundwater containing contaminants, resulting in potential exposure of offsite populations to TACs. Accordingly, this analysis evaluates TAC impacts associated with the disturbance of impacted soil during construction. Long-term operations of the Project would generate ongoing diesel emissions from heavy-duty trucks traveling to and from the Project site for goods movement. These operational truck trips, which occur on a daily basis, represent a substantial long-term source of DPM emissions and may also contribute to localized health risks at sensitive receptors in proximity to the site.

As noted therein, an incremental cancer risk of greater than 10 cases per million at the Maximally Exposed Individual (MEI) will result in a significant impact. Bay Area Air District considers exposure to annual PM_{2.5} concentrations that exceed 0.3 µg/m³ from a single source to be significant. The Bay Area Air District significance threshold for non-cancer hazards is 1.0. It is noted that the analysis below summarizes the findings of the Project’s *Health Risk Assessment* prepared by Kimley-Horn, refer to the HRA for detailed modeling and analysis assumptions.

Particulate Matter Concentration, TACs, and Carcinogenic Risk

Project construction would generate DPM emissions from the use of off-road diesel equipment required for grading and excavation, paving, and other construction activities. For construction activity, DPM is the primary toxic air contaminant of concern. On-road diesel-powered haul trucks traveling to and from the construction area to deliver materials and equipment are less of a concern because they would not stay on the site for long durations. In addition, disturbance of impacted soils at the Project site could release other TACs, including heavy metals, VOCs, and SVOCs, through fugitive dust emissions. While on-road diesel-powered haul trucks traveling to and from the construction area would also emit DPM, their contribution is less significant because of their limited on-site duration. Overall, diesel exhaust and fugitive dust emissions from impacted soils (including

heavy metals, VOCs, and SVOCs) during construction have the potential to pose health risks to nearby sensitive receptors. Refer to the Project's *Health Risk Assessment* (Kimley-Horn, 2026) for detailed information on impacted soils.

Health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer. The use of diesel-powered construction equipment would be episodic and would occur in various phases throughout the Project site. Additionally, construction activities would limit idling to no more than five minutes (per City and State standards, see SCAs above), which would further reduce nearby sensitive receptors' exposure to temporary and variable DPM emissions. Furthermore, even during the most intense year of construction, emissions of DPM would be generated from different locations on the Project site rather than in a single location because different types of construction activities (e.g., site preparation and building construction) would not occur at the same place at the same time.

In addition to short-term construction emissions, long-term operation of the Project would generate ongoing DPM emissions from heavy-duty diesel trucks traveling to and from the site for goods movement. These operational truck trips, which would occur daily, represent a substantial source of localized DPM emissions and could contribute to long-term health risks at nearby sensitive receptors. It should be noted that the Project would be required to comply with City's SCA-27 to reduce risks from truck activity. The closest sensitive receptor is the single-family residence approximately 625 feet northeast of the Project site.

PM_{2.5} construction emissions rates in grams per second were calculated from the total annual on-site exhaust emissions reported in CalEEMod total during construction. It shall be noted that although construction would span over several years, the modeling conservatively uses the year with the highest emission for each phase. Annual emissions were converted to grams per second and these emissions rates were input into AERMOD. Maximum (worst case) PM_{2.5} exhaust construction emissions over the entire construction period were used in AERMOD to approximate construction DPM emissions. Annual PM_{2.5} exhaust emissions were calculated using trip data and an Emission Factor (EMFAC) and were used in AERMOD to approximate operational DPM emissions. This included emissions from on-site truck activity such as idling, loading, and unloading, as well as roadway travel to and from the Project site.

Risk levels were calculated based on the California Office of Environmental Health Hazard Assessment (OEHHA) guidance document, *Air Toxics Hot Spots Program Risk Assessment Guidelines* (February 2015), the *Bay Area Air District Air Toxics Control Program Health Risk Assessment Guidelines* (December 2021), and the *Bay Area Air District Health Risk Assessment Modeling Protocol* (December 2020). Results of this assessment are summarized in [Table 11: DPM Particulate Matter Concentration and Carcinogenic Risk](#) and [Table 12: Multipollutant Carcinogenic Risk](#). The reported annual pollutant concentrations are at the closest maximally exposed individual (MEI). The maximally exposed individual resident (MEIR) is located 625 feet northeast of the Project site and maximally exposed individual worker (MEIW) is located 50 feet east of the Project site (refer to [Table 4](#)).

As shown in [Table 11](#), the construction risk associated with DPM emissions at residential and the off-site commercial worker receptors would be 0.09 and 0.07 in one million, respectively. Additionally, the operational cancer risk associated with DPM emissions at residential and the off-site worker receptors would be 0.13 and 0.15 in one million, respectively. The combined construction and operational cancer risk associated with DPM emissions at the residential and off-

site worker receptors would be 0.19 and 0.22 in one million, respectively. Therefore, the maximum construction, operational cancer risk and combined construction and operational cancer risk associated with DPM emissions would not exceed the Bay Area Air District threshold of 10 in one million. Additionally, the maximum PM_{2.5} concentrations generated by DPM emissions during Project construction and operations and combined construction and operations would not exceed the Bay Area Air District threshold of 0.3 µg/m³ at any of the receptors.

Table 11: DPM Particulate Matter Concentration and Carcinogenic Risk					
Exposure Scenario¹	PM_{2.5} Annual Concentration (µg/m³)	PM_{2.5} Threshold (µg/m³)	Cancer Risk (Risk per Million)²	Significance Threshold (Risk per Million)	Exceeds Risk Significance Threshold?
Construction					
Residential Receptor	0.02	0.30	0.09	10	No
Off-Site Worker Receptor	0.21	0.30	0.07	10	No
Operations					
Residential Receptor	<0.01	0.30	0.13	10	No
Off-Site Worker Receptor	0.01	0.30	0.15	10	No
Combined Construction + Operations					
Residential Receptor	0.03	0.30	0.19	10	No
Off-Site Worker Receptor	0.22	0.30	0.22	10	No
1. The reported annual pollutant concentration is at the closest maximally exposed individual (MEI) to the Project site. The maximally exposed individual resident (MEIR) is located 625 feet northeast of the Project site and maximally exposed individual worker (MEIW) is located 50 feet east of the Project site. 2. Exposure scenario is the risk from DPM.					
Source: Refer to HRA Report Appendix A: Modeling Data .					

Table 12: Multipollutant Carcinogenic Risk shows the health risk associated with contaminant of potential concern (COPC) TAC emissions from impacted soils (including heavy metals, VOCs, and SVOCs) during construction. As shown in Table 12, the total construction risk associated with emissions from impacted soils at residential and the off-site worker receptors would be approximately 0.002 and 0.005 in one million, respectively. Therefore, the maximum construction cancer risk associated with emissions from impacted soils would not exceed the Bay Area Air District threshold of 10 in one million.

Table 12: Multipollutant Carcinogenic Risk				
Pollutant Type	Exposure Scenario¹	Cancer Risk (Risk per Million)²	Significance Threshold (Risk per Million)	Exceeds Risk Significance Threshold?
Construction				
Metals	Residential Receptor	0.002	10	No
	Off-Site Worker Receptor	0.005	10	No
VOCs	Residential Receptor	<0.001	10	No
	Off-Site Worker Receptor	<0.001	10	No
SVOCs	Residential Receptor	<0.001	10	No
	Off-Site Worker Receptor	<0.001	10	No
Total Multipollutant	Residential Receptor	0.002	10	No
	Off-Site Worker Receptor	0.005	10	No
1. The maximally exposed individual resident (MEIR) is located 625 feet northeast of the Project site and maximally exposed individual worker (MEIW) is located 50 feet east of the Project site. 2. Exposure scenario is the risk from COPCs (including heavy metals, VOCs, and SVOCs).				
Source: Refer to HRA Report Appendix A: Modeling Data .				

Non-Carcinogenic Hazard

The significance thresholds for TAC exposure also require an evaluation of non-cancer risk stated in terms of a hazard index. Non-cancer chronic impacts are calculated by dividing the annual average concentration by the REL for that substance. The REL is defined as the concentration at which no adverse non-cancer health effects are anticipated. RELs are designed to protect sensitive individuals within the population. According to OEHHA, the REL for DPM is 5 and the target organ is the respiratory system.¹² Refer to the Project's *Health Risk Assessment* (Kimley-Horn, 2026) for the non-cancer risks for all other COPC determined using the RELs.

Chronic non-carcinogenic impacts associated with DPM from Project construction and operations are shown in Table 13: DPM Chronic Hazard Assessment**Error! Reference source not found..** A chronic hazard index of 1.0 is considered individually significant. The hazard index is calculated by dividing the chronic exposure by the reference exposure level. The chronic hazard was calculated based on the highest annual average concentration at the MEI receptors. It should be noted that there is no acute REL for DPM and acute health risk cannot be calculated.

Table 13: DPM Chronic Hazard Assessment		
Exposure Scenario^{1,2}	Concentration (µg/m³)¹	Chronic Hazard
Construction		
Residential Receptor	<0.001	<0.001
Off Site Worker Receptor	0.003	0.023
Operation		
Residential Receptor	<0.001	<0.001
Off Site Worker Receptor	<0.001	<0.001
<i>Bay Area Air District Threshold</i>	<i>1.0</i>	<i>1.0</i>
Threshold Exceeded?	No	No
1. The reported annual pollutant concentration is at the closest maximally exposed individual (MEI) to the Project site. The maximally exposed individual resident (MEIR) is located 625 feet northeast of the Project site and maximally exposed individual worker (MEIW) is located 50 feet east of the Project site. 2. Exposure scenario is the risk from DPM.		
Source: Refer to <u>Appendix A</u> .		

Chronic, acute, and 8-hour non-carcinogenic impacts associated with COPC TAC emissions from impacted soils (including heavy metals, VOCs, and SVOCs) from Project construction are shown in Table 14: Multipollutant Chronic and Acute Hazard Assessment. A chronic, acute, and 8-hour hazard index of 1.0 is considered individually significant. The hazard index is calculated by dividing the chronic exposure by the reference exposure level. The chronic hazard was calculated based on the highest annual average concentration at the MEI receptors.

¹⁰ California Office of Environmental Health Hazard Assessment, *OEHHA Acute, 8-hour and Chronic Reference Exposure Level (REL) Summary*, available at <https://oehha.ca.gov/air/general-info/oehha-acute-8-hour-and-chronic-reference-exposure-level-rel-summary>.

Table 14: Multipollutant Chronic and Acute Hazard Assessment				
Pollutant Type	Exposure Scenario^{1,2}	Chronic Hazard	Acute Hazard	8-hour
Construction				
Metals	Residential Receptor	<0.001	0.001	0.010
	Off Site Worker Receptor	0.023	0.003	0.151
VOCs	Residential Receptor	<0.001	0.008	0.001
	Off Site Worker Receptor	<0.001	0.074	0.008
SVOCs	Residential Receptor	<0.001	<0.001	<0.001
	Off Site Worker Receptor	<0.001	<0.001	<0.001
Total Multipollutant	Residential Receptor	<0.001	0.009	0.011
	Off Site Worker Receptor	0.023	0.077	0.159
<i>Bay Area Air District Threshold</i>		<i>1.0</i>	<i>1.0</i>	<i>1.0</i>
Threshold Exceeded?		No	No	No
1. The maximally exposed individual resident (MEIR) is located 625 feet northeast of the Project site and maximally exposed individual worker (MEIW) is located 50 feet east of the Project site. 2. Exposure scenario is the risk from COPCs (including heavy metals, VOCs, and SVOCs).				
Source: Refer to Appendix A.				

The highest maximum chronic hazard index associated with both DPM and COPC TAC emissions from Project construction would be less than 0.001 at the residential receptor and 0.023 at the off-site worker receptor. Additionally, the highest maximum chronic hazard index associated with DPM emissions from Project operations would be less than 0.001 at the residential receptor as well as the off-site worker receptor. The highest acute hazard index associated with Project construction would be 0.009 at the residential receptor and 0.077 at the off-site worker receptor. The highest maximum 8-hour hazard index associated with Project construction would be 0.011 at the residential receptor and 0.159 at the off-site worker receptor. Therefore, construction and operational non-carcinogenic hazards associated with both DPM and COPC TAC emissions would not exceed the acceptable limits of 1.0 and impacts would be less than significant.

Cumulative Health Risk Analysis

The Bay Area Air District recommends that the cumulative analysis combine the risks and hazards from existing sources within 1,000 feet of the project's sources with the risks and hazards from the project's sources. Therefore, mobile and stationary sources¹³ within a 1,000-foot radius of the Project site were reviewed using Bay Area Air District's Stationary Source Screening Analysis Tools per Bay Area Air District CEQA Guidelines. There were six stationary sources located within a 1,000-foot radius of the Project site, as indicated in [Table 15: Cumulative Operational Health Risk](#).

[Table 15](#) shows that cumulative impacts related to cancer risk and hazard would be less than cumulatively considerable and within acceptable limits. Additionally, cumulative PM_{2.5} concentrations would not exceed Bay Area Air District's cumulative threshold of 0.8 µg/m³. The existing highway sources has a PM_{2.5} concentration (0.22 µg/m³). The existing highway sources

¹³ Stationary sources are defined as sources that remain in a single location while they are operating.

represent approximately 60 percent of the total concentrations and are unrelated to the Project. The Project represents less than three percent of total cumulative PM_{2.5} in the Project area.

The Project and the cumulative project total PM_{2.5} concentrations and cancer risk would not exceed Bay Area Air District cumulative thresholds. Therefore, the combined effects from both the proposed Project and related projects would not be cumulatively significant. The Project is also below Bay Area Air District's incremental health risk thresholds. Therefore, the incremental effect of the individual Project is also less than cumulatively considerable.¹⁴ As the related cumulative TAC sources in the Project area do not exceed Bay Area Air District cumulative thresholds for cancer risk and the Project does not exceed Bay Area Air District incremental thresholds, impacts would not be cumulatively considerable. Therefore, the Project's cumulative impacts would be less than cumulatively considerable.

Table 15: Cumulative Operational Health Risk			
Emissions Sources	PM_{2.5} (µg/m³)	Cancer Risk (Risk per Million)	Hazard
Project Emissions (Combined Construction + Operations)	0.03	0.19	0.12
Major Street Sources¹	0.06	3.25	0.24
Highway Sources¹	0.22	12.78	0.88
Railway Sources¹	0.01	8.04	0.04
Stationary Sources			
835 75th Avenue	0.00	0.00	0.00
8200 Baldwin Street	0.00	0.00	0.00
700 71st Avenue	0.00	0.00	0.00
900A 77th Avenue	0.00	0.90	0.00
8255 San Leandro Street	0.00	1.17	0.01
8300 Baldwin Street	0.07	10.46	0.64
Cumulative Health Risk Values	0.39	36.79	1.93
<i>Bay Area Air District Cumulative Threshold</i>	<i>0.8</i>	<i>100</i>	<i>10</i>
Threshold Exceeded?	No	No	No
1. Bay Area Air District GIS data.			
Source: Bay Area Air District's Stationary Source Data and GIS Mapping Tools, 2025.			

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

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

The following analysis addresses the City's criteria 6, refer to *Section 4.1 Air Quality Thresholds* above.

¹⁴ CEQA case law has held that any additional emissions in an impacted area does not necessarily create a significant cumulative impact, finding that "the 'one [additional] molecule rule' is not the law" (*Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal. App. 4th 98, 120).

Construction

Construction activities associated with the Project may generate detectable odors from heavy duty equipment (i.e., diesel exhaust), as well as from architectural coatings and asphalt off-gassing. Odors generated from the referenced sources are common in the man-made environment and are not known to be substantially offensive to adjacent receptors. Any construction-related odors would be short-term in nature and cease upon Project completion. As a result, impacts to existing adjacent land uses from construction-related odors would be short-term in duration and therefore would be less than significant.

Operational

Bay Area Air District has established odor screening thresholds for land uses that have the potential to generate substantial odor complaints, including wastewater treatment plants, landfills or transfer stations, composting facilities, confined animal facilities, food manufacturing, and chemical plants. Bay Area Air District's thresholds for odors are qualitative based on Bay Area Air District's Regulation 7, Odorous Substances. This rule places general limitations on odorous substances and specific emission limitations on certain odorous compounds.

The Project includes a 310,717 square foot warehouse and office building which is not anticipated to generate odors. None of the above listed odor generating uses are located near the Project site. Impacts would be less than significant.

Mitigation Measures: Compliance with SCAs and applicable state and local law would reduce impacts associated with odors to a less than significant level. No additional site-specific mitigation measures are required.

Level of Significance: Less than significant impact.

6.0 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

Cumulative Setting

The cumulative setting for air quality includes the City and the Air Basin. The Air Basin is designated as nonattainment for the O₃, PM₁₀, and PM_{2.5} CAAQS and nonattainment for the O₃ and PM_{2.5} NAAQS, and is designated as 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 NAAQS and CAAQS.

Cumulative Impacts and Mitigation Measures

The Bay Area Air District CEQA Air Quality Guidelines do not include separate significance thresholds for cumulative operational or construction emissions that result in criteria air pollutants. However, with respect to regional air pollution, the development of the Project would result in population growth that is consistent with ABAG projections and the City General Plan. Therefore, the Project would be consistent with the 2017 Clean Air Plan that uses ABAG population forecasts.

As described in Threshold AQ-1, the Project would also be consistent with the appropriate 2017 Clean Air Plan control measures, which are provided to reduce air quality emissions for the entire Bay Area region. Additionally, the discussion in Threshold AQ-2 addresses cumulative impacts and

demonstrates that the Project would not exceed the applicable Bay Area Air District thresholds for construction or operations. The Bay Area Air District CEQA Air Quality Guidelines note that the nature of air emissions is largely a cumulative impact. As a result, no single project is sufficient in size by itself to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. As mentioned on pages 2-10, 2-12, and 2-14 of the Bay Area Air District CEQA Guidelines (2022), if the project emissions of criteria air pollutants or its precursors are below the Bay Area Air District Thresholds of Significance, the project would result in a less than significant cumulative impact.

Consistency with the 2017 Clean Air Plan control measures would ensure that the Project would not make a cumulatively considerable contribution to air quality impacts in the Basin. In addition, in the discussion above in Threshold AQ-3 and Threshold AQ-4 the Project would not exceed the applicable Bay Area Air District thresholds for exposure of sensitive receptors to substantial pollutant concentrations after mitigation nor for other emissions (such as those leading to odors) adversely affecting a substantial number of people. Therefore, impacts would be less than significant and less than cumulatively considerable.

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

7.0 REFERENCES

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Appendix A

Modeling Data

Oakland Foundry Detailed Report

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5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

- 5.6.2. Construction Earthmoving Control Strategies
- 5.7. Construction Paving
- 5.8. Construction Electricity Consumption and Emissions Factors
- 5.18. Vegetation
 - 5.18.1. Land Use Change
 - 5.18.1.1. Unmitigated
 - 5.18.1. Biomass Cover Type
 - 5.18.1.1. Unmitigated
 - 5.18.2. Sequestration
 - 5.18.2.1. Unmitigated
- 6. Climate Risk Detailed Report
 - 6.1. Climate Risk Summary
 - 6.2. Initial Climate Risk Scores
 - 6.3. Adjusted Climate Risk Scores
 - 6.4. Climate Risk Reduction Measures
- 7. Health and Equity Details
 - 7.1. CalEnviroScreen 4.0 Scores
 - 7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

8.1. Justifications

8.4. Construction

8.4.1. Construction Phases

8.4.6. Trips and VMT

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Oakland Foundry
Construction Start Date	4/1/2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.90000
Precipitation (days)	39.0000
Location	7825 San Leandro St, Oakland, CA 94621, USA
County	Alameda
City	Oakland
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1435
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.43

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
Unrefrigerated Warehouse-No Rail	310.717	1000sqft	7.13308	310,717	78,408.0	—	—	—
Parking Lot	338.373	1000sqft	7.76798	0.00000	0.00000	—	—	—

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.	5.57930	3.28278	62.4431	40.4026	0.30404	1.76870	13.9416	15.7103	1.44337	4.25068	5.69406	—	42,890.2	42,890.2	1.99675	5.87986	75.6218	44,768.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	52.4353	52.2102	25.6303	27.8797	0.06093	1.04307	3.75473	4.79780	0.95962	1.46372	2.42334	—	6,752.80	6,752.80	0.27162	0.26361	0.16458	6,777.62
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.42862	7.20636	19.4883	16.2143	0.06655	0.65361	4.54465	5.19827	0.57311	1.36691	1.94001	—	8,765.35	8,765.35	0.40420	0.92691	5.09411	9,056.76
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.35572	1.31516	3.55662	2.95911	0.01215	0.11928	0.82940	0.94868	0.10459	0.24946	0.35405	—	1,451.20	1,451.20	0.06692	0.15346	0.84339	1,499.45

2.2. Construction Emissions by Year

2.2.1. Total Construction Emissions by Year, Unmitigated

Includes both onsite and offsite emissions.

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	5.57930	3.28278	62.4431	40.4026	0.30404	1.76870	13.9416	15.7103	1.44337	4.25068	5.69406	—	42,890.2	42,890.2	1.99675	5.87986	75.6218	44,768.0					
2028	2.20364	1.83700	12.8817	20.6975	0.04515	0.39861	1.43762	1.83623	0.36823	0.35200	0.72024	—	6,076.16	6,076.16	0.22206	0.22595	6.34618	6,155.39					
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	3.56769	3.00089	25.6303	27.8797	0.06093	1.04307	3.75473	4.79780	0.95962	1.46372	2.42334	—	6,752.80	6,752.80	0.27162	0.06045	0.01468	6,777.62					
2028	52.4353	52.2102	13.0122	20.2192	0.04515	0.39861	1.43762	1.83623	0.36823	0.35200	0.72024	—	6,000.17	6,000.17	0.22782	0.26361	0.16458	6,084.58					
2029	50.7304	50.7072	0.85124	1.80438	0.00173	0.01284	0.21576	0.22860	0.01181	0.05057	0.06239	—	328.476	328.476	0.01002	0.00954	0.01531	331.586					
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	2.16582	1.59669	19.4883	16.2143	0.06655	0.65361	4.54465	5.19827	0.57311	1.36691	1.94001	—	8,765.35	8,765.35	0.40420	0.92691	5.09411	9,056.76					
2028	7.42862	7.20636	8.10663	12.6518	0.02664	0.26050	0.79168	1.05217	0.24046	0.19329	0.43376	—	3,515.42	3,515.42	0.13179	0.14255	1.52279	3,562.72					
2029	3.07751	3.07607	0.05116	0.10829	0.00010	0.00078	0.01276	0.01354	0.00072	0.00299	0.00370	—	20.0076	20.0076	0.00057	0.00058	0.01548	20.2099					
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.39526	0.29140	3.55662	2.95911	0.01215	0.11928	0.82940	0.94868	0.10459	0.24946	0.35405	—	1,451.20	1,451.20	0.06692	0.15346	0.84339	1,499.45					
2028	1.35572	1.31516	1.47946	2.30896	0.00486	0.04754	0.14448	0.19202	0.04388	0.03528	0.07916	—	582.017	582.017	0.02182	0.02360	0.25212	589.848					
2029	0.56165	0.56138	0.00934	0.01976	0.00002	0.00014	0.00233	0.00247	0.00013	0.00054	0.00068	—	3.31249	3.31249	0.00009	0.00010	0.00256	3.34599					

2.2.2. Onsite 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	3.74034	3.14292	28.7848	29.2967	0.06093	1.19316	9.77769	10.5736	1.09770	3.94048	5.03819	—	6,598.08	6,598.08	0.26765	0.05353	0.00000	6,620.72
2028	1.70813	1.43116	11.1662	15.8845	0.03572	0.37975	0.00000	0.37975	0.34937	0.00000	0.34937	—	3,731.27	3,731.27	0.15136	0.03027	0.00000	3,744.08

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	3.50534	2.94546	25.5801	27.2816	0.06093	1.04307	3.58940	4.63247	0.95962	1.42496	2.38459	—	6,598.08	6,598.08	0.26765	0.05353	0.00000	6,620.72						
2028	52.3032	52.0932	11.1662	15.8845	0.03572	0.39451	0.00000	0.39451	0.36295	0.00000	0.36295	—	3,731.27	3,731.27	0.15136	0.03027	0.00000	3,744.08						
2029	50.6610	50.6395	0.79416	1.11216	0.00173	0.01284	0.00000	0.01284	0.01181	0.00000	0.01181	—	133.510	133.510	0.00542	0.00108	0.00000	133.968						
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.80166	1.51356	13.3147	13.8032	0.02882	0.54223	2.93110	3.47333	0.49885	0.92771	1.42655	—	3,109.05	3,109.05	0.12612	0.02522	0.00000	3,119.72						
2028	7.15812	6.98486	7.13006	10.2553	0.02160	0.25042	0.00000	0.25042	0.23039	0.00000	0.23039	—	2,260.06	2,260.06	0.09168	0.01834	0.00000	2,267.81						
2029	3.07337	3.07206	0.04818	0.06747	0.00010	0.00078	0.00000	0.00078	0.00072	0.00000	0.00072	—	8.09941	8.09941	0.00033	0.00007	0.00000	8.12721						
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.32880	0.27623	2.42994	2.51909	0.00526	0.09896	0.53493	0.63388	0.09104	0.16931	0.26035	—	514.738	514.738	0.02088	0.00418	0.00000	516.504						
2028	1.30636	1.27474	1.30124	1.87159	0.00394	0.04570	0.00000	0.04570	0.04205	0.00000	0.04205	—	374.178	374.178	0.01518	0.00304	0.00000	375.462						
2029	0.56089	0.56065	0.00879	0.01231	0.00002	0.00014	0.00000	0.00014	0.00013	0.00000	0.00013	—	1.34095	1.34095	0.00005	0.00001	0.00000	1.34555						

2.2.3. Offsite 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	2.07396	0.33732	36.8630	13.1210	0.24311	0.72563	10.3358	11.0614	0.48375	2.82323	3.30699	—	36,292.2	36,292.2	1.72910	5.82633	75.6218	38,147.3
2028	0.49551	0.40584	1.71551	4.81302	0.00943	0.01886	1.43762	1.45648	0.01886	0.35200	0.37087	—	2,344.89	2,344.89	0.07070	0.19568	6.34618	2,411.31
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.06235	0.05542	0.05022	0.59803	0.00000	0.00000	0.16533	0.16533	0.00000	0.03875	0.03875	—	154.722	154.722	0.00397	0.00692	0.01468	156.899
2028	0.48176	0.39033	1.84597	4.33466	0.00943	0.01886	1.43762	1.45648	0.01886	0.35200	0.37087	—	2,268.90	2,268.90	0.07646	0.23334	0.16458	2,340.51
2029	0.06945	0.06773	0.05708	0.69222	0.00000	0.00000	0.21576	0.21576	0.00000	0.05057	0.05057	—	194.967	194.967	0.00460	0.00846	0.01531	197.618

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.36416	0.08313	6.17359	2.41110	0.03774	0.11139	1.61355	1.72494	0.07426	0.43920	0.51346	—	5,656.30	5,656.30	0.27809	0.90169	5.09411	5,937.05	—	—	—	—	—	—
2028	0.27050	0.22150	0.97657	2.39653	0.00504	0.01008	0.79168	0.80175	0.01008	0.19329	0.20337	—	1,255.36	1,255.36	0.04012	0.12422	1.52279	1,294.90	—	—	—	—	—	—
2029	0.00414	0.00400	0.00298	0.04082	0.00000	0.00000	0.01276	0.01276	0.00000	0.00299	0.00299	—	11.9082	11.9082	0.00024	0.00051	0.01548	12.0827	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.06646	0.01517	1.12668	0.44003	0.00689	0.02033	0.29447	0.31480	0.01355	0.08015	0.09371	—	936.465	936.465	0.04604	0.14928	0.84339	982.946	—	—	—	—	—	—
2028	0.04937	0.04042	0.17822	0.43737	0.00092	0.00184	0.14448	0.14632	0.00184	0.03528	0.03711	—	207.839	207.839	0.00664	0.02057	0.25212	214.386	—	—	—	—	—	—
2029	0.00076	0.00073	0.00054	0.00745	0.00000	0.00000	0.00233	0.00233	0.00000	0.00054	0.00054	—	1.97154	1.97154	0.00004	0.00008	0.00256	2.00043	—	—	—	—	—	—

3. Construction Emissions Details

3.1. Demolition (2027)

3.1.1. Onsite - 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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.63907	2.21478	19.9005	18.6307	0.03253	0.79594	—	0.79594	0.73226	—	0.73226	—	3,426.90	3,426.90	0.13901	0.02780	—	3,438.66
Demolition	—	—	—	—	—	—	9.77769	9.77769	—	1.48062	1.48062	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31813	0.26699	2.39897	2.24589	0.00392	0.09595	—	—	0.08827	—	0.08827	—	0.08827	—	413.105	413.105	0.01676	0.00335	—	—	—	—	414.523
Demolition	—	—	—	—	—	—	1.17868	1.17868	—	0.17849	0.17849	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05806	0.04873	0.43781	0.40988	0.00072	0.01751	—	0.01751	0.01611	—	0.01611	—	0.01611	—	68.3943	68.3943	0.00277	0.00055	—	—	—	—	68.6290
Demolition	—	—	—	—	—	—	0.21511	0.21511	—	0.03257	0.03257	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.1.2. Offsite - 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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04775	0.04289	0.02794	0.50659	0.00000	0.00000	0.12400	0.12400	0.00000	0.02906	0.02906	—	125.073	125.073	0.00198	0.00486	0.42381	126.995
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.82307	0.18994	13.4708	5.44122	0.07821	0.22346	3.13199	3.35545	0.14897	0.85748	1.00646	—	11,373.8	11,373.8	0.62196	1.83236	23.1138	11,958.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.00556	0.00493	0.00395	0.05245	0.00000	0.00000	0.01457	0.01457	0.00000	0.00341	0.00341	—	14.0833	14.0833	0.00032	0.00059	0.02208	14.2880
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.09832	0.02245	1.68494	0.65907	0.00943	0.02694	0.37035	0.39729	0.01796	0.10157	0.11952	—	1,371.40	1,371.40	0.07498	0.22089	1.20184	1,440.30
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00101	0.00090	0.00072	0.00957	0.00000	0.00000	0.00266	0.00266	0.00000	0.00062	0.00062	—	2.33165	2.33165	0.00005	0.00010	0.00366	2.36554
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01794	0.00410	0.30750	0.12028	0.00172	0.00492	0.06759	0.07250	0.00328	0.01854	0.02181	—	227.051	227.051	0.01241	0.03657	0.19898	238.459

3.2. Site Preparation (2027)

3.2.1. Onsite - 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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.74034	3.14292	28.7848	29.2967	0.05021	1.19316	—	1.19316	1.09770	—	1.09770	—	5,439.54	5,439.54	0.22065	0.04413	—	5,458.21
Dust From Material Movement	—	—	—	—	—	—	7.66973	7.66973	—	3.94048	3.94048	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.22545	0.18944	1.73497	1.76583	0.00303	0.07192	—	0.06616	—	0.06616	—	327.863	327.863	0.01330	0.00266	—	328.988
Dust From Material Movement	—	—	—	—	—	0.46229	0.46229	—	0.23751	0.23751	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04114	0.03457	0.31663	0.32226	0.00055	0.01312	—	0.01312	0.01207	—	0.01207	54.2814	54.2814	0.00220	0.00044	—	54.4677
Dust From Material Movement	—	—	—	—	—	0.08437	0.08437	—	0.04335	0.04335	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.2.2. Offsite - 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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06367	0.05719	0.03726	0.67545	0.00000	0.00000	0.16533	0.16533	0.00000	0.03875	0.03875	—	166.763	166.763	0.00265	0.00648	0.56509	169.326
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.05825	0.01344	0.95327	0.38505	0.00553	0.01581	0.22164	0.23745	0.01054	0.06068	0.07122	—	804.871	804.871	0.04401	0.12967	1.63566	846.249
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00370	0.00329	0.00264	0.03497	0.00000	0.00000	0.00972	0.00972	0.00000	0.00227	0.00227	0.00227	—	—	9.38886	9.38886	0.00021	0.00039	0.01472	9.52531	—	—	—
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00348	0.00079	0.05962	0.02332	0.00033	0.00095	0.01310	0.01406	0.00064	0.00359	0.00423	—	—	—	48.5240	48.5240	0.00265	0.00782	0.04252	50.9619	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00068	0.00060	0.00048	0.00638	0.00000	0.00000	0.00177	0.00177	0.00000	0.00041	0.00041	—	—	—	1.55443	1.55443	0.00004	0.00006	0.00244	1.57702	—	—	—
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00063	0.00014	0.01088	0.00426	0.00006	0.00017	0.00239	0.00257	0.00012	0.00066	0.00077	—	—	—	8.03370	8.03370	0.00044	0.00129	0.00704	8.43732	—	—	—

3.3. Grading (2027)

3.3.1. Onsite - 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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.50534	2.94546	25.5801	27.2816	0.06093	1.04307	—	1.04307	0.95962	—	0.95962	—	6,598.08	6,598.08	0.26765	0.05353	—	6,620.72
Dust From Material Movement	—	—	—	—	—	—	3.60581	3.60581	—	1.42745	1.42745	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.40335	0.33893	2.94346	3.13926	0.00701	0.12002	0.12002	—	0.12002	0.11042	—	759.231	759.231	0.03080	0.00616	—	761.836
Dust From Material Movement	—	—	—	—	—	—	—	0.41492	0.41492	0.16425	0.16425	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07361	0.06185	0.53718	0.57291	0.00128	0.02190	0.02190	—	0.02190	0.02015	—	125.699	125.699	0.00510	0.00102	—	126.131
Dust From Material Movement	—	—	—	—	—	—	—	0.07572	0.07572	0.02998	0.02998	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.3.2. Offsite - 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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06367	0.05719	0.03726	0.67545	0.00000	0.00000	0.16533	0.16533	0.00000	0.03875	0.03875	—	166.763	166.763	0.00265	0.00648	0.56509	169.326
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	2.01029	0.28013	36.8257	12.4455	0.24311	0.72563	10.1704	10.8961	0.48375	2.78448	3.26823	—	36,125.4	36,125.4	1.72646	5.81984	75.0567	37,977.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.00707	0.00628	0.00503	0.06675	0.00000	0.00000	0.01855	0.01855	0.00000	0.00434	0.00434	—	17.9242	17.9242	17.9242	0.00041	0.00075	0.02810	18.1847
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.23104	0.03209	4.40674	1.43308	0.02797	0.08350	1.14796	1.23145	0.05566	0.31482	0.37049	—	4,157.00	4,157.00	4,157.00	0.19866	0.66968	3.72531	4,365.25
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00129	0.00115	0.00092	0.01218	0.00000	0.00000	0.00338	0.00338	0.00000	0.00079	0.00079	—	2.96755	2.96755	2.96755	0.00007	0.00012	0.00465	3.01068
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.04216	0.00586	0.80423	0.26154	0.00511	0.01524	0.20950	0.22474	0.01016	0.05745	0.06761	—	688.238	688.238	688.238	0.03289	0.11087	0.61677	722.717

3.4. Infrastructure Improvements (2027)

3.4.1. Onsite - 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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.50534	2.94546	25.5801	27.2816	0.06093	1.04307	—	1.04307	0.95962	—	0.95962	—	6,598.08	6,598.08	0.26765	0.05353	—	6,620.72
Dust From Material Movement	—	—	—	—	—	—	3.58940	3.58940	—	1.42496	1.42496	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.50534	2.94546	25.5801	27.2816	0.06093	1.04307	—	1.04307	0.95962	—	0.95962	—	6,598.08	6,598.08	0.26765	0.05353	—	6,620.72

Dust From Material Movement	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.85473	0.71821	6.23734	6.65224	0.01486	0.25434	—	0.87522	0.87522	0.25434	0.23399	—	0.34746	1,614.37
Dust From Material Movement	—	—	—	—	—	—	—	0.87522	0.87522	0.25434	0.23399	—	0.34746	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15599	0.13107	1.13831	1.21403	0.00271	0.04642	—	—	0.04642	0.04270	0.04270	—	0.04270	267.277
Dust From Material Movement	—	—	—	—	—	—	—	0.15973	0.15973	0.15973	—	—	0.06341	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000

3.4.2. Offsite - Unmitigated

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

[illegible]

Worker	0.06367	0.05719	0.03726	0.67545	0.00000	0.00000	0.16533	0.16533	0.00000	0.03875	0.03875	—	166.763	166.763	0.00265	0.00648	0.56509	169.326
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06235	0.05542	0.05022	0.59803	0.00000	0.00000	0.16533	0.16533	0.00000	0.03875	0.03875	—	154.722	154.722	0.00397	0.00692	0.01468	156.899
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01499	0.01330	0.01067	0.14145	0.00000	0.00000	0.03930	0.03930	0.00000	0.00920	0.00920	—	37.9822	37.9822	0.00086	0.00158	0.05954	38.5342
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00274	0.00243	0.00195	0.02582	0.00000	0.00000	0.00717	0.00717	0.00000	0.00168	0.00168	—	6.28838	6.28838	0.00014	0.00026	0.00986	6.37978
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5. Building Construction (2028)

3.5.1. Onsite - 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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.70813	1.43116	11.1662	15.8845	0.03572	0.37975	—	0.37975	0.34937	—	0.34937	—	3,731.27	3,731.27	0.15136	0.03027	—	3,744.08

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.70813	1.43116	11.1662	15.8845	0.03572	0.37975	—	0.37975	0.34937	—	0.34937	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	3,744.08
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91256	0.76459	5.96551	8.48624	0.01908	0.20288	—	0.20288	0.18665	—	0.18665	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	2,000.26
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16654	0.13954	1.08871	1.54874	0.00348	0.03703	—	0.03703	0.03406	—	0.03406	—	0.03406	0.01339	0.01339	0.00268	—	—	—	—	—	—	—	331.166
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5.2. Offsite - 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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.40682	0.36452	0.24023	4.15936	0.00000	0.00000	1.07879	1.07879	0.00000	0.25287	0.25287	—	1,068.84	1,068.84	0.01726	0.00863	3.31176	1,075.15
Vendor	0.08870	0.04132	1.47528	0.65366	0.00943	0.01886	0.35883	0.37769	0.01886	0.09914	0.11800	—	1,276.05	1,276.05	0.05344	0.18705	3.03442	1,336.16

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.39531	0.35014	0.28828	3.66192	0.00000	0.00000	1.07879	0.00000	0.25287	0.25287	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.08645	0.04019	1.55769	0.67274	0.00943	0.01886	0.35883	0.01886	0.09914	0.11800	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20812	0.18552	0.15094	1.90011	0.00000	0.00000	0.56190	0.00000	0.13148	0.13148	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.04679	0.02207	0.81431	0.35401	0.00504	0.01008	0.18766	0.01008	0.05195	0.06203	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03798	0.03386	0.02755	0.34677	0.00000	0.00000	0.10255	0.00000	0.02400	0.02400	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00854	0.00403	0.14861	0.06461	0.00092	0.00184	0.03425	0.00184	0.00948	0.01132	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.6. Paving (2028)

3.6.1. Onsite - 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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.17372	0.98625	8.86019	13.5678	0.01920	0.37915	—	0.37915	0.34882	—	0.34882	—	2,079.67	2,079.67	0.08436	0.01687	—	2,086.80

Paving	0.46255	0.46255	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14149	0.11889	1.06808	1.63557	0.00231	0.04571	—	0.04571	0.04205	—	0.04205	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	251.560
Paving	0.05576	0.05576	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02582	0.02170	0.19492	0.29849	0.00042	0.00834	—	0.00834	0.00767	—	0.00767	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	41.6486
Paving	0.01018	0.01018	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.6.2. Offsite - 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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05301	0.04695	0.03866	0.49106	0.00000	0.00000	0.14466	0.14466	0.00000	0.03391	0.03391	—	132.986	132.986	0.00309	0.00606	0.01149	134.880
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00630	0.00561	0.00457	0.05749	0.00000	0.00000	0.01700	0.00398	0.00398	0.00398	—	16.1398	0.00033	0.00068	0.02311	16.3748									
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000									
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000									
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00115	0.00102	0.00083	0.01049	0.00000	0.00000	0.00310	0.00073	0.00073	0.00073	—	2.67213	0.00005	0.00011	0.00383	2.71103									
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000									
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000									

3.7. Architectural Coating (2028)

3.7.1. Onsite - 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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12985	0.10731	0.80814	1.11833	0.00173	0.01536	—	0.01536	0.01413	—	0.01413	—	133.517	133.517	0.00542	0.00108	—	133.975
Architectural Coatings	50.5371	50.5371	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01550	0.01281	0.09647	0.13350	0.00021	0.00183	0.00169	—	0.00169	—	15.9384	15.9384	0.00065	0.00013	—	15.9931
Architectural Coatings	6.03281	6.03281	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00283	0.00234	0.01761	0.02436	0.00004	0.00033	0.00031	—	0.00031	—	2.63879	2.63879	0.00011	0.00002	—	2.64784
Architectural Coatings	1.10099	1.10099	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.7.2. Offsite - 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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07906	0.07003	0.05766	0.73238	0.00000	0.00000	0.21576	0.21576	0.00000	0.05057	0.05057	—	198.341	198.341	0.00460	0.00903	0.01714	201.165
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.00930	0.00829	0.00675	0.08491	0.00000	0.00000	0.00000	0.02511	0.02511	0.00000	0.00588	0.00588	—	23.8371	23.8371	0.00048	0.00101	0.03413	24.1841
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00170	0.00151	0.00123	0.01550	0.00000	0.00000	0.00000	0.00458	0.00458	0.00000	0.00107	0.00107	—	3.94650	3.94650	0.00008	0.00017	0.00565	4.00396
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.8. Architectural Coating (2029)

3.8.1. Onsite - 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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12385	0.10236	0.79416	1.11216	0.00173	0.01284	—	0.01284	0.01181	—	0.01181	—	133.510	133.510	0.00542	0.00108	—	133.968
Architectural Coatings	50.5371	50.5371	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.00751	0.00621	0.04818	0.06747	0.00010	0.00078	—	0.00072	—	0.00072	—	8.09941	8.09941	0.00033	0.00007	—	8.12721
Architectural Coatings	3.06585	3.06585	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00137	0.00113	0.00879	0.01231	0.00002	0.00014	—	0.00013	—	0.00014	0.00013	1.34095	1.34095	0.00005	0.00001	—	1.34555
Architectural Coatings	0.55952	0.55952	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.8.2. Offsite - 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
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06945	0.06773	0.05708	0.69222	0.00000	0.00000	0.21576	0.21576	0.00000	0.05057	0.05057	—	194.967	194.967	0.00460	0.00846	0.01531	197.618
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00414	0.00400	0.00298	0.04082	0.00000	0.00000	0.01276	0.00000	0.00299	0.00299	0.00299	—	11.9082	11.9082	0.00024	0.00051	0.01548	12.0827					
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000					
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000					
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00076	0.00073	0.00054	0.00745	0.00000	0.00000	0.00233	0.00000	0.00054	0.00054	0.00054	—	1.97154	1.97154	0.00004	0.00008	0.00256	2.00043					
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000					
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000					

4. Operations Emissions Details

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Paving	Paving	10/2/2028	11/30/2028	5.00000	44.0000	—
Architectural Coating	Architectural Coating	11/1/2028	1/31/2029	5.00000	66.0000	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.000000	8.00000	33.0000	0.73000
Demolition	Excavators	Diesel	Average	3.00000	8.00000	36.0000	0.38000
Demolition	Rubber Tired Dozers	Diesel	Average	2.00000	8.00000	367.000	0.40000
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00000	8.00000	367.000	0.40000
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	4.00000	8.00000	84.0000	0.37000
Site Preparation	Excavators	Diesel	Average	1.000000	8.00000	36.0000	0.38000
Grading	Excavators	Diesel	Average	2.00000	8.00000	36.0000	0.38000
Grading	Graders	Diesel	Average	1.000000	8.00000	148.000	0.41000
Grading	Rubber Tired Dozers	Diesel	Average	1.000000	8.00000	367.000	0.40000
Grading	Tractors/Loaders/Back hoes	Diesel	Average	2.00000	8.00000	84.0000	0.37000
Grading	Scrapers	Diesel	Average	2.00000	8.00000	423.000	0.48000
Infrastructure Improvements	Excavators	Diesel	Average	2.00000	8.00000	36.0000	0.38000
Infrastructure Improvements	Graders	Diesel	Average	1.000000	8.00000	148.000	0.41000
Infrastructure Improvements	Rubber Tired Dozers	Diesel	Average	1.000000	8.00000	367.000	0.40000
Infrastructure Improvements	Scrapers	Diesel	Average	2.00000	8.00000	423.000	0.48000
Infrastructure Improvements	Tractors/Loaders/Back hoes	Diesel	Average	2.00000	8.00000	84.0000	0.37000

Building Construction	Cranes	Diesel	Average	1,000,000	7,00000	367,000	0.29000
Building Construction	Forklifts	Diesel	Average	3,00000	8,00000	82,0000	0.20000
Building Construction	Generator Sets	Diesel	Average	1,000000	8,00000	14,0000	0.74000
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	3,00000	7,00000	84,0000	0.37000
Building Construction	Welders	Diesel	Average	1,000000	8,00000	46,0000	0.45000
Building Construction	Off-Highway Trucks	Diesel	Average	1,000000	8,00000	376,000	0.38000
Paving	Pavers	Diesel	Average	2,00000	8,00000	81,0000	0.42000
Paving	Paving Equipment	Diesel	Average	2,00000	8,00000	89,0000	0.36000
Paving	Rollers	Diesel	Average	2,00000	8,00000	36,0000	0.38000
Paving	Graders	Diesel	Average	1,000000	8,00000	148,000	0.41000
Architectural Coating	Air Compressors	Diesel	Average	1,000000	6,00000	37,0000	0.48000

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	Worker	15.0000	11.7000	LDA,LDT1,LDT2
Demolition	Vendor	—	8.40000	HHDT,MHDT
Demolition	Hauling	168.932	20.0000	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	Worker	20.0000	11.7000	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40000	HHDT,MHDT
Site Preparation	Hauling	11.9545	20.0000	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	Worker	20.0000	11.7000	LDA,LDT1,LDT2
Grading	Vendor	—	8.40000	HHDT,MHDT
Grading	Hauling	55.9762	196.000	HHDT
Grading	Onsite truck	—	—	HHDT

Infrastructure Improvements	Worker	20.0000	11.7000	LDA,LDT1,LDT2
Infrastructure Improvements	Vendor	—	8.40000	HHDT,MHDT
Infrastructure Improvements	Hauling	0.00000	20.0000	HHDT
Infrastructure Improvements	Onsite truck	—	—	HHDT
Building Construction	Worker	130.501	11.7000	LDA,LDT1,LDT2
Building Construction	Vendor	50.9265	8.40000	HHDT,MHDT
Building Construction	Hauling	0.00000	20.0000	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	Worker	17.5000	11.7000	LDA,LDT1,LDT2
Paving	Vendor	—	8.40000	HHDT,MHDT
Paving	Hauling	0.00000	20.0000	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	Worker	26.1002	11.7000	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40000	HHDT,MHDT
Architectural Coating	Hauling	0.00000	20.0000	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	0.00000	0.00000	466,076	155,359	20,302.4

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00000	0.00000	0.00000	646,343	0.00000
Site Preparation	—	2,100.00	33.0000	0.00000	0.00000
Grading	18,806.0	—	126.000	0.00000	0.00000
Infrastructure Improvements	—	—	267.000	0.00000	0.00000
Paving	0.00000	0.00000	0.00000	0.00000	7.76798

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Phase Name	Land Use	Area Paved (acres)	% Asphalt
Paving	Unrefrigerated Warehouse-No Rail	0.00000	0%
Paving	Parking Lot	7.76798	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00000	203.983	0.03300	0.00400
2028	0.00000	203.983	0.03300	0.00400
2029	0.00000	203.983	0.03300	0.00400

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
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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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	7.75000	annual days of extreme heat
Extreme Precipitation	7.20000	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	8.96000	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi. Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

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

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	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	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
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	6.38457			
AQ-PM	26.2726			
AQ-DPM	77.0877			
Drinking Water	4.20882			
Lead Risk Housing	94.0391			
Pesticides	0.00000			
Toxic Releases	63.9035			
Traffic	33.5750			
Effect Indicators	—			
CleanUp Sites	96.9018			
Groundwater	92.6615			

Haz Waste Facilities/Generators	91.0126
Impaired Water Bodies	12.4528
Solid Waste	63.6655
Sensitive Population	—
Asthma	99.6760
Cardio-vascular	90.4661
Low Birth Weights	78.9967
Socioeconomic Factor Indicators	—
Education	89.0534
Housing	93.3333
Linguistic	55.1495
Poverty	85.4397
Unemployment	65.6299

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	4.555370204
Employed	6.967791608
Median HI	1.668163737
Education	—
Bachelor's or higher	10.61208777
High school enrollment	14.96214552
Preschool enrollment	49.04401386
Transportation	—
Auto Access	2.617733864
Active commuting	94.71320416

Social	—
2-parent households	21.14718337
Voting	25.7153856
Neighborhood	—
Alcohol availability	13.60195047
Park access	81.35506224
Retail density	85.32015912
Supermarket access	27.01142051
Tree canopy	29.65481843
Housing	—
Homeownership	17.86218401
Housing habitability	7.493904786
Low-inc homeowner severe housing cost burden	2.34826126
Low-inc renter severe housing cost burden	8.135506224
Uncrowded housing	22.16091364
Health Outcomes	—
Insured adults	8.122674195
Arthritis	15.6
Asthma ER Admissions	0.9
High Blood Pressure	13.8
Cancer (excluding skin)	68.9
Asthma	3.1
Coronary Heart Disease	12.2
Chronic Obstructive Pulmonary Disease	6.0
Diagnosed Diabetes	3.7
Life Expectancy at Birth	23.4
Cognitively Disabled	13.1
Physically Disabled	5.0

Heart Attack ER Admissions	13.7
Mental Health Not Good	6.9
Chronic Kidney Disease	3.6
Obesity	3.2
Pedestrian Injuries	91.9
Physical Health Not Good	6.4
Stroke	2.3
Health Risk Behaviors	—
Binge Drinking	87.0
Current Smoker	6.5
No Leisure Time for Physical Activity	5.8
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	40.4
Children	24.2
Elderly	60.7
English Speaking	18.3
Foreign-born	55.7
Outdoor Workers	5.4
Climate Change Adaptive Capacity	—
Impervious Surface Cover	13.3
Traffic Density	27.3
Traffic Access	87.4
Other Indices	—
Hardship	93.4
Other Decision Support	—
2016 Voting	3.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	90.0000
Healthy Places Index Score for Project Location (b)	6.00000
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 Healthy 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

8.1. Justifications

Screen	Justification
Construction: Construction Phases	Anticipated schedule
Construction: Trips and VMT	Anticipated distance for hazardous material disposal

8.4. Construction

8.4.1. Construction Phases

Phase Type	Phase Name	Model Parameter	Default Value	New Value
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Demolition	Demolition	End Date	4/29/2027	6/1/2027
Demolition	Demolition	Work Days per Phase	20.0000	44.0000
Site Preparation	Site Preparation	Start Date	4/30/2027	6/2/2027
Site Preparation	Site Preparation	End Date	5/14/2027	7/1/2027
Site Preparation	Site Preparation	Work Days per Phase	10.00000	22.0000
Grading	Grading	Start Date	5/15/2027	7/2/2027
Grading	Grading	End Date	6/26/2027	8/30/2027
Grading	Grading	Work Days per Phase	30.0000	42.0000
Building Construction	Building Construction	Start Date	6/27/2027	1/3/2028
Building Construction	Building Construction	End Date	8/20/2028	9/29/2028
Building Construction	Building Construction	Work Days per Phase	300.000	195.000
Paving	Paving	Start Date	8/21/2028	10/2/2028
Paving	Paving	End Date	9/18/2028	11/30/2028
Paving	Paving	Work Days per Phase	20.0000	44.0000
Architectural Coating	Architectural Coating	Start Date	9/19/2028	11/1/2028
Architectural Coating	Architectural Coating	End Date	10/17/2028	1/31/2029
Architectural Coating	Architectural Coating	Work Days per Phase	20.0000	66.0000

8.4.6. Trips and VMT

Phase Name	Trip Type	Model Parameter	Default Value	New Value
Grading	Hauling	Miles per Trip	20.0000	196.000

Oakland Foundry_Ops Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Oakland Foundry_Ops
Operational Year	2029
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.90
Precipitation (days)	39.0
Location	7825 San Leandro St, Oakland, CA 94621, USA
County	Alameda
City	Oakland
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1435
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
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
Unrefrigerated Warehouse-No Rail	311	1000sqft	7.13	310,717	78,408	—	—	—
Parking Lot	338	1000sqft	7.77	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	14.2	13.6	5.30	45.5	0.09	0.08	8.26	8.34	0.07	2.10	2.17	295	11,637	11,933	30.6	0.87	23.4	12,979
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	11.7	11.3	5.80	30.6	0.09	0.06	8.26	8.32	0.06	2.10	2.15	295	11,104	11,399	30.6	0.90	0.61	12,433
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	12.8	12.3	5.60	36.1	0.09	0.07	8.05	8.13	0.06	2.05	2.11	295	11,170	11,465	30.6	0.89	10.1	12,505
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.34	2.25	1.02	6.59	0.02	0.01	1.47	1.48	0.01	0.37	0.39	48.9	1,849	1,898	5.07	0.15	1.68	2,070

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.23	3.83	5.18	32.0	0.09	0.06	8.26	8.32	0.06	2.10	2.15	—	9,408	9,408	0.41	0.49	23.4	9,587

Area	10.00	9.81	0.11	13.5	< 0.005	0.02	—	0.02	0.02	—	0.02	—	55.6	55.6	< 0.005	< 0.005	—	55.8
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,911	1,911	0.31	0.04	—	1,930
Water	—	—	—	—	—	—	—	—	—	—	—	138	262	400	14.2	0.34	—	856
Waste	—	—	—	—	—	—	—	—	—	—	—	157	0.00	157	15.7	0.00	—	551
Total	14.2	13.6	5.30	45.5	0.09	0.08	8.26	8.34	0.07	2.10	2.17	295	11,637	11,933	30.6	0.87	23.4	12,979
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.10	3.68	5.80	30.6	0.09	0.06	8.26	8.32	0.06	2.10	2.15	—	8,930	8,930	0.45	0.52	0.61	9,096
Area	7.59	7.59	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,911	1,911	0.31	0.04	—	1,930
Water	—	—	—	—	—	—	—	—	—	—	—	138	262	400	14.2	0.34	—	856
Waste	—	—	—	—	—	—	—	—	—	—	—	157	0.00	157	15.7	0.00	—	551
Total	11.7	11.3	5.80	30.6	0.09	0.06	8.26	8.32	0.06	2.10	2.15	295	11,104	11,399	30.6	0.90	0.61	12,433
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.05	3.64	5.54	29.5	0.09	0.06	8.05	8.11	0.06	2.05	2.10	—	8,968	8,968	0.43	0.51	10.1	9,140
Area	8.78	8.68	0.06	6.66	< 0.005	0.01	—	0.01	0.01	—	0.01	—	27.4	27.4	< 0.005	< 0.005	—	27.5
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	1,911	1,911	0.31	0.04	—	1,930
Water	—	—	—	—	—	—	—	—	—	—	—	138	262	400	14.2	0.34	—	856
Waste	—	—	—	—	—	—	—	—	—	—	—	157	0.00	157	15.7	0.00	—	551
Total	12.8	12.3	5.60	36.1	0.09	0.07	8.05	8.13	0.06	2.05	2.11	295	11,170	11,465	30.6	0.89	10.1	12,505
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.74	0.66	1.01	5.38	0.02	0.01	1.47	1.48	0.01	0.37	0.38	—	1,485	1,485	0.07	0.08	1.68	1,513
Area	1.60	1.58	0.01	1.22	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.54	4.54	< 0.005	< 0.005	—	4.55
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	316	316	0.05	0.01	—	320
Water	—	—	—	—	—	—	—	—	—	—	—	22.8	43.5	66.3	2.34	0.06	—	142
Waste	—	—	—	—	—	—	—	—	—	—	—	26.1	0.00	26.1	2.60	0.00	—	91.2
Total	2.34	2.25	1.02	6.59	0.02	0.01	1.47	1.48	0.01	0.37	0.39	48.9	1,849	1,898	5.07	0.15	1.68	2,070

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.24	0.14	2.26	1.67	0.01	0.01	0.22	0.23	0.01	0.06	0.07	—	849	849	0.09	0.13	1.31	891
Parking Lot	3.99	3.68	2.93	30.4	0.08	0.05	8.04	8.09	0.05	2.04	2.09	—	8,559	8,559	0.32	0.36	22.1	8,696
Total	4.23	3.83	5.18	32.0	0.09	0.06	8.26	8.32	0.06	2.10	2.15	—	9,408	9,408	0.41	0.49	23.4	9,587
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.23	0.13	2.39	1.78	0.01	0.01	0.22	0.23	0.01	0.06	0.07	—	851	851	0.09	0.13	0.03	892
Parking Lot	3.87	3.55	3.41	28.8	0.08	0.05	8.04	8.09	0.05	2.04	2.09	—	8,078	8,078	0.36	0.39	0.57	8,204
Total	4.10	3.68	5.80	30.6	0.09	0.06	8.26	8.32	0.06	2.10	2.15	—	8,930	8,930	0.45	0.52	0.61	9,096
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No Rail	0.04	0.02	0.42	0.31	< 0.005	< 0.005	0.04	0.04	0.04	0.01	0.01	—	141	141	0.01	0.02	0.09	147
Parking Lot	0.70	0.64	0.59	5.06	0.01	0.01	1.43	1.44	0.36	0.37	—	1,344	1,344	0.06	0.06	1.58	1,366	
Total	0.74	0.66	1.01	5.38	0.02	0.01	1.47	1.48	0.37	0.38	—	1,485	1,485	0.07	0.08	1.68	1,513	

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,746	1,746	0.28	0.03	—	1,763
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	166	166	0.03	< 0.005	—	167
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,911	1,911	0.31	0.04	—	1,930
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,746	1,746	0.28	0.03	—	1,763
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	166	166	0.03	< 0.005	—	167

[illegible]

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

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	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	6.68	6.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.91	0.91	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscaping Equipment	2.41	2.22	0.11	13.5	<0.005	0.02	—	0.02	0.02	—	0.02	—	55.6	55.6	<0.005	<0.005	—	55.8
Total	10.00	9.81	0.11	13.5	<0.005	0.02	—	0.02	0.02	—	0.02	—	55.6	55.6	<0.005	<0.005	—	55.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consum Products	6.68	6.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.91	0.91	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	7.59	7.59	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.22	1.22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.17	0.17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscaping Equipment	0.22	0.20	0.01	1.22	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.55
Total	1.60	1.58	0.01	1.22	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.55

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	138	262	400	14.2	0.34	—	856

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	138	262	400	14.2	0.34	—	856
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	138	262	400	14.2	0.34	—	856
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	138	262	400	14.2	0.34	—	856
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	22.8	43.5	66.3	2.34	0.06	—	142
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	22.8	43.5	66.3	2.34	0.06	—	142

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrig erated Wareho Rail	—	—	—	—	—	—	—	—	—	—	—	—	157	0.00	157	15.7	0.00	—	551
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	157	0.00	157	15.7	0.00	—	551
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrig erated Wareho use-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	157	0.00	157	15.7	0.00	—	551
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	157	0.00	157	15.7	0.00	—	551
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrig erated Wareho use-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	26.1	0.00	26.1	2.60	0.00	—	91.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	26.1	0.00	26.1	2.60	0.00	—	91.2

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)																			
Equipm ent 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)

Equipm ent 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)

Equipm ent 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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

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)
Unrefrigerated Warehouse-No Rail	3,123,866	204	0.0330	0.0040	0.00
Parking Lot	296,415	204	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)
Unrefrigerated Warehouse-No Rail	71,853,306	890,817
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	292	—
Parking Lot	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
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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
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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
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5.16.2. Process Boilers

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

Equipment Type	Fuel Type
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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
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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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	7.75	annual days of extreme heat
Extreme Precipitation	7.20	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	8.96	annual hectares burned

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

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	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	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
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	6.38
AQ-PM	26.3
AQ-DPM	77.1
Drinking Water	4.21
Lead Risk Housing	94.0
Pesticides	0.00
Toxic Releases	63.9
Traffic	33.6
Effect Indicators	—
CleanUp Sites	96.9
Groundwater	92.7
Haz Waste Facilities/Generators	91.0
Impaired Water Bodies	12.5
Solid Waste	63.7
Sensitive Population	—
Asthma	99.7
Cardio-vascular	90.5
Low Birth Weights	79.0

Socioeconomic Factor Indicators	—
Education	89.1
Housing	93.3
Linguistic	55.1
Poverty	85.4
Unemployment	65.6

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	4.555370204
Employed	6.967791608
Median HI	1.668163737
Education	—
Bachelor's or higher	10.61208777
High school enrollment	14.96214552
Preschool enrollment	49.04401386
Transportation	—
Auto Access	2.617733864
Active commuting	94.71320416
Social	—
2-parent households	21.14718337
Voting	25.7153856
Neighborhood	—
Alcohol availability	13.60195047
Park access	81.35506224
Retail density	85.32015912

Supermarket access	27.01142051
Tree canopy	29.65481843
Housing	—
Homeownership	17.86218401
Housing habitability	7.493904786
Low-inc homeowner severe housing cost burden	2.34826126
Low-inc renter severe housing cost burden	8.135506224
Uncrowded housing	22.16091364
Health Outcomes	—
Insured adults	8.122674195
Arthritis	15.6
Asthma ER Admissions	0.9
High Blood Pressure	13.8
Cancer (excluding skin)	68.9
Asthma	3.1
Coronary Heart Disease	12.2
Chronic Obstructive Pulmonary Disease	6.0
Diagnosed Diabetes	3.7
Life Expectancy at Birth	23.4
Cognitively Disabled	13.1
Physically Disabled	5.0
Heart Attack ER Admissions	13.7
Mental Health Not Good	6.9
Chronic Kidney Disease	3.6
Obesity	3.2
Pedestrian Injuries	91.9
Physical Health Not Good	6.4
Stroke	2.3

Health Risk Behaviors	—
Binge Drinking	87.0
Current Smoker	6.5
No Leisure Time for Physical Activity	5.8
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	40.4
Children	24.2
Elderly	60.7
English Speaking	18.3
Foreign-born	55.7
Outdoor Workers	5.4
Climate Change Adaptive Capacity	—
Impervious Surface Cover	13.3
Traffic Density	27.3
Traffic Access	87.4
Other Indices	—
Hardship	93.4
Other Decision Support	—
2016 Voting	3.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	90.0
Healthy Places Index Score for Project Location (b)	6.00
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
Construction: Construction Phases	Anticipated schedule
Construction: Off-Road Equipment	Anticipated equipment
Construction: Trips and VMT	Anticipated distance for hazardous material disposal
Operations: Vehicle Data	Anticipated trip gen Warehouse = truck trips Pavement = Passenger
Operations: Fleet Mix	Anticipated fleet mix Warehouse = truck trips Pavement = Passenger
Operations: Energy Use	No Natural Gas

Operational Emissions

Equipment	Fuel	Quantity	HP	LF	Total Hrs/Year	Emissions Factor (lbs/hp/hr)	Emissions Factor (lbs/hp/hr)	Emissions Factor (lbs/hp/hr)	Emissions Factor (lbs/hp/hr)	Emissions Factor (lbs/hp/hr)	Emissions Factor (lbs/hp/hr)	Emissions Factor (lbs/hp/hr)
						PM _{2.5}	PM ₁₀	NO _x	CO	SO _x	CO ₂	TOC
Fire Pump	Diesel	1	364	0.74	50	7.21E-04	7.21E-04	1.10E-02	6.96E-03	5.91E-04	1.08E+00	1.50E-02
Annual Emissions (lbs/yr)						9.71E+00	9.71E+00	1.48E+02	9.37E+01	7.96E+00	1.45E+04	2.02E+02
FOR AQ Daily Emissions (lbs/day)						0.10	0.10	1.48	0.94	0.08	145.45	2.02
Emissions Rate (lbs/s)						5.39E-05						
Emissions Rate (g/s)						2.45E-02						
Annual MT										0.12		