

**Air Quality and Greenhouse Gas
Emissions Assessment
for the
Larch Avenue Industrial Project**

Rialto, California

Prepared For:

Miros Enterprises, LLC
420 South E Street
San Bernardino, CA 92401

Prepared By:

 **ECORP Consulting, Inc.**
ENVIRONMENTAL CONSULTANTS
55 Hanover Lane, Suite A
Chico, CA 95973

June 2025

CONTENTS

1.0	INTRODUCTION	1-1
1.1	Location and Setting	1-1
1.2	Project Description	1-1
2.0	AIR QUALITY	2-1
2.1	Air Quality Setting.....	2-1
2.1.1	South Coast Air Basin.....	2-1
2.1.2	Criteria Air Pollutants.....	2-2
2.1.3	Toxic Air Contaminants.....	2-5
2.1.4	Ambient Air Quality.....	2-5
2.1.5	Sensitive Receptors.....	2-7
2.2	Regulatory Framework.....	2-7
2.2.1	Federal	2-7
2.2.2	State.....	2-8
2.2.3	Local.....	2-12
2.3	Air Quality Emissions Impact Assessment.....	2-15
2.3.1	Thresholds of Significance	2-15
2.3.2	Methodology	2-17
2.3.3	Impact Analysis.....	2-17
3.0	GREENHOUSE GAS EMISSIONS	3-1
3.1	Greenhouse Gas Setting.....	3-1
3.1.1	Sources of Greenhouse Gas Emissions	3-2
3.2	Regulatory Framework.....	3-3
3.2.1	State.....	3-3
3.2.2	Local.....	3-7
3.3	Greenhouse Gas Emissions Impact Assessment	3-10
3.3.1	Thresholds of Significance	3-10
3.3.2	Methodology	3-12
3.3.3	Impact Analysis.....	3-13
4.0	REFERENCES.....	4-1

LIST OF FIGURES

Figure 1-1. Project Location	1-2
------------------------------------	-----

LIST OF TABLES

Table 2-1. Criteria Air Pollutants - Summary of Common Sources and Effects..... 2-3

Table 2-2. Summary of Ambient Air Quality Data..... 2-6

Table 2-3. Attainment Status of Criteria Pollutants in the San Bernardino County Portion of the SoCAB.. 2-6

Table 2-4. SCAQMD Regional Significance Thresholds – Pounds per Day2-16

Table 2-5. Local Significance Thresholds at 100 Meters of a Sensitive Receptor2-17

Table 2-6. Construction-Related Emissions (Regional Significance Analysis)2-18

Table 2-7. Maximum Construction-Related Emissions (Localized Significance Analysis).....2-19

Table 2-8. Operational-Related Emissions (Regional Significance Analysis)2-20

Table 2-9. Operational-Related Emissions Attributable to Project Buildout (Localized Significance Analysis).....2-22

Table 3-1. Summary of Greenhouse Gases..... 3-2

Table 3-2. Construction-Related Greenhouse Gas Emissions.....3-13

Table 3-3. Operational-Related Greenhouse Gas Emissions.....3-13

LIST OF APPENDICES

Appendix A – CalEEMod Output File for Air Quality Emissions and Greenhouse Gas Emissions

LIST OF ACRONYMS AND ABBREVIATIONS

Term	Definition
°F	Degrees Fahrenheit
µg/m ³	Micrograms per cubic meter; ppm = parts per million
1992 CO Plan	1992 Federal Attainment Plan for Carbon Monoxide
2022 Update	CARB’s Final 2022 Climate Change Scoping Plan
AB	Assembly Bill
APN	Assessor’s Parcel Number
AQMP	Air Quality Management Plan
ATCM	airborne toxics control measure
BRT	Bus Rapid Transit
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model

Term	Definition
CALGreen Code	California Green Building Code
CAP	Climate Action Plan
CAAP	Climate Action and Adaptation Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCAA	California Clean Air Act
CEQA	California Environmental Quality Act
CH ₄	Methane
City	Rialto
CO	Carbon Monoxide
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
County	San Bernardino County
DPM	Diesel particulate matter
EO	Executive Order
GHG	Greenhouse gas
GSP	Gross state product
HRA	Health risk assessment
HVAC	Heating, Ventilation, and Air Conditioning
IPCC	Intergovernmental Panel on Climate Change
LSTs	Localized significance threshold
MATES	Multiple Air Toxics Exposure Study
N ₂ O	Nitrous oxide
NAAQS	National Ambient Air Quality Standards
NMA	Neighborhood Mobility Area
NO ₂	Nitrogen dioxide
NO _x	Nitric oxides
O ₃	Ozone
OPR	Office of Planning and Research
PDA	Priority Development Area
PM	Particulate matter
PM ₁₀	Coarse particulate matter

Term	Definition
PM _{2.5}	Fine particulate matter
ppb	Parts per billion
ppm	Parts per million
Project	Larch Avenue Industrial Project
ROGs	Reactive organic gases
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
sf	Square foot/feet
SIP	State Implementation Plan
SO ₂	Sulfur dioxide
SO _x	Sulfur oxides
SRA	Source receptor area
SoCAB	South Coast Air Basin
TACs	Toxic air contaminants
TPA	Transit Priority Area
USEPA	U.S. Environmental Protection Agency
VOC	Volatile organic compounds
WAIRE	Warehouse Actions and Investments to Reduce Emissions
WPCO	Warehouse Point Compliance Obligation
ZEVs	Zero-emission vehicles

1.0 INTRODUCTION

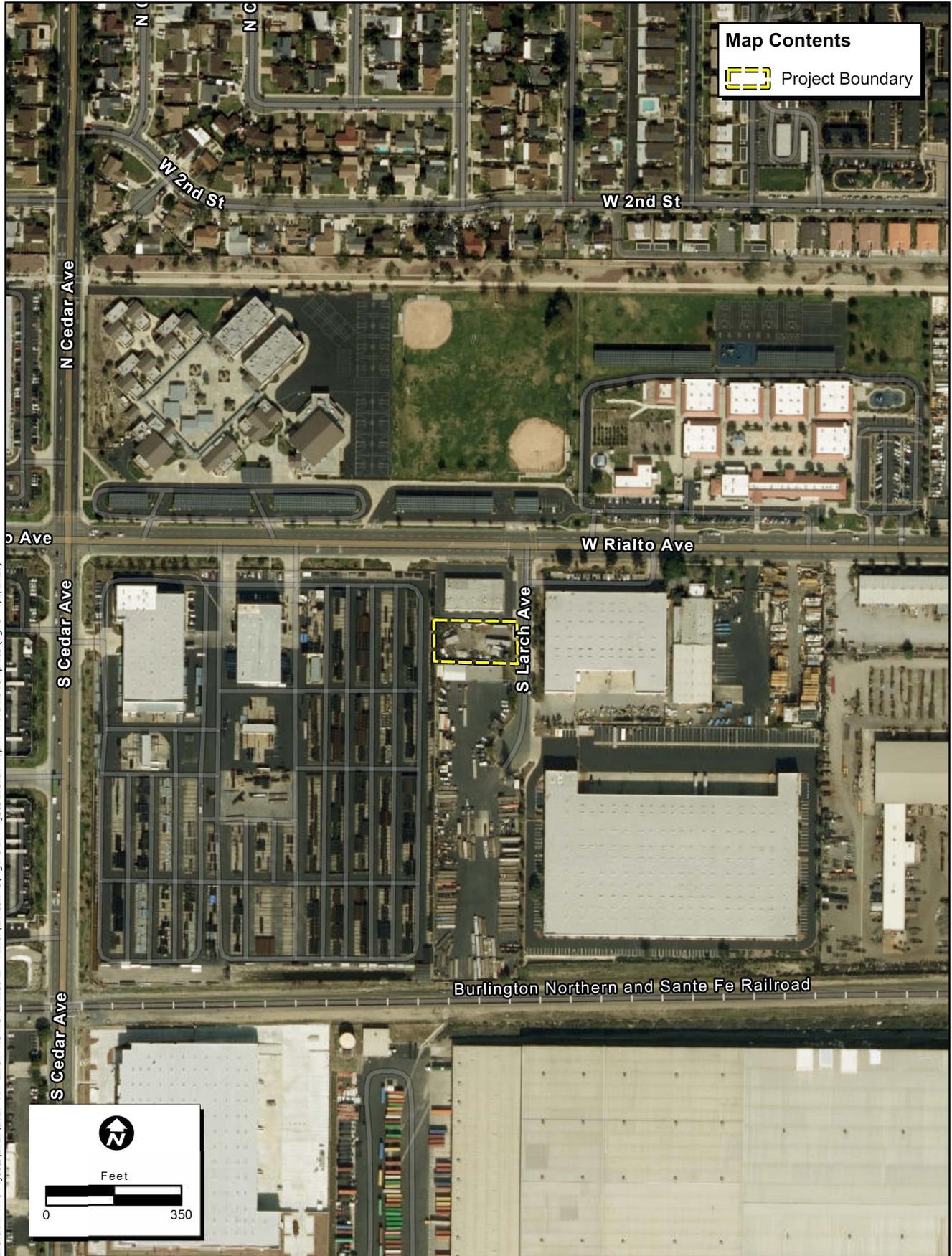
This report documents the results of an Air Quality and Greenhouse Gas (GHG) Emissions Assessment completed for the Larch Avenue Industrial Project (Project), which would include construction and operation of a warehouse building on a 20,000 square-foot lot. The building will be comprised of 6,522 square feet of warehouse facilities and 500 square feet of office space, with a parking lot and heavy-duty truck loading docks inside of the main warehouse in the City of Rialto (City) in San Bernardino County (County). This assessment was prepared using methodologies and assumptions recommended in the rules and regulations of the South Coast Air Quality Management District (SCAQMD) and City of Rialto, where applicable. Regional and local existing conditions are presented, along with pertinent emissions standards and regulations. The purpose of this assessment is to estimate Project-generated criteria air pollutants and GHG emissions attributable to the Project and to determine the level of impact the Project would have on the environment.

1.1 Location and Setting

The Proposed Project is located on an approximately 0.46-acre (20,000 square feet [sf]) vacant parcel in the City of Rialto in San Bernardino County, California (Figure 1, Project Location). The Project is located on the western side of S. Larch Avenue, approximately 200 feet south of the W. Rialto Avenue and S. Larch Ave intersection. The Proposed Project is surrounded by industrial uses (i.e., building supply stores and warehouses to the north, east, south, and west). Rialto Middle School and Charlotte N. Werner Elementary School are both located north of the Project Site, across W. Rialto Avenue. The Project Area is composed of one parcel (Assessor's Parcel Number [APN] 0128-151-17-0000) classified as Light Industrial per the City of Rialto's General Plan, Exhibit 2.2 (City of Rialto 2010).

1.2 Project Description

The Project Applicant proposes to construct a 20,000 square-foot lot. The building will be comprised of 6,522 square feet of warehouse facilities and 500 square feet of office space, with a parking lot and heavy-duty truck loading docks inside of the main warehouse. Construction activities would involve site preparation, grading to achieve the finished design elevations, building construction, paving, and painting. Operations of the warehouse would include heavy-duty truck loading and unloading, as well as office workers commuting daily.



Location: W:\Projects\2025-057 Larch Avenue Industrial - Rialto\Emissions\Figure 1. Project Location.aprx - Portrait Template (sgme - 6/5/2025)

Map Date: 6/5/2025
Sources: Esri 2024

Figure 1-1. Project Location

2025-057 Larch Avenue Industrial Project

2.0 AIR QUALITY

2.1 Air Quality Setting

Air quality in a region is determined by its topography, meteorology, and existing air pollutant sources. These factors are discussed below, along with the current regulatory structure that applies to the South Coast Air Basin (SoCAB), which encompasses the Project Site, pursuant to the regulatory authority of the SCAQMD.

Ambient air quality is commonly characterized by climate conditions, the meteorological influences on air quality, and the quantity and type of pollutants released. The air basin is subject to a combination of topographical and climatic factors that reduce the potential for high levels of regional and local air pollutants. The following section describes the pertinent characteristics of the air basin and provides an overview of the physical conditions affecting pollutant dispersion in the Project Area.

2.1.1 South Coast Air Basin

The California Air Resources Board (CARB) divides the State into air basins that share similar meteorological and topographical features. The Project Site lies in the SoCAB, which includes the non-desert portions of Los Angeles, Riverside, and San Bernardino counties and all of Orange County. The air basin is on a coastal plain with connecting broad valleys and low hills and is bounded by the Pacific Ocean on the southwest, with high mountains forming the remainder of the perimeter (SCAQMD 1993).

2.1.1.1 Temperature and Precipitation

The air basin is part of a semi-permanent high-pressure zone in the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. This usually mild weather pattern is interrupted infrequently by periods of extremely hot weather, winter storms, and Santa Ana winds. The annual average temperature varies little throughout the 6,645-square-mile SoCAB, ranging from the low 60s to the high 80s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas (SCAQMD 1993).

In contrast to a very steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all annual rains fall between November and April. Summer rainfall is normally restricted to widely scattered thundershowers near the coast, with slightly heavier shower activity in the east and over the mountains.

2.1.1.2 Humidity

Although the SoCAB has a semiarid climate, the air near the earth's surface is typically moist because of the presence of a shallow marine layer. Except for infrequent periods when dry, continental air is brought into the SoCAB by offshore winds, the "ocean effect" is dominant. Periods of heavy fog, especially along the coast, are frequent, and low clouds, often referred to as high fog, are a characteristic climatic feature. Annual average humidity is 70 percent at the coast and 57 percent in the eastern portions of the SoCAB (SCAQMD 1993).

2.1.1.3 Wind

Wind patterns across the south coastal region are characterized by westerly or southwesterly onshore winds during the day and by easterly or northeasterly breezes at night. Wind speed is higher during the dry summer months than during the rainy winter.

Between periods of wind, air stagnation may occur in both the morning and evening hours. Air stagnation is one of the critical determinants of air quality conditions on any given day. During the winter and fall, surface high-pressure systems over the SoCAB, combined with other meteorological conditions, can result in very strong, downslope Santa Ana winds. These winds normally continue a few days before predominant meteorological conditions are reestablished.

The mountain ranges to the east affect the diffusion of pollutants by inhibiting the eastward transport of pollutants. Air quality in the SoCAB generally ranges from fair to poor and is similar to air quality in most of coastal Southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions (SCAQMD 1993).

2.1.1.4 Inversion

In conjunction with the two characteristic wind patterns that affect the rate and orientation of horizontal pollutant transport, two similarly distinct types of temperature inversions control the vertical depth through which pollutants are mixed. These inversions are the marine/subsidence inversion and the radiation inversion. The height of the base of the inversion at any given time is known as the "mixing height." The combination of winds and inversions is a critical determinant leading to highly degraded air quality in the summer and generally good air quality in the winter in San Bernardino County (SCAQMD 1993).

2.1.2 Criteria Air Pollutants

Criteria air pollutants are defined as those pollutants for which the federal and state governments have established air quality standards for outdoor or ambient concentrations to protect public health with a determined margin of safety. Ozone (O₃), coarse particulate matter (PM₁₀), and fine particulate matter (PM_{2.5}) are generally considered to be regional pollutants because they or their precursors affect air quality on a regional scale. Pollutants such as carbon monoxide (CO), nitrogen dioxide (NO₂), and sulfur dioxide (SO₂) are considered to be local pollutants because they tend to accumulate in the air locally. Particulate matter (PM) is also considered a local pollutant. Health effects commonly associated with criteria pollutants are summarized in Table 2-1.

Table 2-1. Criteria Air Pollutants - Summary of Common Sources and Effects		
Pollutant	Major Artificial Sources	Human Health & Welfare Effects
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.
NO ₂	A reddish-brown gas formed during fuel combustion for motor vehicles, energy utilities and industrial sources.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Causes brown discoloration of the atmosphere.
O ₃	Formed by a chemical reaction between reactive organic gases (ROGs) and nitrogen oxides (NO _x) in the presence of sunlight. Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, 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.
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; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).
SO ₂	A colorless, nonflammable gas formed when fuel containing sulfur is burned. Examples are refineries, cement manufacturing, and locomotives.	Respiratory irritant. Aggravates lung and heart problems. Can damage crops and natural vegetation. Impairs visibility.

Source: California Air Pollution Control Officers Association 2013

2.1.2.1 Carbon Monoxide

CO in the urban environment is associated primarily with the incomplete combustion of fossil fuels in motor vehicles. CO combines with hemoglobin in the bloodstream and reduces the amount of oxygen that can be circulated through the body. High CO concentrations can cause headaches, aggravate cardiovascular disease and impair central nervous system functions. CO concentrations can vary greatly over comparatively short distances. Relatively high concentrations of CO are typically found near crowded intersections and along heavy roadways with slow moving traffic. Even under the most severe meteorological and traffic conditions, high concentrations of CO are limited to locations within relatively short distances of the source. Overall CO emissions are decreasing as a result of the Federal Motor Vehicle Control Program, which has mandated increasingly lower emission levels for vehicles manufactured since 1973. CO levels in the SoCAB are in compliance with the state and federal one- and eight-hour standards.

2.1.2.2 Nitrogen Oxides

Nitrogen gas comprises about 80 percent of the air and is naturally occurring. At high temperatures and under certain conditions, nitrogen can combine with oxygen to form several different gaseous

compounds collectively called nitric oxides (NO_x). Motor vehicle emissions are the main source of NO_x in urban areas. NO_x is very toxic to animals and humans because of its ability to form nitric acid with water in the eyes, lungs, mucus membrane, and skin. In animals, long-term exposure to NO_x increases susceptibility to respiratory infections, and lowering resistance to such diseases as pneumonia and influenza. Laboratory studies show that susceptible humans, such as asthmatics, who are exposed to high concentrations can suffer from lung irritation or possible lung damage. Precursors of NO_x, such as NO and NO₂, attribute to the formation of O₃ and PM_{2.5}. Epidemiological studies have also shown associations between NO₂ concentrations and daily mortality from respiratory and cardiovascular causes and with hospital admissions for respiratory conditions.

2.1.2.3 Ozone

O₃ is a secondary pollutant, meaning it is not directly emitted. It is formed when volatile organic compounds (VOCs) or reactive organic gases (ROGs) and NO_x undergo photochemical reactions that occur only in the presence of sunlight. The primary source of ROG emissions is unburned hydrocarbons in motor vehicle and other internal combustion engine exhaust. NO_x forms as a result of the combustion process, most notably due to the operation of motor vehicles. Sunlight and hot weather cause ground-level O₃ to form. Ground-level O₃ is the primary constituent of smog. Because O₃ formation occurs over extended periods of time, both O₃ and its precursors are transported by wind and high O₃ concentrations can occur in areas well away from sources of its constituent pollutants.

People with lung disease, children, older adults, and people who are active can be affected when O₃ levels exceed ambient air quality standards. Numerous scientific studies have linked ground-level O₃ exposure to a variety of problems including lung irritation, difficult breathing, permanent lung damage to those with repeated exposure, and respiratory illnesses.

2.1.2.4 Particulate Matter

PM includes both aerosols and solid particulates of a wide range of sizes and composition. Of concern are those particles smaller than or equal to 10 microns in diameter size (PM₁₀) and small than or equal to 2.5 microns in diameter (PM_{2.5}). Smaller particulates are of greater concern because they can penetrate deeper into the lungs than larger particles. PM₁₀ is generally emitted directly as a result of mechanical processes that crush or grind larger particles or form the resuspension of dust, typically through construction activities and vehicular travel. PM₁₀ generally settles out of the atmosphere rapidly and is not readily transported over large distances. PM_{2.5} is directly emitted in combustion exhaust and is formed in atmospheric reactions between various gaseous pollutants, including NO_x, sulfur oxides (SO_x) and VOCs. PM_{2.5} can remain suspended in the atmosphere for days and/or weeks and can be transported long distances.

The principal health effects of airborne PM are on the respiratory system. Short-term exposure of high PM_{2.5} and PM₁₀ levels are associated with premature mortality and increased hospital admissions and emergency room visits. Long-term exposure is associated with premature mortality and chronic respiratory disease. According to the U.S. Environmental Protection Agency (USEPA), some people are much more sensitive than others to breathing PM₁₀ and PM_{2.5}. People with influenza, chronic respiratory

and cardiovascular diseases, and the elderly may suffer worse illnesses; people with bronchitis can expect aggravated symptoms; and children may experience decline in lung function due to breathing in PM₁₀ and PM_{2.5}. Other groups considered sensitive include smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive because many breathe through their mouths.

2.1.3 Toxic Air Contaminants

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For regulatory purposes, carcinogenic TACs are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Public exposure to TACs can result from emissions from normal operations, as well as from accidental releases of hazardous materials during upset conditions. The health effects of TACs include cancer, birth defects, neurological damage, and death.

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

2.1.4 Ambient Air Quality

Ambient air quality at the Project Site can be inferred from ambient air quality measurements conducted at nearby air quality monitoring stations. CARB maintains more than 60 monitoring stations throughout California. O₃, PM₁₀ and PM_{2.5} are the pollutant species most potently affecting the Project region. As described in detail below, the region is classified as nonattainment regarding air quality standards for these pollutants. The San Bernardino 4th Street air quality monitoring station (24302 E. 4th Street, San Bernardino), located approximately 6.86 miles east of the Project Site, monitors ambient concentrations of O₃, PM₁₀ and PM_{2.5}.

Table 2-2 summarizes the published data concerning O₃, PM₁₀ and PM_{2.5} from the San Bernardino 4th Street monitoring station.

Table 2-2. Summary of Ambient Air Quality Data			
Pollutant Standards	2021	2022	2023
O₃ – San Bernardino 4th Street Monitoring Station[†]			
Max 1-hour concentration (ppm)	0.142	0.128	0.143
Max 8-hour concentration (ppm) (state/federal)	0.113 / 0.112	0.105 / 0.105	0.118 / 0.118
Number of days above 1-hour standard (state)	6	3	6
Number of days above 8-hour standard (state/federal)	101 / 98	103 / 96	87 / 84
PM₁₀ – San Bernardino 4th Street Monitoring Station			
Max 24-hour concentration (µg/m ³) (state/federal)	71.2 / 182.4	* / 177.8	* / *
Number of days above 24-hour standard (state/federal)	25.8 / 1.0	* 1.0	* / *
PM_{2.5} – San Bernardino 4th Street Monitoring Station			
Max 24-hour concentration (µg/m ³) (state/federal)	57.9 / 57.9	40.1 / 40.1	52.9 / 52.9
Number of days above federal 24-hour standard	3.0	6.4	3.1

Source: California Air Resources Board 2024a

Notes: µg/m³ = micrograms per cubic meter; ppm = parts per million; * = Insufficient data available.

[†] Data for all ambient air quality emissions reported from the San Bernardino 4th Street CARB air quality monitoring station.

The USEPA and CARB designate air basins or portions of air basins and counties as being in “attainment” or “nonattainment” for each of the criteria pollutants. Areas that do not meet the standards are classified as nonattainment areas. The National Ambient Air Quality Standards (NAAQS) (other than O₃, PM₁₀ and PM_{2.5} and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. The NAAQS for O₃, PM₁₀, and PM_{2.5} are based on statistical calculations over one- to three-year periods, depending on the pollutant. The California Ambient Air Quality Standards (CAAQS) are not to be exceeded during a three-year period. The attainment status for the San Bernardino County portion of the SoCAB, which encompasses the Project Site, is included in Table 2-3.

Table 2-3. Attainment Status of Criteria Pollutants in the San Bernardino County Portion of the SoCAB		
Pollutant	State Designation	Federal Designation
O ₃	Nonattainment	Nonattainment
PM ₁₀	Nonattainment	Attainment
PM _{2.5}	Nonattainment	Nonattainment
CO	Attainment	Unclassified/Attainment
NO ₂	Attainment	Unclassified/Attainment
SO ₂	Unclassified/Attainment	Unclassified/Attainment

Source: California Air Resources Board 2023

The determination of whether an area meets the state and federal standards is based on air quality monitoring data. Some areas are unclassified, which means there is insufficient monitoring data for determining attainment or nonattainment. Unclassified areas are typically treated as being in attainment. Because the attainment/nonattainment designation is pollutant-specific, an area may be classified as nonattainment for one pollutant and attainment for another. Similarly, because the state and federal standards differ, an area could be classified as attainment for the federal standards of a pollutant and as nonattainment for the state standards of the same pollutant. The region is designated as a nonattainment area for the federal O₃ and PM_{2.5} standards and is also a nonattainment area for the state standards for O₃, PM_{2.5} and PM₁₀ (CARB 2023).

2.1.5 Sensitive Receptors

Sensitive receptors are defined as facilities or land uses that include members of the population who are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. The SCAQMD defines sensitive receptors as any residence including private homes, condominiums, apartments, and living quarters, schools, preschools, daycare centers, and health facilities such as hospitals or retirement and nursing homes, long term care hospitals, hospices, prisons, and dormitories or similar live-in housing.

The Proposed Project would construct a warehouse building on a 20,000 square-foot lot. The building will be comprised of 6,522 square feet of warehouse facilities and 500 square feet of office space, with a parking lot and heavy-duty truck loading docks inside of the main warehouse. The Proposed Project is surrounded by industrial uses (i.e., building supply stores and warehouses to the north, east, south, and west) and the immediate Project Area is devoid of sensitive receptors. The nearest sensitive receptors to the Project Site include Rialto Middle School and Charlotte N. Werner Elementary School. Both of these schools are located north of the Project Site, across W. Rialto Avenue, at distances greater than 400 feet.

2.2 Regulatory Framework

2.2.1 Federal

2.2.1.1 Clean Air Act

The Clean Air Act (CAA) of 1970 and the CAA Amendments of 1971 required the USEPA to establish the NAAQS, with states retaining the option to adopt more stringent standards or to include other specific pollutants.

These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect public health and welfare. They are designed to protect those “sensitive receptors” most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can

tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

The USEPA has classified air basins (or portions thereof) as being in attainment, nonattainment, or unclassified for each criteria air pollutant, based on whether or not the NAAQS have been achieved. If an area is designated unclassified, it is because inadequate air quality data were available as a basis for a nonattainment or attainment designation. Table 2-3 lists the federal attainment status of the SoCAB for the criteria pollutants.

2.2.2 State

2.2.2.1 California Clean Air Act

The California Clean Air Act (CCAA) allows the State to adopt ambient air quality standards and other regulations provided that they are at least as stringent as federal standards. CARB, a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs within California, including setting the CAAQS. CARB also conducts research, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB also has primary responsibility for the development of California's State Implementation Plan (SIP), for which it works closely with the federal government and the local air districts.

2.2.2.2 California State Implementation Plan

The federal CAA (and its subsequent amendments) requires each state to prepare an air quality control plan referred to as the SIP. The SIP is a living document that is periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The CAA Amendments dictate that states containing areas violating the NAAQS revise their SIPs to include extra control measures to reduce air pollution. The SIP includes strategies and control measures to attain the NAAQS by deadlines established by the CAA. The USEPA has the responsibility to review all SIPs to determine if they conform to the requirements of the CAA.

State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the USEPA for approval and publication in the Federal Register. The *2022 Air Quality Management Plan* (2022 AQMP) is the SIP for the SoCAB. The 2022 AQMP is a regional blueprint for achieving air quality standards and healthful air in the SoCAB and those portions of the Salton Sea Air Basin that are under SCAQMD's jurisdiction. The 2022 AQMP includes aggressive new regulations and the development of incentive programs to support early deployment of advanced technologies. The two key areas for incentive programs are (1) promoting widespread deployment of available zero emission and low NO_x technologies and (2) developing new zero emission and ultra-low NO_x technologies for use in cases where the technology is not currently available. The 2022 AQMP prioritizes distribution of incentive

funding in “environmental justice” areas and seek opportunities to focus benefits on the most disadvantaged communities. The 2022 AQMP focuses on available, proven, and cost-effective alternatives to traditional strategies, while seeking to achieve multiple goals in partnership with other entities promoting reductions in GHGs and toxic risk, as well as efficiencies in energy use, transportation, and goods movement. The AQMP relies on a regional and multi-level partnership of governmental agencies at the federal, state, regional, and local level. These agencies (USEPA, CARB, local governments, Southern California Association of Governments [SCAG] and the SCAQMD) are the primary agencies that implement the AQMP programs. The 2022 AQMP incorporates the latest scientific and technical information and planning assumptions, including SCAG’s latest Regional Transportation Plan/Sustainable Communities Strategy, updated emission inventory methodologies for various source categories, and SCAG’s latest growth forecasts. The 2022 AQMP includes integrated strategies and measures to meet the NAAQS. The current status of the SIPs for the SoCAB’s nonattainment pollutants are shown below:

- On November 28, 2007, CARB submitted a SIP revision to the USEPA for O₃, PM_{2.5} (1997 Standard), CO, and NO₂ in the SoCAB. This revision is identified as the “2007 South Coast SIP”. The 2007 South Coast SIP demonstrates attainment of the federal PM_{2.5} standard in the SoCAB by 2014 and attainment of the federal eight-hour O₃ standard by 2023. This SIP also includes a request to reclassify the O₃ attainment designation from “severe” to “extreme”. The USEPA approved the redesignation effective June 4, 2010. The “extreme” designation requires the attainment of the eight-hour O₃ standard in the SoCAB by June 2024. CARB approved PM_{2.5} SIP revisions in April 2011 and the O₃ SIP revisions in July 2011. The USEPA approved the PM_{2.5} SIP in 2013 and has approved 46 of the 61, 1997 eight-hour O₃ SIP requirements. In 2014, the USEPA proposed a finding that the SoCAB has attained the 1997 PM_{2.5} standards. In 2016, the USEPA determined that the SoCAB had attained the 1997 PM_{2.5} standards; however, the SoCAB was not redesignated as an attainment area because the USEPA had not approved a maintenance plan and additional requirements under the CAA had not been met.
- In 2012, the SCAQMD adopted the 2012 AQMP, which was a regional and multiagency effort (the SCAQMD, CARB, SCAG, and the USEPA). The primary purposes of the 2012 AQMP were to demonstrate attainment of the federal 24-hour PM_{2.5} standard by 2014 and to update the USEPA-approved eight-hour Ozone Control Plan. In 2012, the 2012 AQMP was submitted to CARB and the USEPA for concurrent review and approval for inclusion in the SIP. The 2012 AQMP was approved by CARB on January 25, 2013.
- In 2017, the SCAQMD adopted the 2016 AQMP. The 2016 AQMP includes strategies and measures to meet the following NAAQS:
 - 2008 8-hour O₃ (75 parts per billion [ppb]) by 2013
 - 2012 Annual PM_{2.5} (12 µg/m³) by 2025
 - 1997 8-hour O₃ (80 ppb) by 2023
 - 1979 1-hour O₃ (120 ppb) by 2022
 - 2006 24-hour PM_{2.5} (35 µg/m³) by 2019

- In 2022, the SCAQMD adopted the 2022 AQMP. In response to the USEPA lowering the primary and secondary O₃ standard levels to 70 ppb, the 2022 AQMP was developed to address the requirements for meeting this standard. The 2022 AQMP explores new and innovative ways to accomplish these goals through incentive programs, efficiency improvements, recognition of co-benefits from other programs, regulatory measures, and other voluntary actions.

2.2.2.3 Tanner Air Toxics Act & Air Toxics "Hot Spots" Information and Assessment Act

CARB's statewide comprehensive air toxics program was established in 1983 with Assembly Bill (AB) 1807, the Toxic Air Contaminant Identification and Control Act (Tanner Air Toxics Act of 1983). AB 1807 created California's program to reduce exposure to air toxics and sets forth a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an airborne toxics control measure (ATCM) for sources that emit designated TACs. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions.

CARB also administers the State's mobile source emissions control program and oversees air quality programs established by state statute, such as AB 2588, the Air Toxics "Hot Spots" Information and Assessment Act of 1987. Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority facilities are required to perform a health risk assessment (HRA) and, if specific thresholds are exceeded, required to communicate the results to the public in the form of notices and public meetings. In September 1992, the "Hot Spots" Act was amended by Senate Bill (SB) 1731, which required facilities that pose a significant health risk to the community to reduce their risk through a risk management plan.

2.2.2.4 In-Use Off-Road Diesel-Fueled Fleets Regulation (Off-Road Regulations)

In November 2022, CARB approved amendments to the In-Use Off-Road Diesel-Fueled Fleets Regulation (Off-Road Regulation) aimed at further reducing emissions from the off-road sector. The amendments require fleets to phase-out use of the oldest and highest polluting off-road diesel vehicles in California; prohibit the addition of high-emitting vehicles to a fleet; and require the use of R99 or R100 renewable diesel in off-road diesel vehicles. Off-road vehicles subject to the amended rule are used in construction, mining, industrial operations, and other industries. The amended rule went into effect January 2024.

According to CARB (2022), the amended rule will reduce harmful air pollutants from over 150,000 in-use off-road diesel vehicles that operate in California and is expected to yield \$5.7 billion in health benefits, prevent more than 570 air-quality related deaths and nearly 200 hospitalizations and emergency room visits from 2023 to 2038. From 2024 through 2038, the current amendments will generate an additional reduction above and beyond the current regulation of approximately 31,087 tons of NO_x and 2,717 tons of PM_{2.5} (CARB 2022). About half of those additional reductions are expected to be realized within the first five years of implementation (CARB 2022).

2.2.2.5 Mobile Source Strategy

In 2016 CARB released the update to the Mobile Source Strategy (Strategy). This demonstrates how the state will meet air quality standards, achieve GHG emission reduction targets, decrease health risks from transportation emissions, and reduce petroleum consumption over the next 15 years. This includes engine technology that is effectively 90 percent cleaner than today's current standards, with clean, renewable fuels comprising half the fuels burned.

The strategy also relies on the increased use of renewable fuels to ensure that air pollutant reductions are achieved while meeting the ongoing demand for liquid and gaseous fuels in applications where combustion technologies remain, including in heavy-duty trucks and equipment and light-duty hybrid vehicles. The estimated benefits of the Mobile Source Strategy in reducing emissions from mobile sources includes an 80 percent reduction of O₃-forming emissions (ROG and NO_x), and a 45 percent reduction in DPM emissions in the SoCAB from current levels. Statewide, the Strategy would also result in a 45 percent reduction of GHG emissions and a 50 percent reduction in the consumption of petroleum-based fuels.

2.2.2.6 Governor's Sustainable Freight Action Plan

Under the Governor's Sustainable Freight Action Plan strategy, CARB is working with agency partners and stakeholders to implement a broad program that includes regulations, incentives, and policies designed to support the transformation to a more sustainable freight system and reduce community impacts from freight operations in California. The Governor's Sustainable Freight Action Plan identifies strategies and actions to achieve a sustainable freight transportation system that meets California's environmental, energy, mobility, safety and economic needs. The plan also identifies and initiates corridor-level freight pilot projects within the state's primary trade corridors that integrate advanced technologies, alternative fuels, freight and fuel infrastructure and local economic development opportunities. The plan seeks to improve the state freight system efficiency 25 percent by "increasing the value of goods and services produced from the freight sector, relative to the amount of carbon that it produces by 2030" as well as to deploy over 100,000 zero-emission freight vehicles and equipment and maximizing near-zero equipment and equipment powered by renewable energy by 2030.

2.2.2.7 Truck and Bus Regulation Reducing Emissions from Existing Diesel Vehicles

In 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 diesel trucks and buses that operate in California to be upgraded to reduce emissions. Heavier trucks had to be retrofitted with PM filters beginning January 1, 2012, and older trucks had to be replaced by January 1, 2015. As of January 1, 2023, nearly all trucks and buses had to have 2010-model-year engines or equivalent.

The regulation applies to nearly all privately and federally owned diesel fueled trucks and buses and to privately and publicly owned school buses with a gross vehicle weight rating greater than 14,000 pounds. Small fleets with three or fewer diesel trucks can delay compliance for heavier trucks by reporting and there are a number of 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.

2.2.2.8 Heavy-Duty Vehicle Idling Emission Reduction Program

The purpose of CARB's 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. 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 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, which began 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.

2.2.3 Local

2.2.3.1 Southern California Association of Governments

In April 2024, the SCAG Regional Council adopted the 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy (2024 RTP/SCS). The 2024 RTP/SCS charts a course for closely integrating land use and transportation – so that the region can grow smartly and sustainably. It was prepared through a collaborative, continuous, and comprehensive process with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. The 2024 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental and public health goals. The SCAG region strives toward sustainability through integrated land use and transportation planning. The SCAG region must achieve specific federal air quality standards and is required by state law to lower regional GHG emissions. Specifically, the region has been tasked by CARB to achieve a 19 percent per capita reduction by the end of 2035.

2.2.3.2 South Coast Air Quality Management District

The SCAQMD is the air pollution control agency for all of Orange County and the urban portions of Los Angeles, Riverside, and San Bernardino counties, including the Project Site. The agency's primary responsibility is ensuring that the NAAQS and CAAQS are attained and maintained in the SoCAB. The SCAQMD is also responsible for adopting and enforcing rules and regulations concerning air pollutant sources, issuing permits for stationary sources of air pollutants, inspecting stationary sources of air pollutants, responding to citizen complaints, monitoring ambient air quality and meteorological

conditions, awarding grants to reduce motor vehicle emissions, and conducting public education campaigns, as well as many other activities. All projects are subject to SCAQMD rules and regulations in effect at the time of construction.

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

- Rule 201 & Rule 203 (Permit to Construct & Permit to Operate) – Rule 201 requires a “Permit to Construct” prior to the installation of any equipment “the use of which may cause the issuance of air contaminants . . .” and Regulation II provides the requirements for the application for a Permit to Construct. Rule 203 similarly requires a Permit to Operate.
- Rule 212 (Standards for Approving Permits and Issuing Public Notice)- This rule requires the applicant to show that the equipment used of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, is so designed, controlled, or equipped with such air pollution control equipment that it may be expected to operate without emitting air contaminants in violation of Section 41700, 4170 or 44300 of the Health and Safety Code or of these rules.
- Rule 402 (Nuisance) – This rule prohibits the discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. This rule does not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.
- Rule 403 (Fugitive Dust) – This rule requires fugitive dust sources to implement best available control measures for all sources, and all forms of visible PM are prohibited from crossing any property line. This rule is intended to reduce PM₁₀ emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust. PM₁₀ suppression techniques are summarized below.
 - a) Portions of a construction site to remain inactive longer than a period of three months will be seeded and watered until grass cover is grown or otherwise stabilized.
 - b) All onsite roads will be paved as soon as feasible or watered periodically or chemically stabilized.
 - c) All material transported offsite will be either sufficiently watered or securely covered to prevent excessive amounts of dust.
 - d) The area disturbed by clearing, grading, earthmoving, or excavation operations will be minimized at all times.

- e) Where vehicles leave a construction site and enter adjacent public streets, the streets will be swept daily or washed down at the end of the workday to remove soil tracked onto the paved surface.
- Rule 1113 (Architectural Coatings) – This rule requires manufacturers, distributors, and end-users of architectural and industrial maintenance coatings to reduce ROG emissions from the use of these coatings, primarily by placing limits on the ROG content of various coating categories.
- Rule 1401 (New Source Review of Toxic Air Contaminants) – This rule requires new source review of any new, relocated, or modified permit units that emit TACs. The rule establishes allowable risks for permit units requiring permits pursuant to Rules 201 and 203 discussed above.
- Rule 2305 (Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program) – This rule applies to owners and operators of warehouses located in the SoCAB with greater than or equal to 100,000 square feet of indoor floor space in a single building. Key components of Rule 2305 include:
 - a) Compliance and Reporting: Warehouse owners and operators must submit annual Warehouse Actions and Investments to Reduce Emissions (WAIRE) reports and meet the Warehouse Point Compliance Obligation (WPCO).
 - b) Points-Based System: The WAIRE Program assigns points based on annual truck trips and warehousing activities. Warehouses can earn points by increasing visits from zero-emission or near-zero-emission trucks or by implementing other emission-reducing activities.
 - c) Mitigation Fee: Warehouses that do not earn enough points must pay a mitigation fee, similar to a carbon tax.

Additionally, the SCAQMD has adopted the Clean Communities Plan (November 5, 2010), which is a planning document designed to reduce the exposure to air toxics and air-related nuisances throughout the SoCAB. The 2010 Clean Communities Plan is a planning document that outlines the overall control strategy for the SCAQMD's air toxics control program. The plan is the continuing effort and update to both the Air Toxics Control Plan developed in 2000 and the subsequent Addendum in 2004. The 2010 Clean Communities Plan is comprised of traditional source-specific control measures and measures to address cumulative toxic impacts that affect neighborhoods and communities within the SoCAB.

The SCAQMD has conducted an in-depth analysis of the TACs and their resulting health risks for all of Southern California. This study, the Multiple Air Toxics Exposure Study V (MATES V) shows that cancer risk has decreased more than 40 percent between MATES IV and MATES V (cancer risk decreased more than 50 percent between MATES III and MATES IV). MATES V is the most comprehensive dataset documenting the ambient air toxic levels and health risks associated with the SoCAB emissions. The MATES V study represents the baseline health risk for a cumulative analysis. MATES V estimates the average excess cancer risk level from TAC inhalation is 455 in one million basin-wide. These model estimates were based on monitoring data collected at 10 fixed sites within the SoCAB. None of the fixed monitoring sites are within the local area of the Project Site. However, MATES V has extrapolated the excess cancer risk levels throughout the basin by modeling the specific grids. MATES V modeling predicted an excess cancer risk

of 455 in one million for the Project Area. DPM is included in this cancer risk along with all other TAC sources. DPM accounts for the majority of total risk (67 percent) shown in MATES V. (MATES VI is currently in the planning stage and will be conducted over the next several years. Until results are available, the MATES V study provides the most up to date assessment of air toxics risk throughout the region.)

2.2.3.3 City of Rialto General Plan

The City of Rialto's General Plan Chapter Two combines three elements of the General Plan required by State law, plus community design:

- Land Use
- Community Design
- Open Space
- Conservation

This chapter lists goals, associated policies, and general background information related to air quality, hazards and hazardous materials, wildland hazards, flooding and floodplains, seismic activity, noise, community facilities and protection services with the City. The goals, policy statements, and background information help guide the City council, Planning Commission, committees and boards, and City staff to review and decide whether a healthy and safe physical environment is being maintained and community welfare is accessible through effective and efficient high-quality public services. The goals, policies, and implementation program listed below are pertinent to the Proposed Project's impact on air quality (City of Rialto 2010).

- Goal 2-36: Reduce the amount of fugitive dust released into the atmosphere.
 - Policy 2-36.2: Support programs and policies of the South Coast Air Quality Management District regarding restrictions on grading operations at construction projects.

2.3 Air Quality Emissions Impact Assessment

2.3.1 Thresholds of Significance

The impact analysis provided below is based on the following California Environmental Quality Act (CEQA) Guidelines Appendix G thresholds of significance. The Project would result in a significant impact to air quality if it would do any of the following:

- 1) Conflict with or obstruct implementation of any applicable air quality plan.
- 2) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).
- 3) Expose sensitive receptors to substantial pollutant concentrations.

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

2.3.1.1 South Coast Air Quality Management District Regional Thresholds

The significance criteria established by the applicable air quality management or air pollution control district (SCAQMD) may be relied upon to make the above determinations. According to the SCAQMD, an air quality impact is considered significant if the Proposed Project would violate any ambient air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations. The SCAQMD has established thresholds of significance for air quality for construction and operational activities of land use development projects such as that proposed, as shown in Table 2-4.

Table 2-4. SCAQMD Regional Significance Thresholds – Pounds per Day		
Air Pollutant	Construction Activities	Operations
Reactive Organic Gas	75	55
Carbon Monoxide	550	550
Nitrogen Oxide	100	55
Sulfur Oxide	150	150
Coarse Particulate Matter	150	150
Fine Particulate Matter	55	55

Source: South Coast Air Quality Management District 2023

Air pollution is largely a cumulative impact. 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. If a project’s individual emissions exceed its identified significance thresholds, the project would be cumulatively considerable. Projects that do not exceed significance thresholds would not be considered cumulative considerable.

2.3.1.2 South Coast Air Quality Management District Localized Significance Thresholds

In addition to regional significance thresholds, the SCAQMD developed localized significance thresholds (LSTs) for emissions of NO₂, CO, PM₁₀, and PM_{2.5} generated at new development sites (offsite mobile source emissions are not included in the LST analysis protocol). LSTs represent the maximum emissions that can be generated at a project site without expecting to cause or substantially contribute to an exceedance of the most stringent national or state ambient air quality standards. LSTs are based on the ambient concentrations of that pollutant within the Project source receptor area (SRA), as demarcated by the SCAQMD, and the distance to the nearest sensitive receptor. The Project Site is located within SCAQMD SRA 34 (Central San Bernardino Valley). Table 2-5 shows the LSTs for a one-, two-, and five-acre project site in SRA 25 with sensitive receptors located within 100 meters of the Project Site.

Table 2-5. Local Significance Thresholds at 100 Meters of a Sensitive Receptor				
Project Size (acre)	Pollutant (pounds per day) Construction / Operations			
	NO₂	CO	PM₁₀	PM_{2.5}
1	211 / 211	2,141 / 2,141	33 / 8	9 / 3
2	263 / 263	2,738 / 2,738	42 / 10	12 / 3
5	378 / 378	4,142 / 4,142	65 / 16	17 / 5

Source: South Coast Air Quality Management District 2009

2.3.2 Methodology

Air quality impacts were assessed in accordance with methodologies recommended by the SCAQMD. 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 construction-generated air pollutant emissions were calculated using CalEEMod model defaults for San Bernardino County and the Project Site Plan. Specifically, total building square footage of the Proposed Project is provided in the Site Plan along with the amount of parking available. The remaining square footage is assigned to the parking lot land use to account for landscaping or other hardscape surfaces. Operational emissions are calculated using CalEEMod model defaults for San Bernardino County coupled with daily trips provided by K2 Traffic Engineering, Inc. (2021) to inform the modeling calculations of operational mobile source emissions. For the purposes of this analysis, all truck trips were considered "Heavy-Heavy-Duty Trucks" in CalEEMod's fleet mix input, which accounts for trucks weighing from an estimated 33,000-60,000 pounds, providing a conservative estimation of criteria air pollutant generation from mobile sources. The average truck trip length is calculated at 41.4 miles, which represents the average distance between the Project Site and the Port of Los Angeles/Long Beach, the Project Site and the Banning Pass, the Project Site and the San Diego County line, the Project Site and the Cajon Pass, and the Project Site and downtown Los Angeles, consistent with SCAQMD recommendation for calculating heavy-duty truck emissions. Operational area source emissions account for emissions associated with pesticides used for maintenance of lawn areas, parking degreasers, parking lot paint, and landscaping equipment emissions. Energy source emissions account for emissions associated with onsite natural gas combustion at the Project Site.

2.3.3 Impact Analysis

2.3.3.1 Project Construction-Generated Criteria Air Quality Emissions

Regional Construction Significance Analysis

Construction-generated emissions are temporary and short-term but have the potential to represent a significant air quality impact. The basic sources of short-term emissions that will be generated through

construction of the Proposed Project would be from ground-disturbing activities and from the operation of the construction vehicles (i.e., trenchers, dump trucks). Construction activities such as excavation and grading operations, construction vehicle traffic, and wind blowing over exposed soils would generate exhaust emissions and fugitive PM emissions that affect local air quality at various times during construction. Effects would be variable depending on the weather, soil conditions, the amount of activity taking place, and the nature of dust control efforts. The dry climate of the area during the summer months creates a high potential for dust generation. Construction activities would be subject to SCAQMD Rule 403, which requires taking reasonable precautions to prevent the emissions of fugitive dust, such as using water or chemicals, where possible, for control of dust during the clearing of land and other construction activities.

Construction-generated emissions associated with the Proposed Project are calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements.

Predicted maximum daily construction-generated emissions for the Proposed Project are summarized in Table 2-6. Construction-generated emissions are short-term and of temporary duration, lasting only as long as construction activities occur, but are considered a significant air quality impact if the volume of pollutants generated exceeds the SCAQMD's thresholds of significance.

Table 2-6. Construction-Related Emissions (Regional Significance Analysis)						
Construction Year	Pollutant (pounds per day)					
	ROG	NO_x	CO	SO₂	PM₁₀	PM_{2.5}
Construction Calendar Year One	1.95	10.50	15.00	0.02	1.94	1.12
<i>SCAQMD Regional Significance Threshold</i>	<i>75</i>	<i>100</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
Exceed SCAQMD Regional Threshold?	No	No	No	No	No	No

Source: CalEEMod version 2022.1. Refer to Appendix A for Model Data Outputs.

Notes: Emission reduction/credits for construction emissions are applied based on the required implementation of SCAQMD Rule 403. The specific Rule 403 measures applied in CalEEMod include the following: sweeping/cleaning adjacent roadway access areas daily; water exposed surfaces three times daily; water unpaved construction roads; and limit speeds on unpaved roads.

As shown in Table 2-6, emissions generated during Project construction would not exceed the SCAQMD's regional thresholds of significance. Therefore, criteria pollutant emissions generated during Project construction would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard, and no health effects from Project criteria pollutants would occur.

Localized Construction Significance Analysis

As previously described, the Proposed Project would construct a warehouse building on a 20,000 square-foot lot. The building will be comprised of 6,522 square feet of warehouse facilities and 500 square feet of office space, with a parking lot and heavy-duty truck loading docks inside of the main warehouse. The

nearest sensitive land use that would be impacted by onsite construction activities consist of the middle school and elementary school across W. Rialto Ave to the north, approximately 425 feet distant. In order to identify localized, air toxic-related impacts to sensitive receptors, the SCAQMD recommends addressing LSTs for construction. LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the Final Localized Significance Threshold Methodology (dated June 2003 [revised 2008]) for guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with Project-specific level proposed projects.

For this Project, the appropriate SRA for the localized significance thresholds is Central San Bernardino Valley (SRA 34). LSTs apply to CO, NO₂, PM₁₀, and PM_{2.5}. As previously described, the SCAQMD has produced lookup tables for projects that disturb one, two and five acres. Since the Project Site is approximately 0.46 acre in total, the LST threshold values for a one-acre site were used.

LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. The closest sensitive receptor is located approximately 425 feet, or 129 meters, from the Project Site's southeastern boundary. Therefore, this analysis used LSTs for receptors located at 100 meters. Using the LST for receptors located 100 meters from the source of emissions is conservative in this scenario considering the nearest receptor is located approximately 129 meters from the Project Site boundary and would allow emissions to disperse over more space. The SCAQMD's methodology clearly states that "...offsite mobile emissions from a project should not be included in the emissions compared to LSTs." Therefore, for purposes of the construction LST analysis, only emissions included in the CalEEMod *onsite* emissions outputs were considered. Table 2-7 presents the results of localized emissions. The LSTs reflect a maximum disturbance of the entire Project Site daily at 100 meters from sensitive receptors.

Table 2-7. Maximum Construction-Related Emissions (Localized Significance Analysis)				
Activity	Onsite Pollutant (pounds per day)			
	NO_x	CO	PM₁₀	PM_{2.5}
Demolition	4.33	5.65	0.16	0.14
Site Preparation	4.16	5.57	0.35	0.21
Grading	10.10	10.00	1.84	1.10
Building Construction, Paving and Painting	10.39	13.39	0.44	0.41
<i>SCAQMD Localized Significance Threshold</i> (1 acre of disturbance at 100 meters)	<i>211</i>	<i>2,141</i>	<i>33</i>	<i>9</i>
Exceed SCAQMD Localized Threshold?	No	No	No	No

Source: CalEEMod version 2022.1. Refer to Appendix A for Model Data Outputs.

Notes: Emissions taken from the year and season, summer or winter, with the highest outputs. Emission reduction/credits for construction emissions are applied based on the required implementation of SCAQMD Rule 403. The specific Rule 403 measures applied in CalEEMod include the following: sweeping/cleaning adjacent roadway access areas daily; water exposed surfaces three times daily; water unpaved construction roads; and limit speeds on unpaved roads.

Table 2-7 shows that the emissions of these pollutants during construction would not result in significant concentrations of pollutants at nearby sensitive receptors. Therefore, significant impacts would not occur concerning LSTs during construction activities. LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative. The SCAQMD Environmental Justice Enhancement Initiative program seeks to ensure that everyone has the right to equal protection from air pollution. Therefore, significant impacts would not occur concerning LSTs during construction activities.

2.3.3.2 Project Operations Criteria Air Quality Emissions

Regional Operational Significance Analysis

Implementation of the Project would result in long-term operational emissions of criteria air pollutants such as PM₁₀, PM_{2.5}, CO, and SO₂ as well as O₃ precursors such as ROG and NO_x. Project-generated increases in emissions would be predominantly associated with motor vehicle use from employees. Operational air pollutant emissions were based on the building square footage provided by the Project's Site Plan and traffic information provided by K2 Traffic Engineering, Inc. Long-term operational emissions attributable to the Project are identified in Table 2-8 and compared to the operational significance thresholds promulgated by the SCAQMD.

Table 2-8. Operational-Related Emissions (Regional Significance Analysis)						
Emission Source	Pollutant(pounds per day)					
	ROG	NO_x	CO	SO₂	PM₁₀	PM_{2.5}
Summer Emissions						
Mobile	0.08	0.64	1.16	0.01	0.41	0.11
Area	0.22	0.00	0.31	0.00	0.00	0.00
Energy	0.00	0.05	0.04	0.00	0.00	0.00
Total:	0.30	0.69	1.51	0.01	0.41	0.11
<i>SCAQMD Regional Significance Threshold</i>	<i>55</i>	<i>55</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
Exceed SCAQMD Regional Threshold?	No	No	No	No	No	No
Winter Emissions						
Mobile	0.07	0.67	0.99	0.01	0.41	0.11
Area	0.17	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.05	0.04	0.00	0.00	0.00
Total:	0.24	0.72	1.03	0.01	0.41	0.11
<i>SCAQMD Regional Significance Threshold</i>	<i>55</i>	<i>55</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
Exceed SCAQMD Regional Threshold?	No	No	No	No	No	No

Table 2-8. Operational-Related Emissions (Regional Significance Analysis)						
Emission Source	Pollutant(pounds per day)					
	ROG	NO_x	CO	SO₂	PM₁₀	PM_{2.5}

Source: CalEEMod version 2022.1. Refer to Appendix A for Model Data Outputs.

Notes: Emission projections predominately based on CalEEMod model defaults for San Bernardino County and square footage identified in the Project’s Site Plan coupled with daily trips provided by the Project Proponent to inform the modeling calculations of operational mobile source emissions. Operational area source emissions account for emissions associated with pesticides used for maintenance of lawn areas, parking degreasers, parking lot paint, and landscaping equipment emissions. Energy source emissions account for emissions associated with onsite natural gas combustion at the Project Site. The average truck trip length is calculated at 41.4 miles, which represents the average distance between the Project Site and the Port of Los Angeles/Long Beach, the Project Site and the Banning Pass, the Project Site and the San Diego County line, the Project Site and the Cajon Pass, and the Project Site and downtown Los Angeles.

As shown in Table 2-8, the Project’s emissions would not exceed any SCAQMD thresholds for any criteria air pollutants during operation.

As identified in Table 2-3, the San Bernardino County portion of the SoCAB is designated as a nonattainment area for the federal O₃ and PM_{2.5} standards and is also a nonattainment area for the state standards for O₃, PM_{2.5} and PM₁₀ (CARB 2023). O₃ is a health threat to persons who already suffer from respiratory diseases and can cause severe ear, nose and throat irritation and increases susceptibility to respiratory infections. PM can adversely affect the human respiratory system. As shown in Table 2-8, the Proposed Project would result in increased emissions of the O₃ precursor pollutants ROG and NO_x, as well as SO₂, PM₁₀, and PM_{2.5}, however, the correlation between a project’s emissions and increases in nonattainment days, or frequency or severity of related illnesses, cannot be accurately quantified. The overall strategy for reducing air pollution and related health effects in the SCAQMD is contained in the SCAQMD 2022 AQMP. The AQMP provides control measures that reduce emissions to attain federal ambient air quality standards by their applicable deadlines such as the application of available cleaner technologies, best management practices, incentive programs, as well as development and implementation of zero and near-zero technologies and control methods. The CEQA thresholds of significance established by the SCAQMD are designed to meet the objectives of the AQMP and in doing so achieve attainment status with state and federal standards. As noted above, the Project would increase the emission of these pollutants but would not exceed the thresholds of significance established by the SCAQMD for purposes of reducing air pollution and its deleterious health effects.

Localized Operational Significance Analysis

According to the SCAQMD localized significance threshold methodology, LSTs would apply to the operational phase of a proposed project only if the project includes stationary sources (e.g., smokestacks) or attracts heavy-duty trucks that may spend long periods queuing and idling at the site (e.g., warehouse or transfer facilities). The Proposed Project would construct a warehouse building on a 20,000 square-foot lot. The building will be comprised of 6,522 square feet of warehouse facilities and 500 square feet of office space, with a parking lot and heavy-duty truck loading docks inside of the main warehouse.

Therefore, in the case of the Proposed Project, the operational phase LST protocol is applied. Operational LSTs apply to CO, NO₂, PM₁₀, and PM_{2.5}.

The nearest sensitive receptors to onsite construction activity are schools located across W. Rialto Avenue, approximately 425 feet (129 meters) distant at the nearest. LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. LSTs for receptors located at 100 meters were utilized in this analysis as a conservative approach.

The appropriate SRA for the localized significance thresholds is SRA 34 (Central San Bernardino Valley) since this area includes the Project Site. As described, the SCAQMD has produced lookup tables for projects under five acres. As the Project Site is 0.46-acre in size, the Project's emissions are compared to the one-acre thresholds established by SCAQMD.

For a worst-case scenario assessment, the emissions shown in Table 2-9 include all "onsite" project-related stationary (area) sources and 10 percent of the Project-related mobile sources. The 10 percent of the Project-related mobile sources represents onsite movement of cars, vans, and trucks on the Project Site. Considering that the longest weighted trip length used for calculating mobile emissions is approximately 41.4 miles for heavy duty trucks, 10 percent of this total would represent an onsite travel distance for each truck of approximately 4.1 miles; thus, the 10 percent assumption is conservative and would tend to overstate the actual impact.

Operational LSTs apply to CO, NO₂, PM₁₀, and PM_{2.5}. Therefore, Table 2-9 presents the results of localized NO_x, CO, PM₁₀, and PM_{2.5} emissions associated with the Project.

Activity	Onsite Pollutant (pounds per day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Onsite Emissions (Summer)	0.12	0.47	0.04	0.01
Onsite Emissions (Winter)	0.12	0.14	0.04	0.01
<i>SCAQMD Localized Significance Threshold (1.0 acre of disturbance at 100 meters)</i>	<i>151</i>	<i>1,344</i>	<i>8</i>	<i>3</i>
Exceed SCAQMD Localized Threshold?	No	No	No	No

Source: CalEEMod 2022.1. Refer to Appendix A for Model Data Outputs. The average truck trip length is calculated at 41.4 miles, which represents the average distance between the Project Site and the Port of Los Angeles/Long Beach, the Project Site and the Banning Pass, the Project Site and the San Diego County line, the Project Site and the Cajon Pass, and the Project Site and downtown Los Angeles.

As shown in Table 2-9, the emissions of these pollutants on the peak day of operations would not result in significant concentrations of pollutants at nearby sensitive receptors.

2.3.3.3 Conflict with the 2022 Air Quality Management Plan

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

As previously mentioned, the Project Site is located within the SoCAB, which is under the jurisdiction of the SCAQMD. The SCAQMD is required, pursuant to the federal CAA, to reduce emissions of criteria pollutants for which the SoCAB is in nonattainment. In order to reduce such emissions, the SCAQMD drafted and adopted the 2022 AQMP. The 2022 AQMP establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving state and federal air quality standards. The 2022 AQMP is a regional and multi-agency effort including the SCAQMD, CARB, SCAG, and the USEPA. The 2022 AQMP includes a wide range of control measures and actions to reduce combustion-related activities, decrease combustion of fossil fuels, and improve energy efficiency. The plan's pollutant control strategies are based on the latest scientific and technical information and planning assumptions.

Determination of whether a project supports the goals in the 2022 AQMP is achieved by a comparison of Project-estimated emissions with SCAQMD thresholds of significance. If project emissions would not exceed the thresholds of significance after the application of all feasible mitigation measures, the project is consistent with the goals of the 2022 AQMP. As shown in Tables 2-6, 2-7, 2-8, and 2-9, emissions generated during Project construction and operations would not exceed the SCAQMD significance thresholds. For these reasons the Project would not conflict with SCAQMD's 2022 AQMP or any regional air quality planning.

2.3.3.4 Exposure of Sensitive Receptors to Toxic Air Contaminants

As previously described, sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over age 65, children under age 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. The SCAQMD defines sensitive receptors as any residence including private homes, condominiums, apartments, and living quarters, schools, preschools, daycare centers, and health facilities such as hospitals or retirement and nursing homes, long term care hospitals, hospices, prisons, and dormitories or similar live-in housing. The nearest sensitive receptors would be the schools located across W. Rialto Avenue to the north, located approximately 425 feet distant.

Construction-Generated Air Contaminants

Construction-related activities would result in temporary, short-term Proposed Project-generated emissions of DPM, ROG, NO_x, CO, and PM₁₀ from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., clearing, grading); soil hauling truck traffic; paving; and other miscellaneous activities. The portion of the SoCAB which encompasses the Project Area is designated as a nonattainment area for federal O₃ and PM_{2.5} standards and is also a nonattainment area for the state standards for O₃, PM_{2.5} and PM₁₀ (CARB 2023). Thus, existing O₃, PM₁₀, and PM_{2.5} levels in the SoCAB are at unhealthy levels during certain periods. However, as shown in Table 2-6 and Table 2-7, the Project would not exceed the SCAQMD regional or localized significance thresholds for construction emissions.

The health effects associated with O₃ are generally associated with reduced lung function. O₃ is not emitted directly into the air but is formed through complex chemical reactions between precursor emissions of ROG and NO_x in the presence of sunlight. The reactivity of O₃ causes health problems because it damages lung tissue, reduces lung function and sensitizes the lungs to other irritants. Scientific evidence indicates that ambient levels of O₃ not only affect people with impaired respiratory systems, such as asthmatics, but healthy adults and children as well. Exposure to O₃ for several hours at relatively low concentrations has been found to significantly reduce lung function and induce respiratory inflammation in normal, healthy people during exercise. This decrease in lung function generally is accompanied by symptoms including chest pain, coughing, sneezing and pulmonary congestion.

Studies show associations between short-term O₃ exposure and non-accidental mortality, including deaths from respiratory issues. Studies also suggest long-term exposure to O₃ may increase the risk of respiratory-related deaths. The concentration of O₃ at which health effects are observed depends on an individual's sensitivity, level of exertion (i.e., breathing rate), and duration of exposure. Studies show large individual differences in the intensity of symptomatic responses, with one study finding no symptoms to the least responsive individual after a 2-hour exposure to 400 parts per billion of O₃ and a 50 percent decrement in forced airway volume in the most responsive individual. Although the results vary, evidence suggests that sensitive populations (e.g., asthmatics) may be affected on days when the 8-hour maximum O₃ concentration reaches 80 parts per billion. Because the Project would not involve construction activities that would result in O₃ precursor emissions (i.e., ROG or NO_x) in excess of the SCAQMD thresholds, which are set to be protective of human health and account for cumulative emissions in the SoCAB, the Project is not anticipated to substantially contribute to regional O₃ concentrations and the associated health impacts.

CO tends to be a localized impact associated with congested intersections. In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions. The Project would not involve construction activities that would result in CO emissions in excess of the SCAQMD thresholds, which are set to be protective of human health and account for cumulative emissions in the SoCAB. Thus, the Project's CO emissions would not contribute to the health effects associated with this pollutant.

Particulate matter (PM₁₀ and PM_{2.5}) contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. Particulate matter exposure has been linked to a variety of problems, including premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms such as irritation of the airways, coughing, or difficulty breathing. For construction activity, DPM is the primary TAC of concern. PM₁₀ exhaust is considered a surrogate for DPM as all diesel exhaust is considered to be DPM and it contains PM_{2.5} exhaust as a subset. As with O₃ and NO_x, the Project would not generate emissions of PM₁₀ or PM_{2.5} that would exceed the SCAQMD's thresholds. The increases of these pollutants generated by the Proposed Project would not on their own generate an increase in the number of days exceeding the NAAQS or CAAQS standards. Therefore, PM₁₀ and PM_{2.5} emissions, when combined with the existing PM emitted regionally, would have minimal health effect on people located in the immediate vicinity of the Project Site. Additionally, the Project would be required to comply with Rule 403 for fugitive dust control, as described above, which limits the amount of fugitive dust generated during construction. Accordingly, the Project's PM₁₀ and PM_{2.5} emissions are not expected to cause any increase in related regional health effects for these pollutants.

In summary, Project construction would not result in a potentially significant contribution to regional concentrations of nonattainment pollutants and would not result in a significant contribution to the adverse health impacts associated with those pollutants. Furthermore, the Project has been evaluated against the SCAQMD's LSTs for construction. As previously stated, LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative and can be used to assist lead agencies in analyzing localized impacts associated with Project-specific level of proposed projects. The SCAQMD Environmental Justice Enhancement Initiative program seeks to ensure that everyone has the right to equal protection from air pollution. The Environmental Justice Program is divided into three categories, with the LST protocol promulgated under Category I: *Further-Reduced Health Risk*. As shown in Table 2-7, the emissions of pollutants on the peak day of construction would not result in significant concentrations of pollutants at nearby sensitive receptors. Thus, the fact that onsite Project construction emissions would be generated at rates below the LSTs for NO_x, CO, PM₁₀, and PM_{2.5} demonstrates that the Project would not adversely impact vicinity sensitive receptors.

Operational Air Contaminants

The health risk public-notification thresholds adopted by the SCAQMD is 10 excess cancer cases in a million for cancer risk and a hazard index of more than one (1.0) for non-cancer risk. Examples of projects that emit toxic pollutants over long-term operations include oil and gas processing, gasoline dispensing, dry cleaning, electronic and parts manufacturing, medical equipment sterilization, freeways, and rail yards. Operation of the Proposed Project would not result in the development of any substantial sources of air toxics. There are no stationary sources associated with the operations of the Project. The operational emissions are expected to come from vehicle emissions from employees and trucks visiting the Project Site. The low quantity of heavy-duty trucks expected during Project operations is not expected to generate substantial air toxics in the vicinity of the Project Site. Furthermore, according to Table 2-8 and Table 2-9, Project emissions would not result in emissions of criteria pollutants over the SCAQMD's thresholds, which are set to be protective of human health and account for cumulative emissions in the

SoCAB. Therefore, there would not be significant concentrations of pollutants at nearby sensitive receptors as a result of the Project. The Project would not be a substantial source of TACs. The Project would not result in a high carcinogenic or non-carcinogenic risk during operation.

Carbon Monoxide Hot Spots

It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when idling at intersections. Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Under certain meteorological conditions, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Given the high traffic volume potential, 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. It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. However, transport of this criteria pollutant is extremely limited, and CO disperses rapidly with distance from the source under normal meteorological conditions. Furthermore, vehicle emissions standards have become increasingly more stringent in the last 20 years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the SoCAB is designated as in attainment. Detailed modeling of Project-specific CO "hot spots" is not necessary and thus this potential impact is addressed qualitatively.

A CO "hot spot" would occur if an exceedance of the state one-hour standard of 20 parts per million (ppm) or the eight-hour standard of 9 ppm were to occur. The analysis prepared for CO attainment in the SCAQMD's 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan) in Los Angeles County and a Modeling and Attainment Demonstration prepared by the SCAQMD as part of the 2003 AQMP can be used to demonstrate the potential for CO exceedances of these standards. The SCAQMD is the air pollution control officer for much of southern California. The SCAQMD conducted a CO hot spot analysis as part of the 1992 CO Plan at four busy intersections in Los Angeles County during the peak morning and afternoon time periods. The intersections evaluated included Long Beach Boulevard and Imperial Highway (Lynwood), Wilshire Boulevard and Veteran Avenue (Westwood), Sunset Boulevard and Highland Avenue (Hollywood), and La Cienega Boulevard and Century Boulevard (Inglewood). The busiest intersection evaluated was at Wilshire Boulevard and Veteran Avenue, which has a traffic volume of approximately 100,000 vehicles per day. Despite this level of traffic, the CO analysis concluded that there was no violation of CO standards (SCAQMD 1992). In order to establish a more accurate record of baseline CO concentrations affecting the Los Angeles, a CO "hot spot" analysis was conducted in 2003 at the same four busy intersections in Los Angeles at the peak morning and afternoon time periods. This "hot spot" analysis did not predict any violation of CO standards. The highest one-hour concentration was measured at 4.6 ppm at Wilshire Boulevard and Veteran Avenue and the highest eight-hour concentration was measured at 8.4 ppm at Long Beach Boulevard and Imperial Highway. Thus, there was no violation of CO standards.

Similar considerations are also employed by other Air Districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District, the air pollution control officer for the San Francisco Bay Area, concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact.

The Proposed Project is anticipated to result in 40 daily trips. Thus, the Proposed Project would not generate traffic volumes at any intersection of more than 100,000 vehicles per day (or 44,000 vehicles per hour) and there is no likelihood of the Proposed Project traffic exceeding CO values.

2.3.3.5 Odors

Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals have the ability to smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to another. It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

During construction, the Proposed Project presents the potential for generation of objectionable odors in the form of diesel exhaust in the immediate vicinity of the site. However, these emissions are short-term in nature and will rapidly dissipate and be diluted by the atmosphere downwind of the emission sources. It is expected that the odors associated with the Project's construction would not be concentrated or stagnant near any of the sensitive receptors, specifically the schools to the north. Additionally, odors would be localized and generally confined to the construction area. Therefore, construction odors would not adversely affect a substantial number of people to odor emissions.

According to the SCAQMD, land uses commonly considered to be potential sources of obnoxious odorous emissions include agriculture (farming and livestock), wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding. The Proposed Project does not include any uses identified by the SCAQMD as being associated with odors.

3.0 GREENHOUSE GAS EMISSIONS

3.1 Greenhouse Gas Setting

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected back toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. Because the earth has a much lower temperature than the sun, it emits lower-frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead trapped, resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth. Without the greenhouse effect, the earth would not be able to support life as we know it.

Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). Fluorinated gases also make up a small fraction of the GHGs that contribute to climate change. Fluorinated gases include chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride; however, it is noted that these gases are not associated with typical land use development. Human-caused emissions of these GHGs in excess of natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. More specifically, experts agree that human activities, principally through emissions of greenhouse gases, have unequivocally caused global warming, with global surface temperature reaching 1.1°C above 1850–1900 in 2011–2020. (Intergovernmental Panel on Climate Change [IPCC] 2023).

Table 3-1 describes the primary GHGs attributed to global climate change, including their physical properties, primary sources, and contributions to the greenhouse effect.

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. CH₄ traps over 25 times more heat per molecule than CO₂, and N₂O absorbs 298 times more heat per molecule than CO₂. Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO₂e), which weigh each gas by its global warming potential. Expressing GHG emissions in CO₂e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO₂ were being emitted.

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and TACs, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of any particular GHG molecule is dependent on multiple variables and cannot be pinpointed, it is understood that more CO₂ is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, or other forms. Despite the sequestration of CO₂, human-

caused climate change is already causing damaging effects, including weather and climate extremes in every region across the globe (IPCC 2023).

Greenhouse Gas	Description
CO ₂	Carbon dioxide is a colorless, odorless gas. CO ₂ is emitted in a number of ways, both naturally and through human activities. The largest source of CO ₂ emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, industrial facilities, and other sources. A number of specialized industrial production processes and product uses such as mineral production, metal production, and the use of petroleum-based products can also lead to CO ₂ emissions. The atmospheric lifetime of CO ₂ is variable because it is so readily exchanged in the atmosphere.*
CH ₄	Methane is a colorless, odorless gas and is the major component of natural gas, about 87 percent by volume. It is also formed and released to the atmosphere by biological processes occurring in anaerobic environments. Methane is emitted from a variety of both human-related and natural sources. Human-related sources include fossil fuel production, animal husbandry (intestinal fermentation in livestock and manure management), rice cultivation, biomass burning, and waste management. These activities release significant quantities of CH ₄ to the atmosphere. Natural sources of CH ₄ include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires. The atmospheric lifetime of CH ₄ is about 12 years.**
N ₂ O	Nitrous oxide is a clear, colorless gas with a slightly sweet odor. Nitrous oxide is produced by both natural and human-related sources. Primary human-related sources of N ₂ O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. N ₂ O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N ₂ O is approximately 120 years.†

Sources: * U.S. Environmental Protection Agency (USEPA) 2023a

** USEPA 2023b

† USEPA 2023c

The quantity of GHGs that it takes to ultimately result in climate change is not precisely known; it is sufficient to say the quantity is enormous, and no single project alone would measurably contribute to a noticeable incremental change in the global average temperature or to global, local, or microclimates. From the standpoint of CEQA, GHG impacts to global climate change are inherently cumulative.

3.1.1 Sources of Greenhouse Gas Emissions

In 2024, CARB released the 2024 edition of the *California GHG Emissions from 2000 to 2022: trends of Emissions and Other Indicators* report. In 2022, California emitted 371.1 million metric tons of CO₂e. This inventory is 2.4 percent lower than in 2021. The 2022 emissions data shows that the State of California is continuing its established long-term trend of GHG emission declines, despite the anomalous emissions trends from 2019 through 2021, due in large part to the impacts of the COVID-19 pandemic. Overall trends in the Inventory continue to demonstrate that the carbon intensity of California's economy (the amount of carbon pollution per million dollars of gross state product (GSP)) is declining. California's GSP

increased by 0.7 percent in 2022, and emissions per GSP declined by 3.1 percent from 2021 to 2022. Combustion of fossil fuel in the transportation sector was the single largest source of California's GHG emissions in 2022, accounting for approximately 37.7 percent of total GHG emissions in the state. Transportation emissions have decreased 3.6 percent from 2021 levels due to reductions from on-road, rail and, to a lesser extent, intrastate aviation transportation. Emissions from the electricity sector account for 16.1 percent of the Inventory, which is a decrease of 4.1 percent since 2021, notable due to the growth of in-state solar, wind, and hydropower energy generation. California's industrial sector accounts for the second largest source of the state's GHG emissions in 2022, accounting for 19.6 percent, which saw a decrease of 2 percent since 2021 (CARB 2024b).

3.2 Regulatory Framework

3.2.1 State

3.2.1.1 Executive Order S-3-05

Executive Order (EO) S-3-05, signed by Governor Arnold Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra Nevada snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the EO established total GHG emission targets for the state. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

3.2.1.2 Assembly Bill 32 Climate Change Scoping Plan and Updates

In 2006, the California legislature passed Assembly Bill (AB) 32 (Health and Safety Code § 38500 et seq., or AB 32), also known as the Global Warming Solutions Act. AB 32 required CARB to design and implement feasible and cost-effective emission limits, regulations, and other measures, such that statewide GHG emissions are reduced to 1990 levels by 2020 (representing a 25 percent reduction in emissions). Pursuant to AB 32, CARB adopted a Scoping Plan in December 2008, which outlined measures to meet the 2020 GHG reduction goals. California exceeded the target of reducing GHG emissions to 1990 levels by the year 2017.

The Scoping Plan is required by AB 32 to be updated at least every five years. The latest update, the 2022 Scoping Plan Update, outlines strategies and actions to reduce GHG emissions in California. The plan focuses on achieving the state's goal of reaching carbon neutrality by 2045 and reducing GHG emissions to 40 percent below 1990 levels by 2030. The plan includes a range of strategies across various sectors, including transportation, industry, energy, and agriculture. Some of the key strategies include transitioning to zero-emission vehicles, expanding renewable energy sources, promoting sustainable land use practices, implementing a low-carbon fuel standard, and reducing emissions from buildings. Additionally, the plan addresses equity and environmental justice by prioritizing investments in communities most impacted by pollution and climate change. The plan also aims to promote economic growth and job creation through the transition to a low-carbon economy.

3.2.1.3 Senate Bill 32 of 2016

In August 2016, Governor Brown signed SB 32 and AB 197, which serve to extend California's GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include § 38566, which contains language to authorize CARB to achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030 (the other provisions of AB 32 remained unchanged). On December 14, 2017, CARB adopted the 2017 Scoping Plan, which provided a framework for achieving the 2030 target. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program, as well as implementation of recently adopted policies. The 2017 Scoping Plan also placed an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2013 Scoping Plan Update, the 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends that local governments adopt policies and locally appropriate quantitative thresholds consistent with Statewide per capita goals of no more than 6 metric tons of CO_{2e} by 2030 and 2 metric tons of CO_{2e} by 2050.

3.2.1.4 Assembly Bill 197 of 2016

AB 197 is a bill linked to SB 32 and was signed on September 8, 2016. AB 197 prioritizes efforts to cut GHG emissions in low-income or minority communities. AB 197 requires CARB to make available, and update at least annually, the emissions of GHGs, criteria pollutants, and toxic air contaminants for each facility that reports to CARB and air districts. In addition, AB 197 adds two Members of the Legislature to the CARB board as ex officio, non-voting members and creates the Joint Legislative Committee on Climate Change Policies to ascertain facts and make recommendations to the Legislature and the houses of the Legislature concerning the State's programs, policies, and investments related to climate change.

3.2.1.5 Assembly Bill 1279 of 2022

In September 2022, Governor Brown signed AB 1279, The California Climate Crisis Act, which requires California to achieve carbon neutrality as soon as possible, but no later than 2045, and to achieve and maintain net negative GHG emissions thereafter. AB 1279 also requires that by 2045 statewide anthropogenic GHG emissions be reduced to at least 85 percent below 1990 levels and directs CARB to ensure that its scoping plan identifies and recommends measures to achieve these goals. AB 1279 also directs CARB to identify policies and strategies to enable carbon capture, utilization, and storage and CO₂ removal technologies to meet emission reduction goals. In addition, CARB is required to submit an annual report on progress in achieving the 2022 Scoping Plan's goals.

In response to the passage of AB 1279 and the identification of the 2045 GHG emissions reduction target, CARB published the Final 2022 Climate Change Scoping Plan in November 2022 (2022 Update). The 2022 Update builds upon the framework established by the 2008 Climate Change Scoping Plan and previous updates while identifying a new, technologically feasible, cost-effective, and equity-focused path to achieve California's climate target. The 2022 Update includes policies to achieve a significant reduction in fossil fuel combustion, further reductions in short-lived climate pollutants, support for sustainable

development, increased action on natural and working lands to reduce emissions and sequester carbon, and the capture and storage of carbon.

The 2022 Update assesses the progress California is making toward reducing its GHG emissions by at least 40 percent below 1990 levels by 2030, as called for in SB 32 and laid out in the 2017 Scoping Plan; addresses recent legislation and direction from Governor Newsom; extends and expands upon these earlier plans; and implements a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045, as well as taking an additional step of adding carbon neutrality as a science-based guide for California's climate work. As stated in the 2022 Update, "the plan outlines how carbon neutrality can be achieved by taking bold steps to reduce GHGs to meet the anthropogenic emissions target and by expanding actions to capture and store carbon through the State's natural and working lands and using a variety of mechanical approaches." Specifically, the 2022 Update achieves the following:

- Identifies a path to keep California on track to meet its SB 32 GHG reduction target of at least 40 percent below 1990 emissions by 2030.
- Identifies a technologically feasible, cost-effective path to achieve carbon neutrality by 2045 and a reduction in anthropogenic emissions by 85 percent below 1990 levels.
- Focuses on strategies for reducing California's dependency on petroleum to provide consumers with clean energy options that address climate change, improve air quality, and support economic growth and clean sector jobs.
- Integrates equity and protecting California's most impacted communities as driving principles throughout the document.
- Incorporates the contribution of natural and working lands to the State's GHG emissions, as well as their role in achieving carbon neutrality.
- Relies on the most up-to-date science, including the need to deploy all viable tools to address the existential threat that climate change presents, including carbon capture and sequestration, as well as direct air capture.
- Evaluates the substantial health and economic benefits of taking action.
- Identifies key implementation actions to ensure success.

In addition to reducing emissions from transportation, energy, and industrial sectors, the 2022 Update includes emissions and carbon sequestration in natural and working lands and explores how they contribute to long-term climate goals. Under the Scoping Plan Scenario, California's 2030 emissions are anticipated to be 48 percent below 1990 levels, representing an acceleration of the current SB 32 target. Cap-and-trade regulation continues to play a large factor in the reduction of near-term emissions for meeting the accelerated 2030 reduction target. Every sector of the economy will need to begin to transition in this decade to meet these GHG emissions reduction goals and achieve carbon neutrality no later than 2045. The 2022 Update approaches decarbonization from two perspectives, managing a phasedown of existing energy sources and technologies, as well as increasing, developing, and deploying alternative clean energy sources and technology.

3.2.1.6 Executive Order N-79-20

Governor Gavin Newsom signed an executive order on September 23, 2020, that would phase out sales of new gas-powered passenger cars by 2035 with an additional 10-year transition period for heavy vehicles. The State would not restrict used car sales, nor forbid residents from owning gas-powered vehicles, meaning that the overall reduction in GHG emissions would likely not substantially reduce GHG emissions from vehicles for many years after the ban goes into effect.

3.2.1.7 Senate Bill 100 of 2018

In 2018, SB 100 was signed codifying a goal of 60 percent renewable procurement by 2030 and 100 percent by 2045 Renewables Portfolio Standard.

3.2.1.8 Senate Bill 1020 of 2022

SB 1020, the Clean Energy, Jobs, and Affordability Act of 2022, adds interim targets to the policy framework originally established in SB 100 to require renewable energy and zero-carbon resources to supply 90 percent of all retail electricity sales by 2035 and 95 percent of all retail electricity sales by 2040. Additionally, the bill requires all state agencies to rely on 100 percent renewable energy and zero-carbon resources to serve their own facilities by 2035. This bill also requires that CARB's Scoping Plan workshops be held in non-attainment areas and requires the California Public Utilities Commission, the California Energy Commission, and CARB to create a joint report on electricity reliability.

3.2.1.9 Senate Bill 375 of 2008

SB 375 set forth a mechanism for coordinating land use and transportation on a regional level for the purpose of reducing GHG emissions. SB 375 was adopted with a goal of reducing fuel consumption and GHG emissions from cars and light trucks. Under SB 375, CARB was required to set GHG reduction targets for each metropolitan region for 2020 and 2035, and each of California's metropolitan planning organizations was responsible to prepare a sustainable communities strategy that demonstrates how the region will meet its GHG reduction target through integrated land use, housing, and transportation planning. The SCAG Regional Council adopted the 2024 RTP/SCS to remain compliant with SB 375.

3.2.1.10 2022 Building Energy Efficiency Standards for Residential and Nonresidential Buildings

The Building and Efficiency Standards (Energy Standards) were first adopted and put into effect in 1978 and have been updated periodically in the intervening years. These standards are a unique California asset that have placed the State on the forefront of energy efficiency, sustainability, energy independence and climate change issues. The 2022 California Building Codes include provisions related to energy efficiency to reduce energy consumption and GHG emissions from buildings. Some of the key energy efficiency components of the codes are:

- 1) Energy Performance Requirements: The codes specify minimum energy performance standards for the building envelope, lighting, heating and cooling systems, and other components.
- 2) Lighting Efficiency: The codes require that lighting systems meet minimum efficiency standards, such as the use of energy-efficient light bulbs and fixtures.
- 3) HVAC Systems: The codes establish requirements for heating, ventilation, and air conditioning (HVAC) systems, including the use of high-efficiency equipment, duct sealing, and controls.
- 4) Building Envelope: The codes include provisions for insulation, air sealing, glazing, and other building envelope components to reduce energy loss and improve indoor comfort.
- 5) Renewable Energy: The codes encourage the use of renewable energy systems, such as photovoltaic panels and wind turbines, to reduce dependence on non-renewable energy sources.
- 6) Commissioning: The codes require the commissioning of building energy systems to ensure that they are installed and operate correctly and efficiently.

Overall, the energy efficiency provisions of the 2022 California Building Codes aim to reduce the energy consumption of buildings, lower energy costs for building owners and occupants, and reduce the environmental impact of the built environment. The 2022 Building Energy Efficiency Standards improve upon the 2019 Energy Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The exact amount by which the 2022 Building Codes are more efficient compared to the 2019 Building Codes would depend on the specific provisions that have been updated and the specific building being considered. However, in general, the 2022 Building Codes have been updated to include increased requirements for energy efficiency, such as higher insulation and air sealing standards, which are intended to result in more efficient buildings. The 2022 standards are a major step toward meeting Zero Net Energy.

3.2.2 Local

3.2.2.1 South Coast Air Quality Management District

To provide guidance to local lead agencies on determining significance for GHG emissions in CEQA documents, SCAQMD staff is convening an ongoing GHG CEQA Significance Threshold Working Group. Members of the working group include government agencies implementing CEQA and representatives from various stakeholder groups that provide input to SCAQMD staff on developing the significance thresholds. On October 8, 2008, the SCAQMD released the Draft AQMD Staff CEQA GHG Significance Thresholds. These thresholds have not been finalized and continue to be developed through the working group.

The Draft AQMD Staff CEQA GHG Significance Thresholds guidance document, which builds on the previous guidance prepared by the California Air Pollution Control Officers Association (CAPCOA), explored various approaches for establishing a significance threshold for GHG emissions and was described as a “work in progress” of efforts to date. However, the draft interim CEQA thresholds guidance document was not adopted or approved by the Governing Board. In December 2008, the SCAQMD

adopted a 10,000 metric tons of CO₂e per year threshold for stationary source/industrial projects for which the SCAQMD is the lead agency. From December 2008 to September 2010, SCAQMD hosted working group meetings and revised the draft threshold proposal several times, although it did not officially provide these proposals in a subsequent document. SCAQMD has continued to consider adoption of significance thresholds for residential and general land use development projects. The most recent proposal, issued in September 2010, used the following tiered approach to evaluate potential GHG impacts from various uses:

- Tier 1: Determine if CEQA categorical exemptions are applicable. If not, move to Tier 2.
- Tier 2: Consider whether or not the proposed project is consistent with a locally adopted GHG reduction plan that has gone through public hearing and CEQA review, that has an approved inventory, includes monitoring, etc. If not, move to Tier 3.
- Tier 3: Consider whether the project generates GHG emissions in excess of screening thresholds for individual land uses. The 10,000 metric tons of CO₂e per year threshold for industrial uses would be recommended for use by all lead agencies. Under option 1, separate screening thresholds are proposed for residential projects (3,500 metric tons of CO₂e per year), commercial projects (1,400 metric tons of CO₂e per year), and mixed-use projects (3,000 metric tons of CO₂e per year). Under option 2, a single numerical screening threshold of 3,000 metric tons of CO₂e per year would be used for all non-industrial projects. If the project generates emissions in excess of the applicable screening threshold, move to Tier 4.
- Tier 4: Consider whether the project generates GHG emissions in excess of applicable performance standards for the project service population (population plus employment). The efficiency targets were established based on the goal of AB 32 to reduce statewide GHG emissions by 40 percent by 2035. The efficiency-based threshold of 3.0 metric tons of CO₂e per service population (defined as the people that work and/or congregate on the Project Site) per year in 2035. If the project generates emissions in excess of the applicable efficiency targets, move to Tier 5.
- Tier 5: Consider the implementation of CEQA mitigation (including the purchase of GHG offsets) to reduce the project efficiency target to Tier 4 levels.

The SCAQMD has not announced when staff are expecting to present a finalized version of its GHG thresholds to the governing board.

These thresholds were developed as part of the SCAQMD GHG CEQA Significance Threshold Working Group. This working group was formed to assist SCAQMD's efforts to develop a GHG significance threshold and is composed of a wide variety of stakeholders including the State Office of Planning and Research (OPR), CARB, the Attorney General's Office, a variety of city and county planning departments in the SoCAB, various utilities such as sanitation and power companies throughout the SoCAB, industry groups, and environmental and professional organizations. These thresholds were developed to be consistent with CEQA requirements for developing significance thresholds, are supported by substantial

evidence, and provides guidance to CEQA practitioners with regard to determining whether GHG emissions from a proposed land use project are significant.

3.2.2.2 Southern California Association of Governments

In April 2024, the SCAG Regional Council adopted the 2024-2050 RTP/SCS. The 2024 RTP/SCS charts a course for closely integrating land use and transportation – so that the region can grow smartly and sustainably. It was prepared through a collaborative, continuous, and comprehensive process with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. The 2024 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental and public health goals. The SCAG region strives toward sustainability through integrated land use and transportation planning. The SCAG region must achieve specific federal air quality standards and is required by state law to lower regional GHG emissions. Specifically, the region has been tasked by CARB to achieve a 19 percent per capita reduction by the end of 2035.

3.2.2.3 City of Rialto General Plan

The City of Rialto’s General Plan Chapter 2, Managing Our Land Supply, identifies goals related to GHG emissions within the City. Goals and policies that relate to GHG emissions impacts include the following: (City of Rialto 2011).

- Goal 2-30: Incorporate green building and other sustainable building practices into development projects.
 - Policy 2-30.1: Explore and adopt the use of green building standards and Leadership in Energy and Environmental Design (LEED) or similar in both private and public projects.
 - Policy 2-30.2: Promote sustainable building practices that go beyond the requirements of Title 24 of the California Administrative Code, and encourage energy-efficient design elements, as appropriate.
- Goal 2-31: Conserve energy resources
 - Policy 2-31.1: Require the incorporation of energy conservation features into the design of all new construction and site development activities.
- Goal 2-38: Mitigate against climate change.
 - Policy 2-38.1: Consult with State agencies, SCAG, and the San Bernardino Associated Governments to implement AB 32 and SB 375 by utilizing incentives to facilitate infill and transit-oriented development.

3.2.2.4 City of Rialto Climate Adaptation Plan

The City of Rialto Climate Adaptation Plan (CAP) outlines goals to reduce energy consumption and GHG emissions to become a more sustainable community. Goals include:

- Prevent truck routes from disproportionately impacting disadvantaged communities;
- Create a clean air checklist for new development of sensitive land uses;
- Increase use of low-emission and electric vehicles where feasible;
- Adopt building and maintenance standards that reflect the regional best practices in reducing urban heat island effect.

3.3 Greenhouse Gas Emissions Impact Assessment

3.3.1 Thresholds of Significance

The impact analysis provided below is based on the following CEQA Guidelines Appendix G thresholds of significance. The Project would result in a significant impact to greenhouse gas emissions if it would:

- 1) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
- 2) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

The Appendix G thresholds for GHG emissions do not prescribe specific methodologies for performing an assessment, do not establish specific thresholds of significance, and do not mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance consistent with the manner in which other impact areas are handled in CEQA. With respect to GHG emissions, the CEQA Guidelines Section 15064.4(a) states that lead agencies "shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions resulting from a project. The CEQA Guidelines note that an agency has the discretion to either quantify a project's GHG emissions or rely on a "qualitative analysis or other performance-based standards." (14 CCR 15064.4(b)). A lead agency may use a "model or methodology" to estimate GHG emissions and has the discretion to select the model or methodology it considers "most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change." (14 CCR 15064.4(c)). Section 15064.4(b) provides that the lead agency should consider the following when determining the significance of impacts from GHG emissions on the environment:

- 1) The extent a project may increase or reduce GHG emissions as compared to the existing environmental setting.
- 2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.

- 3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4(b)).

In addition, Section 15064.7(c) of the CEQA Guidelines specifies that “[w]hen adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence” (14 CCR 15064.7(c)). The CEQA Guidelines also clarify that the effects of GHG emissions are cumulative and should be analyzed in the context of CEQA’s requirements for cumulative impact analysis (see CEQA Guidelines Section 15130). As a note, the CEQA Guidelines were amended in response to SB 97. In particular, the CEQA Guidelines were amended to specify that compliance with a GHG emissions reduction plan renders a cumulative impact insignificant.

Per CEQA Guidelines Section 15064(h)(3), a project’s incremental contribution to a cumulative impact can be found not cumulatively considerable if the project would comply with an approved plan or mitigation program that provides specific requirements that would avoid or substantially lessen the cumulative problem within the geographic area of the project. To qualify, such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. Examples of such programs include a “water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plans [and] plans or regulations for the reduction of greenhouse gas emissions.” Put another way, CEQA Guidelines Section 15064(h)(3) allows a lead agency to make a finding of less than significant for GHG emissions if a project complies with adopted programs, plans, policies and/or other regulatory strategies to reduce GHG emissions.

The local air quality agency regulating the SoCAB is the SCAQMD, the regional air pollution control officer for the basin. As previously stated, to provide guidance to local lead agencies on determining significance for GHG emissions in CEQA documents, SCAQMD staff convened a GHG CEQA Significance Threshold Working Group. The Working Group was formed to assist the SCAQMD’s efforts to develop a GHG significance threshold and is composed of a wide variety of stakeholders including the State Office of Planning and Research (OPR), CARB, the Attorney General’s Office, a variety of city and county planning departments in the Basin, various utilities such as sanitation and power companies throughout the Basin, industry groups, and environmental and professional organizations. The numeric bright line and efficiency-based thresholds described above were developed to be consistent with CEQA requirements for developing significance thresholds, are supported by substantial evidence, and provide guidance to CEQA practitioners and lead agencies with regard to determining whether GHG emissions from a proposed project are significant.

In *Center for Biological Diversity v. Department of Fish and Wildlife* (2015) 62 Cal. 4th 2014, 213, 221, 227, following its review of various potential GHG thresholds proposed in an academic study [Crockett, *Addressing the Significance of Greenhouse Gas Emissions: California's Search for Regulatory Certainty in an Uncertain World* (July 2011), 4 Golden Gate U. Envtl. L. J. 203], the California Supreme Court identified the

use of numeric bright-line thresholds as a potential pathway for compliance with CEQA GHG requirements. The study found numeric bright line thresholds designed to determine when small projects were so small as to not cause a cumulatively considerable impact on global climate change was consistent with CEQA. Specifically, Public Resources Code section 21003(f) provides it is a policy of the State that "[a]ll persons and public agencies involved in the environmental review process be responsible for carrying out the process in the most efficient, expeditious manner in order to conserve the available financial, governmental, physical and social resources with the objective that those resources may be better applied toward the mitigation of actual significant effects on the environment." The Supreme Court-reviewed study noted, "[s]ubjecting the smallest projects to the full panoply of CEQA requirements, even though the public benefit would be minimal, would not be consistent with implementing the statute in the most efficient, expeditious manner. Nor would it be consistent with applying lead agencies' scarce resources toward mitigating actual significant climate change impacts." (Crockett, *Addressing the Significance of Greenhouse Gas Emissions: California's Search for Regulatory Certainty in an Uncertain World* (July 2011), 4 Golden Gate U. Envtl. L. J. 203, 221, 227.)

The significance of the Project's GHG emissions is evaluated consistent with CEQA Guidelines Section 15064.4(b)(2) by considering whether the Project complies with applicable plans, policies, regulations and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. The Project will be compared to the SCAQMD adopted numeric bright-line threshold of 10,000 metric tons of CO₂e annually for industrial land uses. Additionally, the Proposed Project will be evaluated with consistency with the SCAG's 2024 RTP/SCS, which contains regional GHG-reduction goals for passenger automobiles and light trucks, and the City of Rialto Climate Adaptation Plan.

3.3.2 Methodology

Where GHG emission quantification was required, emissions were modeled using CalEEMod, version 2022.1. CalEEMod is a statewide land use emissions computer model designed to quantify potential GHG emissions associated with both construction and operations from a variety of land use projects. Project construction-generated GHG emissions were calculated using CalEEMod model defaults for San Bernardino County and the Project Site Plan. Specifically, total building square footage of the Proposed Project is provided in the Site Plan along with the amount of parking available. The remaining square footage is assigned to the parking lot land use to account for landscaping or other asphalt surfaces. Operational GHG emissions are calculated using CalEEMod model defaults for San Bernardino County coupled with daily trips provided by K2 Traffic Engineering, Inc. to inform the modeling calculations of operational mobile source emissions. For the purposes of this analysis, all truck trips were considered "Heavy-Heavy-Duty Trucks" in CalEEMod's fleet mix input, which accounts for trucks weighing from an estimated 33,000-60,000 pounds, providing a conservative estimation of GHG emission generation from mobile sources. The average truck trip length is calculated at 41.4 miles, which represents the average distance between the Project Site and the Port of Los Angeles/Long Beach, the Project Site and the Banning Pass, the Project Site and the San Diego County line, the Project Site and the Cajon Pass, and the Project Site and downtown Los Angeles, consistent with SCAQMD recommendation for calculating heavy-duty truck emissions. Operational area source emissions account for emissions associated with pesticides used for maintenance of lawn areas, parking degreasers, parking lot paint, and landscaping equipment

emissions. Energy source emissions account for emissions associated with onsite natural gas combustion at the Project Site as well as indirect electricity and natural gas consumption. Project emission estimates also account for the indirect electricity consumption required to convey water and wastewater to and from the Project Site and the hauling and decomposition of solid waste generated by the Project.

3.3.3 Impact Analysis

3.3.3.1 Generation of GHG emissions, Either Directly or Indirectly, That May Have a Significant Impact on the Environment

Project Construction

Construction-related activities that would generate GHG emissions include worker commute trips, haul trucks carrying supplies and materials to and from the Project Site, and off-road construction equipment (e.g., dozers, loaders, excavators). Table 3-2 illustrates the specific construction generated GHG emissions that would result from construction of the Project. Once construction is complete, the generation of these GHG emissions would cease.

Table 3-2. Construction-Related Greenhouse Gas Emissions	
Emissions Source	CO₂e (Metric Tons/Year)
Construction Calendar Year One	124
Total Construction Emissions	124

Source: CalEEMod version 2022.1. Refer to Appendix A for Model Data Outputs.

Notes: Project construction generated GHG emissions were calculated using CalEEMod model defaults for San Bernardino County and information from the Proposed Project Site Plan.

As shown in Table 3-2, Project construction would result in the generation of approximately 124 metric tons of CO₂e over the course of construction. Once construction is complete, the generation of these GHG emissions would cease. Consistent with SCAQMD recommendations, Project construction GHG emissions have been amortized over the expected life of the Project, which is considered to be 30 years per the SCAQMD, and added to the annual average operational emissions (see Table 3-3).

Project Operations

Operation of the Project would result in an increase in GHG emissions primarily associated with mobile sources. Long-term operational GHG emissions attributed to the Project are identified in Table 3-3.

Table 3-3. Operational-Related Greenhouse Gas Emissions	
Emissions Source	CO₂e (Metric Tons/Year)
Construction Emissions (Amortized)	5
Mobile	131
Area	< 1

Table 3-3. Operational-Related Greenhouse Gas Emissions	
Emissions Source	CO₂e (Metric Tons/Year)
Energy	49
Water	5
Waste	2
Refrigeration	29
Total	221
<i>SCAQMD Numeric Significance Threshold</i>	<i>10,000</i>
Exceed SCAQMD Numeric Threshold?	No

Source: CalEEMod version 2022.1. Refer to Appendix A for Model Data Outputs.

Notes: Emission projections predominately based on CalEEMod model defaults for San Bernardino County and building square footage identified in the Project Site Plan coupled with daily trips provided by the Project Proponent to inform the modeling calculations of operational mobile source emissions. The average truck trip length is calculated at 41.4 miles, which represents the average distance between the Project Site and the Port of Los Angeles/Long Beach, the Project Site and the Banning Pass, the Project Site and the San Diego County line, the Project Site and the Cajon Pass, and the Project Site and downtown Los Angeles.

As shown in Table 3-3, the Project would generate 221 metric tons of CO₂e annually which would not exceed the SCAQMD numeric brightline threshold for industrial projects of 10,000 metric tons of CO₂e annually. SCAQMD thresholds were developed based on substantial evidence that such thresholds represent quantitative levels of GHG emissions, compliance with which means that the environmental impact of the GHG emissions will normally not be cumulatively considerable under CEQA. These thresholds were developed as part of the SCAQMD GHG CEQA Significance Threshold Working Group. The working group was formed to assist the SCAQMD's efforts to develop a GHG significance threshold and is composed of a wide variety of stakeholders including the State OPR, CARB, the Attorney General's Office, a variety of city and county planning departments in the SoCAB, various utilities such as sanitation and power companies throughout the basin, industry groups, and environmental and professional organizations.

3.3.3.2 Conflicts with any Applicable Plan, Policy, or Regulation of an Agency Adopted for the Purpose of Reducing the Emissions of Greenhouse Gases

2024 RTP/SCS

In April 2024, the SCAG Regional Council adopted the 2024 RTP/SCS. The 2024 RTP/SCS charts a course for closely integrating land use and transportation – so that the region can grow smartly and sustainably. It was prepared through a collaborative, continuous, and comprehensive process with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. The 2024 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental and public health goals. The SCAG region strives toward sustainability through integrated land use and transportation planning. The SCAG region must

achieve specific federal air quality standards and is required by state law to lower regional GHG emissions. Specifically, the region has been tasked by CARB to achieve a 19 percent per capita reduction by the end of 2035.

A core strategy of the 2024 RTP/SCS is “focused growth” in existing communities along the existing transportation network. This strategy allows the best efficiency in achieving key regional economic, environmental, and equity goals: it builds upon existing community characteristics, efficiently leverages existing infrastructure, and mitigates impacts on areas with less development. The 2024 RTP/SCS identifies Priority Development Areas (PDAs), which are areas within the SCAG region where future growth can be located to help the region reach Plan goals, including a 19 percent per capita reduction in GHG emissions by the end of 2035. Generally, this means that people in these areas have access to multiple modes of transportation or that trip origins and destinations are closer together, allowing for shorter trips. PDAs are technical tools to facilitate Plan development and analysis. As a general principle, development in PDAs indicates a greater alignment with Plan goals. PDAs in Connect SoCal 2024 include Neighborhood Mobility Areas (NMAs), Transit Priority Areas (TPAs), Livable Corridors and Spheres of Influence (SOIs) (in unincorporated areas only). These defined areas within the SCAG region are presented in Map 3.4, *Priority Development Areas*, of the RTP/SCS (SCAG 2024). PDAs follow the principles of center-focused placemaking, providing locations where many Connect SoCal strategies can be fully realized. Additionally, PDAs assist with guiding the Forecasted Regional Development Pattern. Connect SoCal’s PDAs—NMAs, TPAs, Livable Corridors and SOIs—account for 8.2 percent of the region’s total land area (SCAG 2024). However, implementation of SCAG’s recommended growth strategies will help these areas accommodate 66 percent of forecasted household growth and 54 percent of forecasted employment growth between 2019 and 2050 (SCAG 2024). This more compact form of regional development, if fully realized, can reduce travel distances, increase mobility options, improve access to workplaces and conserve the region’s resource areas.

The Project Site is located within a Livable Corridor PDA (SCAG 2024). Livable Corridors are areas where local jurisdictions can plan and zone for increased density at nodes along key corridors and redevelop single-story underperforming retail with well-designed, higher-density housing and employment centers. Growth at strategic nodes along key corridors, many of which are within High Quality Transit Corridors, will make transit a more convenient and viable option. The Livable Corridors network is developed utilizing select variables from past plans like High Quality Transit Corridors and input from local jurisdictions during the Local Data Exchange process. Additionally, this strategy integrates certain transit improvements, including Bus Rapid Transit (BRT), other features improving bus performance and user experience, and certain active transportation improvements to support safe bicycling and walking. Since the Project is located within a focused growth area within the SCAG region where future growth can be located to help the region reach its goal of a 19 percent per capita reduction in GHG emissions by the end of 2035, it is consistent with the 2024 RTP/SCS and it can be assumed that regional mobile emissions will decrease in line with the goals of the 2024 RTP/SCS with implementation of the Proposed Project. Implementing the 2024 RTP/SCS will greatly reduce the regional GHG emissions from transportation, and the Proposed Project will not obstruct the achievement of the 2024 RTP/SCS emission reduction targets.

City of Rialto Climate Adaptation Plan

In 2021, the City of Rialto adopted the City of Rialto CAP, a long-range plan to reduce communitywide GHG emissions from activities within the City limits. The CAP is a strategy for the City to continue to grow in a sustainable way that meets GHG reduction targets while continuing to allow for public and private development and redevelopment that will uphold the City as a vibrant and livable community. These efficiency-based targets represent the AB 32 and SB 32 targeted emissions levels for 2020 and 2030 on a per service population basis.

The CAP includes strategies and measures that the City will implement to achieve its GHG emissions targets over the next two decades. Implementing the City's CAP will greatly reduce the regional GHG emissions from transportation, helping to achieve statewide emission reduction targets. All development in the City, including the Project, is required to adhere to all applicable City-adopted policy provisions, including those contained in the City CAP. The City ensures all applicable provisions of the CAP are incorporated into projects and their permits through development review and applications of conditions of approval as applicable. All of the applicable and feasible provisions of the City GHG-reduction program as promulgated by its CAP will be incorporated into the Proposed Project. Therefore, the Proposed Project would in no way conflict with the stated goals of the CAP and thus would not interfere with City's ability to achieve the goals set forth in the CAP. The Proposed Project would not conflict with the CAP GHG-reduction targets. As such, the Project would not conflict with applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions.

4.0 REFERENCES

- California Air Pollution Control Officers Association (CAPCOA). 2022. *California Emissions Estimator Model (CalEEMod), version 2022.1*.
- _____. 2013. *Health Effects*.
- California Air Resources Board (CARB). 2024a. *Air Quality Data Statistics*.
<http://www.arb.ca.gov/adam/index.html>.
- _____. 2024b. *California Greenhouse Gas Emissions from 2000 to 2022: trends of Emissions and Other Indicators*. https://ww2.arb.ca.gov/sites/default/files/2024-09/nc-2000_2022_ghg_inventory_trends.pdf.
- _____. 2023. *State and Federal Area Designation Maps*. <https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations>.
- _____. 2022. *Website: In-Use Off-Road Diesel-Fueled Fleets Regulation*. <https://ww2.arb.ca.gov/our-work/programs/use-road-diesel-fueled-fleets-regulation>.
- Intergovernmental Panel on Climate Change (IPCC). 2023. *Climate Change 2023 Synthesis Report – Summary for Policymakers*.
https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_SPM.pdf.
- K2 Traffic Engineering, Inc. 2021. *Scoping Agreement for Traffic Impact Analysis*.
- Rialto, City of. 2021. *Climate Adaptation Plan Website*.
<https://www.rialtoca.gov/DocumentCenter/View/2248/Final-Rialto-Climate-Adaptation-Plan>
- _____. 2010. *General Plan*. <https://www.rialtoca.gov/DocumentCenter/View/1494/2010-General-Plan>.
- Southern California Association of Governments (SCAG). 2024. *2024-2050 Regional Transportation Plan/Sustainable Communities Strategy. Connect SoCal: A Plan for Navigating to a Brighter Future*.
- South Coast Air Quality Management District (SCAQMD). 2023. *South Coast AQMD Air Quality Significance Thresholds*.
- _____. 2009. *Localized Significance Threshold Appendix C – Mass Rate LST Look-Up Tables*. Revised October 21, 2009. <http://www.aqmd.gov/ceqa/handbook/LST/LST.html>.
- _____. 2008. *Final Localized Significance Threshold Methodology (dated June 2003 [revised 2008])*.
- _____. 2003. *2003 Air Quality Management Plan*.
- _____. 1993. *CEQA Air Quality Handbook*.
- _____. 1992. *1992 Federal Attainment Plan for Carbon Monoxide*.
- U.S. Environmental Protection Agency (USEPA). 2023a. *Climate Change – Greenhouse Gas Emissions: Carbon Dioxide*. <http://www.epa.gov/climatechange/emissions/co2.html>.

____. 2023b. *Methane*. <https://www3.epa.gov/climatechange/ghgemissions/gases/ch4.html>.

____. 2023c. *Nitrous Oxide*. <https://www3.epa.gov/climatechange/ghgemissions/gases/n2o.html>.

CalEEMod Output File for Air Quality Emissions and Greenhouse Gas Emissions

Larch Avenue Industrial Project Detailed Report

Table of Contents

1. Basic Project Information
 - 1.1. Basic Project Information
 - 1.2. Land Use Types
 - 1.3. User-Selected Emission Reduction Measures by Emissions Sector
2. Emissions Summary
 - 2.1. Construction Emissions Compared Against Thresholds
 - 2.2. Construction Emissions by Year, Unmitigated
 - 2.4. Operations Emissions Compared Against Thresholds
 - 2.5. Operations Emissions by Sector, Unmitigated
3. Construction Emissions Details
 - 3.1. Demolition (2025) - Unmitigated
 - 3.3. Site Preparation (2025) - Unmitigated
 - 3.5. Grading (2025) - Unmitigated
 - 3.7. Building Construction (2025) - Unmitigated
 - 3.9. Paving (2025) - Unmitigated

3.11. Architectural Coating (2025) - Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

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

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

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

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Larch Avenue Industrial Project
Construction Start Date	7/1/2025
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.20
Precipitation (days)	14.2
Location	34.09888127488004, -117.39307322447564
County	San Bernardino-South Coast
City	Rialto
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5330
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Refrigerated Warehouse-No Rail	6.52	1000sqft	0.15	6,522	0.00	—	—	—

Parking Lot	9.00	Space	0.30	0.00	1,000	—	—	—
General Office Building	0.50	1000sqft	0.01	500	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.95	10.5	15.0	0.02	0.46	1.48	1.94	0.43	0.69	1.12	—	2,593	2,593	0.11	0.03	1.20	2,607
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.94	10.5	14.6	0.02	0.44	0.28	0.72	0.40	0.07	0.47	—	2,568	2,568	0.11	0.03	0.03	2,581
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.55	3.08	4.28	0.01	0.13	0.09	0.22	0.12	0.02	0.14	—	744	744	0.03	0.01	0.15	748
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.10	0.56	0.78	< 0.005	0.02	0.02	0.04	0.02	< 0.005	0.03	—	123	123	0.01	< 0.005	0.02	124

2.2. Construction Emissions by Year, Unmitigated

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

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

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.95	10.5	15.0	0.02	0.46	1.48	1.94	0.43	0.69	1.12	—	2,593	2,593	0.11	0.03	1.20	2,607
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.94	10.5	14.6	0.02	0.44	0.28	0.72	0.40	0.07	0.47	—	2,568	2,568	0.11	0.03	0.03	2,581
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.55	3.08	4.28	0.01	0.13	0.09	0.22	0.12	0.02	0.14	—	744	744	0.03	0.01	0.15	748
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.10	0.56	0.78	< 0.005	0.02	0.02	0.04	0.02	< 0.005	0.03	—	123	123	0.01	< 0.005	0.02	124

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.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.30	0.69	1.51	0.01	0.01	0.40	0.42	0.01	0.10	0.12	6.62	1,091	1,097	0.75	0.10	176	1,323
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.25	0.72	1.03	0.01	0.01	0.40	0.42	0.01	0.10	0.12	6.62	1,070	1,076	0.75	0.10	174	1,300
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.28	0.73	1.27	0.01	0.01	0.40	0.41	0.01	0.10	0.12	6.62	1,074	1,080	0.75	0.10	175	1,305
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.05	0.13	0.23	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	1.10	178	179	0.12	0.02	28.9	216

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.08	0.64	1.16	0.01	0.01	0.40	0.41	0.01	0.10	0.11	—	777	777	0.06	0.09	1.99	808
Area	0.22	< 0.005	0.31	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.26	1.26	< 0.005	< 0.005	—	1.26
Energy	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	297	297	0.02	< 0.005	—	298
Water	—	—	—	—	—	—	—	—	—	—	3.06	16.0	19.0	0.31	0.01	—	29.2
Waste	—	—	—	—	—	—	—	—	—	—	3.55	0.00	3.55	0.36	0.00	—	12.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	174	174
Total	0.30	0.69	1.51	0.01	0.01	0.40	0.42	0.01	0.10	0.12	6.62	1,091	1,097	0.75	0.10	176	1,323
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.07	0.67	0.99	0.01	0.01	0.40	0.41	0.01	0.10	0.11	—	757	757	0.06	0.09	0.05	786
Area	0.17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	297	297	0.02	< 0.005	—	298
Water	—	—	—	—	—	—	—	—	—	—	3.06	16.0	19.0	0.31	0.01	—	29.2
Waste	—	—	—	—	—	—	—	—	—	—	3.55	0.00	3.55	0.36	0.00	—	12.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	174	174
Total	0.25	0.72	1.03	0.01	0.01	0.40	0.42	0.01	0.10	0.12	6.62	1,070	1,076	0.75	0.10	174	1,300
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.07	0.68	1.02	0.01	0.01	0.40	0.41	0.01	0.10	0.11	—	760	760	0.06	0.09	0.86	790
Area	0.20	< 0.005	0.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.86	0.86	< 0.005	< 0.005	—	0.86
Energy	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	297	297	0.02	< 0.005	—	298
Water	—	—	—	—	—	—	—	—	—	—	3.06	16.0	19.0	0.31	0.01	—	29.2
Waste	—	—	—	—	—	—	—	—	—	—	3.55	0.00	3.55	0.36	0.00	—	12.4

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	174	174
Total	0.28	0.73	1.27	0.01	0.01	0.40	0.41	0.01	0.10	0.12	6.62	1,074	1,080	0.75	0.10	175	1,305
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.12	0.19	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	126	126	0.01	0.02	0.14	131
Area	0.04	< 0.005	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.14	0.14	< 0.005	< 0.005	—	0.14
Energy	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	49.2	49.2	< 0.005	< 0.005	—	49.3
Water	—	—	—	—	—	—	—	—	—	—	0.51	2.64	3.15	0.05	< 0.005	—	4.83
Waste	—	—	—	—	—	—	—	—	—	—	0.59	0.00	0.59	0.06	0.00	—	2.06
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.8	28.8
Total	0.05	0.13	0.23	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	1.10	178	179	0.12	0.02	28.9	216

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.47	4.33	5.65	0.01	0.16	—	0.16	0.14	—	0.14	—	852	852	0.03	0.01	—	855
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.12	0.15	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	23.3	23.3	< 0.005	< 0.005	—	23.4
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.87	3.87	< 0.005	< 0.005	—	3.88
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.78	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	141	141	0.01	< 0.005	0.52	143
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.59	3.59	< 0.005	< 0.005	0.01	3.64
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.59	0.59	< 0.005	< 0.005	< 0.005	0.60
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Site Preparation (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.47	4.16	5.57	0.01	0.21	—	0.21	0.20	—	0.20	—	859	859	0.03	0.01	—	862
Dust From Material Movement	—	—	—	—	—	0.14	0.14	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.35	2.35	< 0.005	< 0.005	—	2.36
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.39	0.39	< 0.005	< 0.005	—	0.39
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.39	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	70.5	70.5	< 0.005	< 0.005	0.26	71.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.18	0.18	< 0.005	< 0.005	< 0.005	0.18
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.03	0.03	< 0.005	< 0.005	< 0.005	0.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.09	10.1	10.0	0.02	0.46	—	0.46	0.43	—	0.43	—	1,714	1,714	0.07	0.01	—	1,720

Dust From Material Movement	—	—	—	—	—	1.38	1.38	—	0.67	0.67	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.06	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.39	9.39	< 0.005	< 0.005	—	9.42
Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.55	1.55	< 0.005	< 0.005	—	1.56
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.58	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	106	106	< 0.005	< 0.005	0.39	107
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.54	0.54	< 0.005	< 0.005	< 0.005	0.55
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.09	0.09	< 0.005	< 0.005	< 0.005	0.09
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.52	5.14	6.94	0.01	0.22	—	0.22	0.20	—	0.20	—	1,305	1,305	0.05	0.01	—	1,309
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.52	5.14	6.94	0.01	0.22	—	0.22	0.20	—	0.20	—	1,305	1,305	0.05	0.01	—	1,309
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	1.41	1.90	< 0.005	0.06	—	0.06	0.05	—	0.05	—	357	357	0.01	< 0.005	—	359
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.26	0.35	< 0.005	0.01	—	0.01	0.01	—	0.01	—	59.2	59.2	< 0.005	< 0.005	—	59.4
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.23	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	40.9	40.9	< 0.005	< 0.005	0.15	41.5
Vendor	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	35.5	35.5	< 0.005	0.01	0.10	37.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.17	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	37.5	37.5	< 0.005	< 0.005	< 0.005	37.9
Vendor	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	35.5	35.5	< 0.005	0.01	< 0.005	37.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.4	10.4	< 0.005	< 0.005	0.02	10.6
Vendor	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.73	9.73	< 0.005	< 0.005	0.01	10.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.72	1.72	< 0.005	< 0.005	< 0.005	1.75
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.61	1.61	< 0.005	< 0.005	< 0.005	1.69

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
---------	------	------	------	------	------	------	------	------	------	------	------	---	------	------	------	------	------

3.9. Paving (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51	4.37	5.31	0.01	0.19	—	0.19	0.18	—	0.18	—	823	823	0.03	0.01	—	826
Paving	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51	4.37	5.31	0.01	0.19	—	0.19	0.18	—	0.18	—	823	823	0.03	0.01	—	826
Paving	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	1.20	1.46	< 0.005	0.05	—	0.05	0.05	—	0.05	—	226	226	0.01	< 0.005	—	226
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.22	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	37.4	37.4	< 0.005	< 0.005	—	37.5

Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	1.36	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	247	247	0.01	0.01	0.91	250
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	1.03	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	226	226	0.01	0.01	0.02	229
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.03	0.30	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	62.8	62.8	< 0.005	< 0.005	0.11	63.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.4	10.4	< 0.005	< 0.005	0.02	10.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Architectural Coating (2025) - Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	0.69	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	0.69	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.24	0.31	< 0.005	0.01	—	0.01	0.01	—	0.01	—	36.6	36.6	< 0.005	< 0.005	—	36.7
Architectural Coatings	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.06	6.06	< 0.005	< 0.005	—	6.08
Architectural Coatings	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.17	8.17	< 0.005	< 0.005	0.03	8.29
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.49	7.49	< 0.005	< 0.005	< 0.005	7.59
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.08	2.08	< 0.005	< 0.005	< 0.005	2.11
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.34	0.34	< 0.005	< 0.005	< 0.005	0.35
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.01	0.60	0.33	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	555	555	0.05	0.09	1.14	584
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
General Office Building	0.07	0.04	0.83	< 0.005	< 0.005	0.25	0.25	< 0.005	0.06	0.06	—	222	222	0.01	< 0.005	0.84	224
Total	0.08	0.64	1.16	0.01	0.01	0.40	0.41	0.01	0.10	0.11	—	777	777	0.06	0.09	1.99	808
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.01	0.63	0.33	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	555	555	0.05	0.09	0.03	583
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
General Office Building	0.07	0.04	0.66	< 0.005	< 0.005	0.25	0.25	< 0.005	0.06	0.06	—	202	202	0.01	0.01	0.02	204
Total	0.07	0.67	0.99	0.01	0.01	0.40	0.41	0.01	0.10	0.11	—	757	757	0.06	0.09	0.05	786
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	< 0.005	0.12	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	91.8	91.8	0.01	0.01	0.08	96.5

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
General Office Building	0.01	0.01	0.13	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01	—	34.0	34.0	< 0.005	< 0.005	0.06	34.3
Total	0.01	0.12	0.19	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	126	126	0.01	0.02	0.14	131

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	208	208	0.01	< 0.005	—	209
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	16.6	16.6	< 0.005	< 0.005	—	16.6
General Office Building	—	—	—	—	—	—	—	—	—	—	—	12.7	12.7	< 0.005	< 0.005	—	12.8
Total	—	—	—	—	—	—	—	—	—	—	—	237	237	0.01	< 0.005	—	238
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	208	208	0.01	< 0.005	—	209

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	16.6	16.6	< 0.005	< 0.005	—	16.6
General Office Building	—	—	—	—	—	—	—	—	—	—	—	12.7	12.7	< 0.005	< 0.005	—	12.8
Total	—	—	—	—	—	—	—	—	—	—	—	237	237	0.01	< 0.005	—	238
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	34.5	34.5	< 0.005	< 0.005	—	34.6
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	2.74	2.74	< 0.005	< 0.005	—	2.75
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.11	2.11	< 0.005	< 0.005	—	2.11
Total	—	—	—	—	—	—	—	—	—	—	—	39.3	39.3	< 0.005	< 0.005	—	39.5

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	55.1	55.1	< 0.005	< 0.005	—	55.2
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
General Office Building	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.40	4.40	< 0.005	< 0.005	—	4.41

Total	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	59.5	59.5	0.01	< 0.005	—	59.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	55.1	55.1	< 0.005	< 0.005	—	55.2
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
General Office Building	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.40	4.40	< 0.005	< 0.005	—	4.41
Total	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	59.5	59.5	0.01	< 0.005	—	59.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.12	9.12	< 0.005	< 0.005	—	9.14
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
General Office Building	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.73	0.73	< 0.005	< 0.005	—	0.73
Total	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.84	9.84	< 0.005	< 0.005	—	9.87

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.05	< 0.005	0.31	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.26	1.26	< 0.005	< 0.005	—	1.26
Total	0.22	< 0.005	0.31	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.26	1.26	< 0.005	< 0.005	—	1.26
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	< 0.005	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.14	0.14	< 0.005	< 0.005	—	0.14
Total	0.04	< 0.005	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.14	0.14	< 0.005	< 0.005	—	0.14

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	2.89	15.0	17.9	0.30	0.01	—	27.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.12	0.12	< 0.005	< 0.005	—	0.12
General Office Building	—	—	—	—	—	—	—	—	—	—	0.17	0.88	1.05	0.02	< 0.005	—	1.62
Total	—	—	—	—	—	—	—	—	—	—	3.06	16.0	19.0	0.31	0.01	—	29.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	2.89	15.0	17.9	0.30	0.01	—	27.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.12	0.12	< 0.005	< 0.005	—	0.12
General Office Building	—	—	—	—	—	—	—	—	—	—	0.17	0.88	1.05	0.02	< 0.005	—	1.62
Total	—	—	—	—	—	—	—	—	—	—	3.06	16.0	19.0	0.31	0.01	—	29.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	0.48	2.48	2.96	0.05	< 0.005	—	4.54
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.02	0.02	< 0.005	< 0.005	—	0.02
General Office Building	—	—	—	—	—	—	—	—	—	—	0.03	0.15	0.17	< 0.005	< 0.005	—	0.27
Total	—	—	—	—	—	—	—	—	—	—	0.51	2.64	3.15	0.05	< 0.005	—	4.83

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	3.30	0.00	3.30	0.33	0.00	—	11.6
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	0.25	0.00	0.25	0.03	0.00	—	0.88
Total	—	—	—	—	—	—	—	—	—	—	3.55	0.00	3.55	0.36	0.00	—	12.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Refrigerated Warehouse Rail	—	—	—	—	—	—	—	—	—	—	3.30	0.00	3.30	0.33	0.00	—	11.6
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	0.25	0.00	0.25	0.03	0.00	—	0.88
Total	—	—	—	—	—	—	—	—	—	—	3.55	0.00	3.55	0.36	0.00	—	12.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	0.55	0.00	0.55	0.05	0.00	—	1.91
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	0.04	0.00	0.04	< 0.005	0.00	—	0.15
Total	—	—	—	—	—	—	—	—	—	—	0.59	0.00	0.59	0.06	0.00	—	2.06

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

Refrigerated Warehouse-No	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	174	174
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	174	174
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	174	174
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	174	174
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.8	28.8
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.8	28.8

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

Equipme Type	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)

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

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

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

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	7/1/2025	7/15/2025	5.00	10.0	—
Site Preparation	Site Preparation	7/16/2025	7/17/2025	5.00	1.00	—
Grading	Grading	7/18/2025	7/20/2025	5.00	2.00	—

Building Construction	Building Construction	7/21/2025	12/8/2025	5.00	100	—
Paving	Paving	7/21/2025	12/5/2025	5.00	100	—
Architectural Coating	Architectural Coating	7/21/2025	12/5/2025	5.00	100	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	1.00	367	0.40
Demolition	Tractors/Loaders/Back hoes	Diesel	Average	2.00	6.00	84.0	0.37
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	6.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	6.00	367	0.40
Grading	Tractors/Loaders/Back hoes	Diesel	Average	1.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	4.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	6.00	82.0	0.20
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	2.00	8.00	84.0	0.37
Paving	Cement and Mortar Mixers	Diesel	Average	4.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	7.00	81.0	0.42
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Paving	Tractors/Loaders/Back hoes	Diesel	Average	1.00	7.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	10.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	0.00	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	5.00	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	7.50	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	2.90	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	1.15	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	17.5	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT

Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	0.58	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Sweep paved roads once per month	9%	9%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	10,533	3,511	779

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	—	—
Site Preparation	—	—	0.50	0.00	—
Grading	—	—	1.50	0.00	—
Paving	0.00	0.00	0.00	0.00	0.30

5.6.2. Construction Earthmoving Control Strategies

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

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Refrigerated Warehouse-No Rail	0.00	0%
Parking Lot	0.30	100%
General Office Building	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

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

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Refrigerated Warehouse-No Rail	4.00	4.00	4.00	1,460	166	166	166	60,444
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	36.0	36.0	36.0	13,140	357	357	357	130,437

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	10,533	3,511	779

5.10.3. Landscape Equipment

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

5.11. Operational Energy Consumption

5.11.1. Unmitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBtu/yr)
Refrigerated Warehouse-No Rail	142,802	532	0.0330	0.0040	171,817
Parking Lot	11,369	532	0.0330	0.0040	0.00
General Office Building	8,726	532	0.0330	0.0040	13,720

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Refrigerated Warehouse-No Rail	1,508,213	0.00

Parking Lot	0.00	16,059
General Office Building	88,867	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Refrigerated Warehouse-No Rail	6.13	—
Parking Lot	0.00	—
General Office Building	0.47	—

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
Refrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

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

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

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

5.16.2. Process Boilers

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

5.17. User Defined

Equipment Type	Fuel Type
----------------	-----------

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
--------------------------	----------------------	---------------	-------------

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
--------------------	---------------	-------------

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	26.4	annual days of extreme heat
Extreme Precipitation	4.90	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

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

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about $\frac{3}{4}$ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

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

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

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	98.7

AQ-PM	83.5
AQ-DPM	41.9
Drinking Water	88.0
Lead Risk Housing	49.2
Pesticides	0.00
Toxic Releases	77.0
Traffic	34.1
Effect Indicators	—
CleanUp Sites	28.4
Groundwater	0.00
Haz Waste Facilities/Generators	78.1
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	80.5
Cardio-vascular	92.8
Low Birth Weights	39.9
Socioeconomic Factor Indicators	—
Education	80.3
Housing	91.0
Linguistic	59.0
Poverty	82.1
Unemployment	90.3

7.2. Healthy Places Index Scores

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

Indicator	Result for Project Census Tract
Economic	—

Above Poverty	13.28114975
Employed	12.60105223
Median HI	20.74939048
Education	—
Bachelor's or higher	18.02900038
High school enrollment	5.042987296
Preschool enrollment	10.36827922
Transportation	—
Auto Access	25.2662646
Active commuting	68.0354164
Social	—
2-parent households	59.89991018
Voting	5.82574105
Neighborhood	—
Alcohol availability	22.87950725
Park access	10.90722443
Retail density	49.30065443
Supermarket access	72.71910689
Tree canopy	40.72885923
Housing	—
Homeownership	23.81624535
Housing habitability	26.52380341
Low-inc homeowner severe housing cost burden	87.25779546
Low-inc renter severe housing cost burden	9.508533299
Uncrowded housing	21.00603105
Health Outcomes	—
Insured adults	24.03438984
Arthritis	63.4

Asthma ER Admissions	13.3
High Blood Pressure	65.9
Cancer (excluding skin)	91.6
Asthma	3.8
Coronary Heart Disease	69.4
Chronic Obstructive Pulmonary Disease	25.1
Diagnosed Diabetes	28.6
Life Expectancy at Birth	6.3
Cognitively Disabled	28.0
Physically Disabled	18.7
Heart Attack ER Admissions	1.9
Mental Health Not Good	8.9
Chronic Kidney Disease	55.3
Obesity	9.6
Pedestrian Injuries	96.9
Physical Health Not Good	16.6
Stroke	29.9
Health Risk Behaviors	—
Binge Drinking	66.7
Current Smoker	10.9
No Leisure Time for Physical Activity	18.6
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	23.1
Elderly	81.9
English Speaking	37.7
Foreign-born	42.0

Outdoor Workers	21.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	59.1
Traffic Density	27.9
Traffic Access	23.0
Other Indices	—
Hardship	90.4
Other Decision Support	—
2016 Voting	15.8

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	82.0
Healthy Places Index Score for Project Location (b)	7.00
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Lot acreage of the parking lot changed to reflect actual total lot acreage of the Project Site.
Construction: Construction Phases	Building Construction, Paving, and Architectural Coating all assumed to occur simultaneously.
Operations: Vehicle Data	Traffic info taken from the Traffic Impact Report
Operations: Fleet Mix	Fleet mix changed to match information provided.